

BIOTIME INC
Form S-4/A
January 14, 2019

As filed with the Securities and Exchange Commission on January 11 , 2019

Registration No. 333-229141

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 1 TO

FORM S-4

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

BIOTIME, INC.

(Exact name of registrant as specified in its charter)

California	001-12830	94-3127919
(State or other jurisdiction of incorporation or organization)	(Commission File Number)	(I.R.S. Employer Identification Number)

1010 Atlantic Avenue

Suite 102

Alameda, California 94501

(510) 521-3390

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

Brian M. Culley

Chief Executive Officer

BioTime, Inc.

1010 Atlantic Avenue

Suite 102

Alameda, California 94501

(510) 521-3390

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Glen Sato, Esq.

Michael H. Mulroy

Brian Lee, Esq.

Tali Sealman, Esq.	Chief Executive Officer	Ilan Katz, Esq.
Cooley LLP	Asterias Biotherapeutics, Inc.	Dentons US LLP
3175 Hanover Street	6300 Dumbarton Circle	1221 Avenue of the Americas
Palo Alto, CA 94304-1130	Fremont, CA 94555	New York, New York 10020
(650) 843-5000	(510) 456-3800	(212) 768-6700

Approximate date of commencement of proposed sale of the securities to the public: As soon as practicable after this registration statement becomes effective and upon completion of the Merger.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
(Do not check if a smaller reporting company)	Emerging Growth Company

If applicable, place an in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer)

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer)

This registration statement shall hereafter become effective in accordance with the provisions of Section 8(a) of the Securities Act of 1933.

Information contained herein is subject to completion or amendment. A registration statement relating to the securities to be issued in the Merger has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This joint proxy statement/prospectus shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any jurisdiction in which such offer, solicitation or sale is not permitted or would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

PRELIMINARY JOINT PROXY STATEMENT/PROSPECTUS

DATED JANUARY 11 , 2019, SUBJECT TO COMPLETION

PRELIMINARY COPY

[], 2019

MERGER PROPOSAL—YOUR VOTE IS VERY IMPORTANT

EXPLANATORY NOTE

On November 7, 2018, BioTime, Inc. ("**BioTime**"), Asterias Biotherapeutics, Inc. ("**Asterias**") and Patrick Merger Sub, Inc., a wholly owned subsidiary of BioTime ("**Merger Sub**"), entered into an Agreement and Plan of Merger (the "**Merger Agreement**"). Pursuant to the terms of and subject to the conditions set forth in the Merger Agreement, Merger Sub will merge with and into Asterias (the "**Merger**"), with Asterias surviving the Merger as a wholly owned subsidiary of BioTime.

If the Merger is completed, Asterias stockholders will have the right to receive 0.71 (the “**Exchange Ratio**”) BioTime Common Shares for each share of Asterias Common Stock issued and outstanding (except shares held by Asterias as treasury stock or shares owned by BioTime or Merger Sub), with cash paid in lieu of fractional shares. This Exchange Ratio is fixed and will not be adjusted to reflect stock price changes prior to the closing of the Merger. Based on the closing price of BioTime Common Shares on the NYSE American stock exchange (“**NYSE American**”) on November 7, 2018, the last full trading day before the public announcement of BioTime’s proposal to acquire Asterias, the Exchange Ratio represents approximately \$1.49 in value for each share of Asterias Common Stock. Based on the closing price of BioTime Common Shares on NYSE American on [], 2019, the latest practicable date before the date of the enclosed joint proxy statement/prospectus, the Exchange Ratio represents approximately \$[] in value of each share of Asterias Common Stock. BioTime shareholders will continue to own their existing BioTime Common Shares. BioTime Common Shares are currently traded on NYSE American under the symbol “BTX” and Asterias Common Stock is currently traded on NYSE American under the symbol “AST.” **We urge you to obtain current market quotations of BioTime Common Shares and Asterias Common Stock.**

Based on the estimated number of shares of Asterias Common Stock outstanding on [], 2019, the record date for the special meetings, BioTime expects to issue approximately [] BioTime Common Shares to Asterias stockholders in connection with the Merger, which would result in BioTime shareholders owning approximately 84% of the combined company and former Asterias stockholders owning approximately 16% of the combined company upon completion of the Merger. As of September 30, 2018, BioTime owned approximately 39% of the issued and outstanding shares of Asterias Common Stock.

BioTime and Asterias will each hold special meetings of their respective shareholders and stockholders in connection with the proposed Merger.

At the special meeting of BioTime shareholders (the “**BioTime Special Meeting**”), BioTime shareholders will be asked to consider and vote on (i) a proposal to approve the issuance of BioTime Common Shares to the stockholders of Asterias in the Merger (the “**BioTime Share Issuance Proposal**”) and (ii) a proposal to adjourn the special meeting of BioTime shareholders, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes to approve the BioTime Share Issuance Proposal (the “**BioTime Adjournment Proposal**”). Approval of the BioTime Share Issuance Proposal requires the affirmative vote of the holders of a majority of the total votes of BioTime Common Shares cast in person or by proxy at the special meeting to approve the share issuance pursuant to NYSE American Rules. Approval of the BioTime Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal pursuant to BioTime’s Amended and Restated Bylaws, as amended to date.

At the special meeting of Asterias stockholders (the “**Asterias Special Meeting**”), Asterias stockholders will be asked to consider and vote on (i) a proposal to adopt the Merger Agreement and approve the transactions contemplated by the Merger Agreement, including the Merger (the “**Asterias Merger Proposal**”) and (ii) a proposal to adjourn the special meeting of Asterias stockholders, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes to approve the Asterias Merger Proposal (the “**Asterias Adjournment Proposal**”). Approval of the Asterias Merger Proposal requires the affirmative vote of the holders of a majority of the outstanding shares of Asterias Common Stock entitled to vote in person or by proxy at the special meeting pursuant to Delaware law. Approval of the Asterias Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal pursuant to Asterias’ Bylaws, as amended to date.

We cannot complete the Merger unless the BioTime shareholders approve the BioTime Share Issuance Proposal and the Asterias stockholders approve the Asterias Merger Proposal. **Your vote is very important, regardless of the number of shares you own. Whether or not you expect to attend your special meeting in person, please vote your shares as promptly as possible by:**

(1) accessing the Internet website specified on your proxy card,

(2) calling the toll-free number specified on your proxy card, or

(3) marking, signing, dating and returning all proxy cards that you receive in the postage-paid envelope provided,

so that your shares may be represented and voted at the BioTime Special Meeting or Asterias Special Meeting, as applicable.

On November 7, 2018, a special committee (the “**BioTime Special Committee**”) comprised only of disinterested and independent members of the BioTime board of directors (the “**BioTime Board**”) unanimously determined that the Merger Agreement and the issuance of BioTime Common Shares to Asterias stockholders in connection with the Merger (the “**BioTime Share Issuance**”), are fair to, advisable and in the best interests of BioTime and its shareholders and recommended to the BioTime Board that it approve the Merger Agreement, the Merger and the BioTime Share Issuance. Thereafter, at a duly convened meeting of the BioTime Board to consider the unanimous recommendation of the BioTime Special Committee, the BioTime Board (by unanimous vote of the disinterested members of the BioTime Board, with Neal C. Bradsher, Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) approved the Merger Agreement and the BioTime Share Issuance and determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders. **The BioTime Board accordingly recommends that the BioTime shareholders vote “FOR” each of the BioTime Share Issuance Proposal and the BioTime Adjournment Proposal.**

On November 7, 2018, a special committee (the “**Asterias Special Committee**”) comprised only of disinterested and independent members of the Asterias board of directors (the “**Asterias Board**”) unanimously determined that the Merger Agreement and the Merger are fair to, advisable and in the best interests of the Asterias stockholders and recommended to the Asterias Board that it approve the Merger Agreement and the Merger. Thereafter, at a duly convened meeting of the Asterias Board to consider the unanimous recommendation of the Asterias Special Committee, the members of the Asterias Board (by unanimous vote of the disinterested members of the Asterias Board, with Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) approved the Merger Agreement and determined that the Merger Agreement and the transactions contemplated thereby, including the Merger, are fair to, advisable and in the best interests of Asterias and its stockholders. **The Asterias Board accordingly recommends that the Asterias stockholders vote “FOR” each of the Asterias Merger Proposal and the Asterias Adjournment Proposal.**

The obligations of BioTime and Asterias to complete the Merger are subject to the satisfaction or waiver of conditions set forth in the Merger Agreement. More information about BioTime, Asterias and the Merger is contained in the enclosed joint proxy statement/prospectus. BioTime and Asterias encourage you to read the entire enclosed joint proxy statement/prospectus carefully, including the section entitled “*Risk Factors*”.

Sincerely,

Brian M. Culley

Michael H. Mulroy

Chief Executive Officer Chief Executive Officer

BioTime, Inc.

Asterias Biotherapeutics, Inc.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THE MERGER OR THE SECURITIES TO BE ISSUED IN CONNECTION WITH THE MERGER OR PASSED UPON THE ADEQUACY OR ACCURACY OF THE DISCLOSURE IN THIS DOCUMENT. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of the enclosed joint proxy statement/prospectus is [], and it is first being mailed or otherwise delivered to the shareholders of BioTime and the stockholders of Asterias on or about [].

BIOTIME, INC.

1010 Atlantic Avenue, Suite 102

Alameda, California 94501

NOTICE OF SPECIAL MEETING OF SHAREHOLDERS

TO BE HELD ON [], 2019

Dear Shareholders of BioTime, Inc.:

We are pleased to invite you to attend the special meeting of shareholders of BioTime, Inc., a California corporation ("**BioTime**"), which will be held at [] on [], 2019 at [], local time (the "**BioTime Special Meeting**"), for the following purposes:

to consider and vote on a proposal to approve the issuance (the "**BioTime Share Issuance**") of Common Shares of BioTime, no par value per share (the "**BioTime Common Shares**"), to Asterias stockholders pursuant to the Agreement and Plan of Merger, dated as of November 7, 2018 (the "**Merger Agreement**"), among BioTime, Asterias Biotherapeutics, Inc. ("**Asterias**"), and Patrick Merger Sub, Inc. ("**Merger Sub**"), a wholly owned subsidiary of BioTime, pursuant to which Merger Sub will merge with and into Asterias (the "**Merger**"), with Asterias surviving the Merger as a wholly owned subsidiary of BioTime, a copy of which is attached as **Annex A** to the joint proxy statement/prospectus accompanying this notice (the "**BioTime Share Issuance Proposal**"); and

to consider and vote on a proposal to adjourn the BioTime Special Meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes to approve the BioTime Share Issuance Proposal (the "**BioTime Adjournment Proposal**").

BioTime will transact no other business at the special meeting except such business as may properly be brought before the special meeting or any adjournment or postponement thereof. Please refer to the attached joint proxy statement/prospectus for further information with respect to the business to be transacted at the BioTime Special Meeting.

The BioTime board of directors (the "**BioTime Board**") has fixed the close of business on [], 2019 as the record date for determination of BioTime shareholders entitled to receive notice of, and to vote at, the BioTime Special Meeting or

any adjournments or postponements thereof. Only holders of record of BioTime Common Shares at the close of business on the record date are entitled to vote at the BioTime Special Meeting and any adjournment or postponement of the BioTime Special Meeting.

The BioTime Board formed a committee (the “**BioTime Special Committee**”) of disinterested and independent directors of BioTime to evaluate the Merger and the BioTime Share Issuance and the BioTime Special Committee unanimously determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders, and recommended to the BioTime Board that it approve the Merger Agreement, the Merger and the BioTime Share Issuance.

At a meeting duly called to consider the recommendation of the Special Committee, the members of the BioTime Board (by unanimous vote of the disinterested members of the BioTime Board, with Neal C. Bradsher, Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) (1) determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders, (2) approved the Merger Agreement and the transactions contemplated thereby and (3) resolved to recommend that BioTime shareholders vote for the approval of the BioTime Share Issuance.

The BioTime Board recommends that BioTime shareholders vote “FOR” the BioTime Share Issuance Proposal and “FOR” the BioTime Adjournment Proposal.

Approval of the BioTime Share Issuance Proposal requires the affirmative vote of the holders of a majority of the total votes of BioTime Common Shares cast in person or by proxy at the BioTime Special Meeting to approve the BioTime Share Issuance pursuant to NYSE American Rules. Approval of the BioTime Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal pursuant to BioTime’s Bylaws, as amended to date.

Your vote is important. Whether or not you expect to attend in person, we urge you to vote your shares as promptly as possible by:

(1) accessing the Internet website specified on your proxy card;

(2) calling the toll-free number specified on your proxy card; or

(3) marking, signing, dating and returning the enclosed proxy card in the postage-paid envelope provided,

so that your shares may be represented and voted at the BioTime Special Meeting. If your shares are held in the name of a broker, bank, trust company or other nominee, please follow the instructions on the voting instruction card furnished by the record holder.

Please note that if you hold shares in different accounts, it is important that you vote the shares represented by each account.

The enclosed joint proxy statement/prospectus provides a detailed description of the Merger and the Merger Agreement. We urge you to read this joint proxy statement/prospectus, including any documents incorporated by reference, and the annexes carefully and in their entirety. If you have any questions concerning the Merger or this joint proxy statement/prospectus, would like additional copies or need help voting your BioTime Common Shares, please contact BioTime:

BioTime, Inc.

1010 Atlantic Avenue, Suite 102

Alameda, California 94501

Attention: Investor Relations

Telephone: (510) 871-4188

By Order of the Board of Directors,

Brian M. Culley

Chief Executive Officer

ASTERIAS BIOTHERAPEUTICS, INC.

6300 Dumbarton Circle

Fremont, California 94555

NOTICE OF THE SPECIAL MEETING OF STOCKHOLDERS TO BE HELD ON [], 2019

Dear Stockholders of Asterias Biotherapeutics, Inc.:

We are pleased to invite you to attend the special meeting of stockholders of Asterias Biotherapeutics, Inc., a Delaware corporation ("**Asterias**"), which will be held at [] on [], 2019 at [], local time (the "**Asterias Special Meeting**"), for the following purposes:

to consider and vote on a proposal to adopt the Agreement and Plan of Merger, dated as of November 7, 2018 (the "**Merger Agreement**"), among Asterias, BioTime, Inc., a Delaware corporation ("**BioTime**"), and Patrick Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of BioTime ("**Merger Sub**"), pursuant to which Merger Sub will merge with and into Asterias (the "**Merger**"), with Asterias surviving the Merger as a wholly owned subsidiary of BioTime, a copy of which is attached as **Annex A** to the joint proxy statement/prospectus accompanying this notice, and to approve the transactions contemplated by the Merger Agreement, including the Merger, pursuant to which each outstanding share of Series A common stock of Asterias, par value \$0.0001 per share (the "**Asterias Common Stock**"), will be converted into the right to receive 0.71 Common Shares of BioTime, no par value per share, with cash paid in lieu of fractional shares (the "**Asterias Merger Proposal**"); and

to consider and vote on a proposal to adjourn the Asterias Special Meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes to approve the Asterias Merger Proposal (the "**Asterias Adjournment Proposal**").

Asterias will transact no other business at the Asterias Special Meeting except such business as may properly be brought before the special meeting or any adjournment or postponement thereof. Please refer to the attached joint proxy statement/prospectus for further information with respect to the business to be transacted at the Asterias Special Meeting.

The Asterias Board of Directors (the “**Asterias Board**”) has fixed the close of business on [], 2019 as the record date for determination of Asterias stockholders entitled to receive notice of, and to vote at, the Asterias Special Meeting or any adjournments or postponements thereof. Only holders of record of shares of Asterias Common Stock at the close of business on the record date are entitled to notice of, and to vote at, the special meeting and at any adjournment of the meeting.

The Asterias Board formed a committee (the “**Asterias Special Committee**”) of independent and disinterested directors of Asterias to evaluate the Merger and the Asterias Special Committee unanimously determined that the Merger Agreement and the Merger are fair to, advisable and in the best interests of the stockholders of Asterias, and recommended to the Asterias Board that it approve the Merger Agreement and the Merger. At a meeting duly called to consider the recommendation of the Asterias Special Committee, the Asterias Board (by unanimous vote of the disinterested members of the Asterias Board, with Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) based in part on the unanimous recommendation of the Special Committee: (1) determined that the Merger Agreement and the Merger are fair to, advisable and in the best interests of Asterias and its stockholders, (2) approved the Merger Agreement and the transactions contemplated thereby and (3) resolved to recommend that Asterias stockholders vote for the approval and adoption of the Merger Agreement and the transactions contemplated thereby, including the Merger.

The Asterias Board recommends that Asterias stockholders vote “FOR” the Asterias Merger Proposal and “FOR” the Asterias Adjournment Proposal.

Approval of the Asterias Merger Proposal requires the affirmative vote of holders of a majority of the outstanding shares of Asterias Common Stock entitled to vote in person or by proxy at the special meeting pursuant to Delaware law. Approval of the Asterias Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal pursuant to Asterias’ Amended and Restated Bylaws, as amended to date.

Your vote is important. Whether or not you expect to attend in person, we urge you to vote your shares as promptly as possible by:

(1) accessing the Internet website specified on your proxy card;

(2) calling the toll-free number specified on your proxy card; or

(3) marking, signing, dating and returning the enclosed proxy card in the postage-paid envelope provided,

so that your shares may be represented and voted at the Asterias Special Meeting. If your shares are held in the name of a broker, bank, trust company or other nominee, please follow the instructions on the voting instruction card furnished by the record holder.

Please note that if you hold shares in different accounts, it is important that you vote the shares represented by each account.

The enclosed joint proxy statement/prospectus provides a detailed description of the Merger and the Merger Agreement. We urge you to read this joint proxy statement/prospectus, including any documents incorporated by reference, and the annexes carefully and in their entirety. If you have any questions concerning the Merger or this joint proxy statement/prospectus, would like additional copies or need help voting your shares of Asterias Common Stock, please contact Asterias' proxy solicitor:

Advantage Proxy, Inc.

P.O. Box 13581

Des Moines, WA 98198

Toll Free Telephone: 877-870-8565

Main Telephone: 206-870-8565

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We appreciate your continued support of Asterias and look forward to either greeting you personally at the Asterias Special Meeting or receiving your proxy.

By order of the Board of Directors,

Michael H. Mulroy

Chief Executive Officer

ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about BioTime and Asterias from documents that are not included in or delivered with the accompanying joint proxy statement/prospectus. This information is available to you without charge upon your written or oral request. You can obtain documents incorporated by reference into the accompanying joint proxy statement/prospectus (other than certain exhibits or schedules to these documents) by requesting them in writing or by telephone from BioTime or Asterias at the following addresses and telephone numbers:

For BioTime Shareholders:	For Asterias Stockholders:
BioTime, Inc.	Asterias Biotherapeutics, Inc.
1010 Atlantic Avenue, Suite 102	6300 Dumbarton Circle
Alameda, California 94501	Fremont, CA 94555
Attention: Investor Relations	Attention: Investor Relations
Telephone: (510) 871-4188	Telephone: (650) 963-5920

In addition, if you have questions about the Merger or the accompanying joint proxy statement/prospectus, would like additional copies of the accompanying joint proxy statement/prospectus or need to obtain proxy cards or other information related to the proxy solicitation, please contact BioTime Investor Relations at 510-871-4188, or Advantage Proxy, the proxy solicitor for Asterias, toll-free at 877-870-8565 or international at +1 206-870-8565.

If you would like to request documents, please do so no later than five business days before the date of the BioTime Special Meeting (which meeting is to be held on [], 2019) or five business days before the date of the Asterias Special Meeting (which meeting is to be held on [], 2019), as applicable.

For a more detailed description of the information incorporated by reference in the accompanying joint proxy statement/prospectus and how you may obtain it, see the section entitled “*Where You Can Find More Information*” of the accompanying joint proxy statement/prospectus.

ABOUT THIS JOINT PROXY STATEMENT/PROSPECTUS

This joint proxy statement/prospectus, which forms part of a registration statement on Form S-4 filed with the U.S. Securities and Exchange Commission (the “**SEC**”) by BioTime (File No. 333-229141), constitutes a prospectus of BioTime under Section 5 of the Securities Act of 1933, as amended (the “**Securities Act**”), with respect to the BioTime Common Shares to be issued to Asterias stockholders pursuant to the Merger Agreement. This joint proxy statement/prospectus also constitutes a joint proxy statement for BioTime and Asterias under Section 14(a) of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”). It also constitutes a notice of meeting with respect to the special meeting of BioTime shareholders and a notice of meeting with respect to the special meeting of Asterias stockholders.

You should rely only on the information contained or incorporated by reference into this joint proxy statement/prospectus. No one has been authorized to provide you with information that is different from that contained in, or incorporated by reference into, this joint proxy statement/prospectus. This joint proxy statement/prospectus is dated [], 2019, and you should assume that the information contained in, or incorporated by reference into, this joint proxy statement/prospectus is accurate only as of such date. Neither our mailing of this joint proxy statement/prospectus to BioTime shareholders or Asterias stockholders, nor the issuance by BioTime of BioTime Common Shares in connection with the Merger, will create any implication to the contrary.

This joint proxy statement/prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction in which or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction. Information contained in this joint proxy statement/prospectus regarding BioTime has been provided by BioTime, and information contained in this joint proxy statement/prospectus regarding Asterias has been provided by Asterias.

Neither BioTime shareholders nor Asterias stockholders should construe the contents of this joint proxy statement/prospectus as legal, tax or financial advice. BioTime shareholders and Asterias stockholders should consult with their own legal, tax, financial or other professional advisors. All summaries of, and references to, the agreements governing the terms of the transactions described in this joint proxy statement/prospectus are qualified by the full copies of and complete text of such agreements in the forms attached hereto as annexes, which are available on the Electronic Data Gathering Analysis and Retrieval System (“**EDGAR**”) of the SEC website at www.sec.gov.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THE SECURITIES TO BE ISSUED IN CONNECTION WITH THE MERGER OR DETERMINED IF THIS JOINT PROXY STATEMENT/PROSPECTUS IS ACCURATE OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

Unless otherwise indicated or as the context otherwise requires, references in this joint proxy statement/prospectus to:

“Asterias” refers to Asterias Biotherapeutics, Inc., a Delaware corporation;

“Asterias Common Stock” refers to the common stock of Asterias, par value \$0.0001 per share;

“BioTime” refers to BioTime, Inc., a California corporation, and its subsidiaries;

“BioTime Common Shares” refers to the common shares of BioTime, no par value per share;

“Combined Company” refers collectively to BioTime and Asterias, following completion of the Merger;

“Merger” refers to the merger of Merger Sub with and into Asterias, with Asterias surviving the Merger, as contemplated by the Merger Agreement;

“Merger Agreement” refers to the Agreement and Plan of Merger, dated November 7, 2018, among BioTime, Merger Sub and Asterias;

“Merger Sub” refers to Patrick Merger Sub, Inc., a Delaware corporation and wholly owned subsidiary of BioTime; and

“we,” “our” and “us” refer collectively to BioTime and Asterias.

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QUESTIONS AND ANSWERS

The following section provides brief answers to certain questions that you may have regarding the Merger Agreement and the proposed Merger. Please note that this section does not address all issues that may be important to you as a BioTime shareholder or Asterias stockholder, as applicable. Accordingly, you should carefully read this entire joint proxy statement/prospectus, including each of the Annexes and the documents that have been incorporated by reference into this joint proxy statement/prospectus.

Q: Why am I receiving this joint proxy statement/prospectus?

A: You are receiving this joint proxy statement/prospectus because you were a stockholder of record of BioTime or Asterias as of the close of business on the record date for the special meeting of BioTime shareholders (the “**BioTime Special Meeting**”) or the special meeting of Asterias stockholders (the “**Asterias Special Meeting**”), respectively. BioTime and Asterias have agreed to the combination of BioTime and Asterias pursuant to an Agreement and Plan of Merger, dated as of November 7, 2018 (as it may be amended from time to time, the “**Merger Agreement**”), among BioTime, Asterias and Merger Sub, pursuant to which Merger Sub will be merged with and into Asterias (the “**Merger**”) with Asterias surviving the Merger as a wholly owned subsidiary of BioTime. See the section entitled “*The Merger Agreement*” for more information. A copy of the Merger Agreement is attached to this joint proxy statement/prospectus as **Annex A** and incorporated herein by reference. Pursuant to the Merger Agreement, at the effective time of the Merger, each outstanding share of Asterias Common Stock will be converted into the right to receive 0.71 BioTime Common Shares (the “**Exchange Ratio**”), with cash paid in lieu of fractional shares. BioTime shareholders will continue to own their existing BioTime Common Shares.

This joint proxy statement/prospectus serves as the proxy statement through which BioTime and Asterias will provide their respective stockholders with important information regarding their respective special meetings, the Merger and the other transactions contemplated by the Merger Agreement and solicit proxies to obtain the necessary stockholder approvals for the adoption of the Merger Agreement and (in the case of BioTime) the issuance of BioTime Common Shares. It also serves as the prospectus by which BioTime will offer and issue BioTime Common Shares as merger consideration.

The Merger cannot be completed unless, among other things, BioTime shareholders and Asterias stockholders approve the respective proposals to adopt the Merger Agreement and the transactions contemplated thereby, including the Merger and, in the case of BioTime, the issuance of BioTime Common Shares as merger consideration.

BioTime and Asterias will hold separate special meetings to obtain these approvals. This joint proxy statement/prospectus contains important information about the Merger and the special meetings of the stockholders of BioTime and Asterias, and you should read it carefully and in its entirety. The enclosed voting materials allow you to vote your shares without attending your respective special meeting. Your vote is important. We encourage you to vote as soon as possible.

Q: What is the strategic rationale for combining BioTime and Asterias at this time?

A: BioTime and Asterias both believe that this is an opportune time to combine in order to create a leading regenerative medicine company aimed at providing breakthrough solutions in areas of high unmet medical need. BioTime and Asterias expect substantial cost and other financial synergies as well as synergies relating to capabilities and needs as a result of the Merger and believe that the Combined Company will enjoy other advantages from critical mass, including potentially in connection with financing. See the sections entitled “*The Merger—BioTime’s Reasons for the Merger and BioTime Share Issuance*” and “*The Merger—Asterias’ Reasons for the Merger; Recommendation of the Asterias Special Committee and Board of Directors.*”

Q: What will Asterias stockholders receive in the Merger?

A: If the Merger is completed, holders of Asterias Common Stock will be entitled to receive 0.71 BioTime Common Shares for each share of Asterias Common Stock they hold at the effective time of the Merger. Asterias stockholders will not receive any fractional BioTime Common Shares in the Merger. Instead, BioTime will pay cash in lieu of any fractional BioTime Common Shares that an Asterias stockholder would otherwise have been entitled to receive.

As of [], 2019, BioTime owned []% of the outstanding shares of Asterias Common Stock. Pursuant to the Merger Agreement, all such shares of Asterias Common Stock will be cancelled and will cease to exist for no consideration.

Q: What will happen to outstanding Asterias equity awards in the Merger?

A: *Stock Options.* At the Effective Time, each outstanding option to purchase shares of Asterias Common Stock pursuant to Asterias' Amended and Restated 2013 Equity Incentive Plan will be cancelled and extinguished for no consideration and shall cease to exist after the effective time of the Merger.

Restricted Stock Unit Awards. Each outstanding Asterias restricted stock unit award shall vest in full immediately prior to the effective time of the Merger and shall be cancelled and converted into the right to receive, as soon as reasonably practicable after the effective time of the Merger, 0.71 BioTime Common Shares in respect of each share of Asterias Common Stock underlying the Asterias restricted stock unit award. For a full description of the treatment of Asterias restricted stock unit awards, see the section entitled "*The Merger—Treatment of Asterias Equity Awards.*"

Q: What will happen to outstanding Asterias warrants in the Merger?

A: Pursuant to the terms of the Merger Agreement, each outstanding warrant to purchase shares of Asterias Common Stock (the "**Asterias Warrants**") will be treated in accordance with the terms of the applicable Warrant Agreement.

Q: If I am an Asterias stockholder, how will I receive the merger consideration to which I am entitled?

A: After receiving the proper documentation from you, following the effective date of the Merger, the exchange agent will forward to you the BioTime Common Shares and cash in lieu of fractional shares to which you are entitled. For additional information about the exchange of shares of Asterias Common Stock for BioTime Common Shares, see the section entitled “*The Merger—Exchange of Shares in the Merger.*”

Q: What is the value of the merger consideration?

A: The dollar value of the merger consideration may fluctuate between the date of this joint proxy statement/prospectus and the completion of the Merger based upon the market value of BioTime Common Shares. In the Merger, Asterias stockholders will receive the fixed amount of 0.71 BioTime Common Shares in exchange for each share of Asterias Common Stock. Any fluctuation in the market price of BioTime Common Shares after the date of this joint proxy statement/prospectus will change the value of the BioTime Common Shares that Asterias stockholders will receive at the effective time of the Merger.

Based on the closing price of BioTime Common Shares on the NYSE American stock exchange (“**NYSE American**”) on November 7, 2018, the last full trading day before the public announcement of BioTime’s proposal to acquire Asterias, the Exchange Ratio represented approximately \$1.49 in value for each share of Asterias Common Stock. Based on the closing price of BioTime Common Shares on NYSE American on [], 2019, the latest practicable date before the date of this joint proxy statement/prospectus, the Exchange Ratio represented approximately \$[] in value for each share of Asterias Common Stock. We urge you to obtain current market quotations of BioTime Common Shares and Asterias Common Stock.

Q: What will happen to BioTime Common Shares in the Merger?

A: If the Merger is completed, BioTime shareholders will not receive any merger consideration as a result of the Merger and will continue to own their existing BioTime Common Shares.

Q: What percentage of BioTime Common Shares will Asterias stockholders own following the Merger?

A: Based on the estimated number of shares of Asterias and BioTime Common Shares outstanding on [], 2019, the record date for the special meetings, Asterias and BioTime estimate that, upon completion of the Merger, former Asterias stockholders will own approximately []% of BioTime.

Q: Will there be any changes to the BioTime board of directors if the merger becomes effective?

A: The Merger Agreement provides that parties will use commercially reasonable efforts to ensure that the board of directors of the Combined Company following the effective time of the Merger will be comprised of the following individuals: Deborah Andrews, Don M. Bailey, Neal C. Bradsher, Brian M. Culley, Stephen C. Farrell, Alfred D. Kingsley, Michael H. Mulroy, Cavan Redmond and Angus C. Russell. Each of Ms. Andrews and Messrs. Bradsher, Culley, Farrell, Kingsley, Mulroy, Redmond and Russell currently serve on the BioTime board of directors (the **“BioTime Board”**). Mr. Bailey will be appointed to serve on the BioTime Board promptly after the effective time of the Merger. For more information, please see the sections entitled *“The Merger Agreement —Directors of the Combined Company Following the Merger”* on page 90 and *“Management and Other Information of the Combined Company”* on page 137 .

Q: Who will be the executive officers of BioTime immediately following the merger?

A: It is currently expected that the executive officers of BioTime following the merger will be substantially similar to the current executive officers of BioTime. In addition, following the effective time of the merger, BioTime contemplates that certain employees of Asterias will join BioTime as officers of BioTime and thus may become executive officers of BioTime. In the event that new personnel become executive officers of BioTime, certain persons who currently serve as executive officers of Asterias may no longer serve in such capacity. As of the date of this joint proxy statement/prospectus, it is not known which Asterias employees, if any, will become executive officers of BioTime and no determinations by BioTime have been made in this regard. Similarly, it is not known which of Asterias’ current executive officers, if any, will cease to serve in such capacity. The current executive officers of BioTime are: Brian M. Culley (President and Chief Executive Officer) , Brandi Roberts (Chief Financial Officer and Senior Vice President, Finance) and Stephana E. Patton, Ph.D., J.D. (General Counsel and Corporate Secretary).

Q: When and where will the special meetings be held?

A: The BioTime Special Meeting will be held at [] on [], 2019 at [], local time. The Asterias Special Meeting will be held at [] on [], 2019 at [], local time.

Q: Who is entitled to vote at the special meetings?

A: Only shareholders of record of BioTime Common Shares at the close of business on [], 2019, are entitled to vote at the BioTime Special Meeting and any adjournment or postponement of the BioTime Special Meeting. Only stockholders of record of Asterias Common Stock at the close of business on [], 2019 are entitled to vote at the Asterias Special Meeting and any adjournment or postponement of the Asterias Special Meeting.

Q: How can I attend the special meetings?

A: All of the BioTime shareholders are invited to attend the BioTime Special Meeting and all of the Asterias stockholders are invited to attend the Asterias Special Meeting. You may be asked to present valid photo identification, such as a driver's license or passport, before being admitted to the applicable special meeting. If you hold your shares in "street name," you also may be asked to present proof of ownership to be admitted to the applicable special meeting. A brokerage statement or letter from your broker, bank, trust company or other nominee proving ownership of the shares on the record date for the applicable special meeting are examples of proof of ownership. **Please note, however, that if your shares are held in "street name" and you wish to vote at the special meeting, you must bring to the special meeting a "legal proxy" executed in your favor from the record holder (your broker, bank, trust company or other nominee) of the shares authorizing you to vote at the special meeting. Whether or not you plan to attend the special meetings, please vote as soon as possible.**

Q: What proposals will be considered at the special meetings?

A: At the BioTime Special Meeting, the BioTime shareholders will be asked to consider and vote on the following:

(1) a proposal to approve the issuance of BioTime Common Shares (the “**BioTime Share Issuance**”) to the stockholders of Asterias in the Merger (the “**BioTime Share Issuance Proposal**”); and

(2) a proposal to adjourn the BioTime Special Meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes to approve the BioTime Share Issuance Proposal (the “**BioTime Adjournment Proposal**”).

BioTime will transact no other business at the BioTime Special Meeting except such business as may properly be brought before the BioTime Special Meeting or any adjournment or postponement thereof.

At the Asterias Special Meeting, Asterias stockholders will be asked to consider and vote on the following:

(1) a proposal to adopt the Merger Agreement and approve the transactions contemplated by the Merger Agreement, including the Merger (the “**Asterias Merger Proposal**”); and

(2) a proposal to adjourn the Asterias Special Meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes to approve the Asterias Merger Proposal (the “**Asterias Adjournment Proposal**”).

Asterias will transact no other business at the Asterias Special Meeting except such business as may properly be brought before the Asterias Special Meeting or any adjournment or postponement thereof.

Q: How does the BioTime board of directors recommend that I vote?

A: On November 7, 2018, a special committee (the “**BioTime Special Committee**”) consisting of three independent and disinterested members of the BioTime Board unanimously determined that the Merger Agreement and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders and recommended to the BioTime Board that it approve and declare fair to, advisable and in the best interests of BioTime shareholders, the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance. After careful consideration, the BioTime Board (by unanimous vote of the disinterested members of the BioTime Board, with Neal C. Bradsher, Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) approved the Merger Agreement and the BioTime Share Issuance and determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders.

The BioTime Board recommends that BioTime shareholders vote “FOR” the BioTime Share Issuance Proposal and “FOR” the BioTime Adjournment Proposal.

Q: How does the Asterias board of directors recommend that I vote?

A: After careful consideration, the Special Committee (the “**Asterias Special Committee**”) of the Asterias board of directors (the “**Asterias Board**”), consisting of four independent and disinterested directors of Asterias, unanimously determined at a meeting of the Special Committee held on November 7, 2018, that the Merger Agreement and the Merger are fair to, advisable and in the best interests of the Asterias stockholders, and recommended to the Asterias Board that it approve and declare fair to, advisable and in the best interests of Asterias stockholders, the Merger Agreement and the Merger. At a duly convened meeting of the Asterias Board held on November 7, 2018, on the unanimous recommendation of the Asterias Special Committee, the Asterias Board (by unanimous vote of the disinterested members of the Asterias Board, with Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) approved the Merger Agreement and determined that the Merger Agreement and the transactions contemplated thereby, including the Merger, are fair to, advisable and in the best interests of Asterias and its stockholders.

The Asterias Board recommends that Asterias stockholders vote “FOR” the Asterias Merger Proposal and “FOR” the Asterias Adjournment Proposal.

Q: How do I vote?

A: If you are a shareholder of record of BioTime as of the close of business on the record date for the BioTime Special Meeting or a stockholder of record of Asterias as of the close of business on the record date for the Asterias Special Meeting, you may vote in person by attending your special meeting or, to ensure your shares are represented at the meeting, you may vote by:

accessing the Internet website specified on your proxy card;

calling the toll-free number specified on your proxy card; or

marking, signing, dating and returning the enclosed proxy card in the postage-paid envelope provided.

If you hold BioTime or Asterias shares in the name of a bank or broker, please follow the voting instructions provided by your bank or broker to ensure that your shares are represented at your special meeting.

Q: What constitutes a quorum?

A: *BioTime shareholders*. The presence, in person or by proxy, of a majority of BioTime Common Shares entitled to vote at the BioTime Special Meeting will constitute a quorum for the transaction of business at the BioTime Special Meeting.

BioTime Common Shares represented at the BioTime meeting and entitled to vote but not voted, including shares for which a stockholder directs an “abstention” from voting and broker non-votes (shares held by banks, brokerage firms or nominees that are present in person or by proxy at the BioTime Special Meeting but with respect to which the broker or other stockholder of record is not instructed by the beneficial owner of such shares how to vote on a particular proposal and the broker does not have discretionary voting power on such proposal), if any, will be counted as present for purposes of establishing a quorum.

Any BioTime Common Shares held in treasury will not be included in the calculation of the number of BioTime Common Shares represented at the meeting for purposes of determining whether a quorum is present.

Asterias stockholders. The presence, in person or by proxy, of a majority of all issued and outstanding shares of Asterias Common Stock entitled to vote at the Asterias Special Meeting will constitute a quorum for the transaction of business at the Asterias Special Meeting.

Shares of Asterias Common Stock represented at the Asterias Special Meeting but not voted, including shares for which a stockholder directs an “abstention” from voting and broker non-votes (shares held by banks, brokerage firms or nominees that are present in person or by proxy at the Asterias Special Meeting but with respect to which the broker or other stockholder of record is not instructed by the beneficial owner of such shares how to vote on a particular proposal and the broker does not have discretionary voting power on such proposal), if any, will be counted as present for purposes of establishing a quorum.

Q: What vote is required to approve each proposal?

A: *BioTime shareholders.* Approval of the BioTime Share Issuance Proposal requires the affirmative vote of the holders of a majority of the total votes of BioTime Common Shares cast in person or by proxy at the special meeting to approve the BioTime Share Issuance pursuant to NYSE American Rules. Approval of the BioTime Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal.

Asterias stockholders. Approval of the Asterias Merger Proposal requires the affirmative vote of the holders of a majority of the outstanding shares of Asterias Common Stock entitled to vote in person or by proxy at the special meeting. Approval of the Asterias Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal.

As of the close of business on the record date, approximately []% of the outstanding shares of Asterias Common Stock were held by BioTime. Under the Merger Agreement, BioTime is obligated to vote their shares at the Asterias Special Meeting.

Q: How many votes do I have?

A: *BioTime shareholders.* You are entitled to one vote for each BioTime Common Share that you owned as of the close of business on the BioTime record date. As of the close of business on the BioTime record date, there were [] BioTime Common Shares outstanding and entitled to vote at the BioTime Special Meeting.

Asterias stockholders. You are entitled to one vote for each share of Asterias Common Stock that you owned as of the close of business on the Asterias record date. As of the close of business on the Asterias record date, there were [] shares of Asterias Common Stock outstanding and entitled to vote at the Asterias Special Meeting.

Q: What will happen if I fail to vote or vote to abstain from voting?

A: *BioTime shareholders.* If you are a BioTime shareholder and fail to vote or fail to instruct your broker or nominee to vote, or vote to abstain from voting, it will have no effect on the BioTime Share Issuance Proposal, assuming a quorum is present. If you are a BioTime shareholder and fail to vote or fail to instruct your broker or nominee to vote, it will have no effect on the BioTime Adjournment Proposal, assuming a quorum is present; however, if you vote to abstain, it will have the same effect as a vote against the BioTime Adjournment Proposal.

Asterias stockholders. If you are an Asterias stockholder and fail to vote or fail to instruct your broker or nominee to vote, or vote to abstain from voting, it will have the same effect as a vote against the Asterias Merger Proposal, assuming a quorum is present. If you are an Asterias stockholder and fail to vote or fail to instruct your broker or nominee to vote, it will have no effect on the Asterias Adjournment Proposal, assuming a quorum is present; however, if you vote to abstain, it will have the same effect as a vote against the Asterias Adjournment Proposal.

Q: If my shares are held in “street name” by my broker, will my broker automatically vote my shares for me?

A: No. If you hold your shares in a stock brokerage account or if your shares are held by a bank or nominee (that is, in “street name”), your broker, bank, trust company or other nominee cannot vote your shares on “non-routine” matters without instructions from you.

You should instruct your broker, bank, trust company or other nominee as to how to vote your shares, following the directions from your broker, bank, trust company or other nominee provided to you. Please check the voting form used by your broker, bank, trust company or other nominee. If you do not provide your broker, bank, trust company or other nominee with instructions on how to vote your shares, your broker, bank, trust company or other nominee may not vote your shares, which will have no effect on the BioTime Share Issuance Proposal and the BioTime Adjournment Proposal, in each case, assuming a quorum is present.

Please note that you may not vote shares held in street name by returning a proxy card directly to BioTime or Asterias or by voting in person at your special meeting unless you provide a “legal proxy,” which you must obtain from your broker, bank, trust company or other nominee.

Q: What will happen if I return my proxy card without indicating how to vote?

A: If you return your proxy card without indicating how to vote on any particular proposal, the BioTime Common Shares or Asterias Common Stock represented by your proxy card will be voted in favor of that proposal.

Q: What does it mean if I receive multiple proxy cards?

A: Your shares may be registered in more than one account, such as brokerage accounts and 401(k) accounts. It is important that you complete, sign, date and return each proxy card or voting instruction form you receive or vote using the telephone or the Internet as described in the instructions included with your proxy card(s) or voting instruction form(s).

Q: Can I change my vote after having returned a proxy or voting instruction card?

A: Yes. You can change your vote at any time before your proxy is voted at the applicable special meeting in one of three ways:

you can send a written notice of revocation;

you can grant a new, valid proxy bearing a later date (including by telephone or through the Internet); or

if you are a holder of record, you can attend your special meeting and vote in person, which will automatically cancel any proxy previously given, or you may revoke your proxy in person, but your attendance alone will not revoke any proxy that you have previously given.

If you choose either of the first two methods, you must submit your notice of revocation or your new proxy to the Corporate Secretary of BioTime or the Corporate Secretary of Asterias, as applicable, no later than the beginning of the applicable special meeting. If your shares are held in street name by your bank or broker, you should contact your broker to change your vote or revoke your proxy.

Q: Should Asterias stockholders send in stock certificates or other evidence of ownership now?

A: No. At the effective time of the Merger and without any action on the part of any holder of Asterias Common Stock, all non-certificated shares of Asterias Common Stock represented by book-entry shall be deemed surrendered to the exchange agent, and BioTime shall cause the exchange agent to deliver to each holder of such shares the number of uncertificated whole BioTime Common Shares that the holder is entitled to receive pursuant to the Merger Agreement.

After the Merger is completed, if you are a holder of certificates representing shares of Asterias Common Stock, you will be sent a letter of transmittal with detailed written instructions for exchanging your shares of Asterias Common Stock for the merger consideration. If your shares of Asterias Common Stock are held in “street name” by your broker, bank or other nominee, you may receive instructions from your broker, bank or other nominee as to what action, if any, you need to take to effect the surrender of your “street name” shares in exchange for the merger consideration. **Do not send in your certificates now.**

Q: What happens if I transfer my BioTime Common Shares or Asterias Common Stock before the special meeting?

A: The record dates for the BioTime and Asterias Special Meetings are earlier than both the date of the special meetings and the date that the Merger is expected to be completed. If you transfer your BioTime or Asterias shares after the applicable record date but before the applicable special meeting, you will retain your right to vote at the applicable special meeting. However, if you are an Asterias stockholder, you will have transferred the right to receive the merger consideration in the Merger. In order to receive the merger consideration, you must hold your shares through the effective date of the Merger.

Q: What if I hold shares in both BioTime and Asterias?

A: If you are a stockholder of both BioTime and Asterias, you will receive two separate packages of proxy materials. A vote cast as a BioTime shareholder will not count as a vote cast as an Asterias stockholder, and a vote cast as an Asterias stockholder will not count as a vote cast as a BioTime shareholder. Therefore, please separately submit a proxy for each of your BioTime and Asterias shares.

Q: Who is the inspector of election?

A: The BioTime Board has appointed a representative of American Stock Transfer & Trust Company, LLC to act as the inspector of election at the BioTime Special Meeting. The Asterias Board has also appointed a Michael H. Mulroy to act as the inspector of election at the Asterias Special Meeting.

Q: Where can I find the voting results of the special meeting?

A: The preliminary voting results, if available, will be announced at the BioTime Special Meeting and the Asterias Special Meeting, respectively. In addition, within four business days following certification of the final voting results, each of BioTime and Asterias intends to file the final voting results of its special meeting with the SEC as a current report on Form 8-K.

Q: What will happen if all of the proposals to be considered at the special meeting are not approved?

A: Approval of the BioTime Share Issuance Proposal by the BioTime shareholders and approval of the Asterias Merger Proposal by the Asterias stockholders are each conditions to the completion of the Merger. As a result, if such approval is not obtained, the Merger will not be completed. Approval of the BioTime Adjournment Proposal or the Asterias Adjournment Proposal is not a condition to the completion of the Merger.

Q: Are BioTime or Asterias stockholders entitled to appraisal rights?

A: No. Under the General Corporation Law of the State of Delaware (the “**DGCL**”), holders of Asterias Common Stock are not entitled to appraisal rights in connection with the merger because both BioTime Common Shares and Asterias Common Stock are listed on NYSE American. Under the California Corporations Code (the “**CCC**”), BioTime shareholders are not entitled to appraisal rights in connection with the Merger.

Q: What are the material U.S. federal income tax consequences of the Merger to U.S. holders of Asterias Common Stock?

A: Asterias and BioTime intend for the Merger to qualify as a “reorganization” within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended (the “**Code**”). U.S. holders (as defined in the section entitled “*Material U.S. Federal Income Tax Consequences*”) of Asterias Common Stock should not recognize any gain or loss for U.S. federal income tax purposes upon the exchange of shares of Asterias Common Stock for BioTime Common Shares in the Merger, except with respect to cash received in lieu of fractional shares.

Please carefully review the information set forth in the section entitled “*Material U.S. Federal Income Tax Consequences*” for a more complete description of the material U.S. federal income tax consequences of the Merger. **The tax consequences to you of the Merger will depend on your particular facts and circumstances. Please consult your own tax advisors as to the specific tax consequences to you of the Merger.**

Q: What are the conditions to completion of the Merger?

A: In addition to the approval of the BioTime Share Issuance Proposal by the BioTime shareholders and the approval of the Asterias Merger Proposal by the Asterias stockholders as described above, completion of the Merger is subject to the satisfaction of a number of conditions. For additional information on the conditions to completion of the Merger, see the section entitled “*The Merger Agreement—Conditions to the Completion of the Merger.*”

Q: What happens if the Merger is not completed?

A: If the Merger is not completed, Asterias stockholders will not receive any consideration for their shares. Instead, Asterias and BioTime will remain independent public companies, and shares of Asterias Common Stock and BioTime Common Shares will continue to be independently listed and traded on NYSE American. Under certain circumstances, Asterias or BioTime may be required to pay the other party a termination fee or expense reimbursement in accordance with the Merger Agreement.

Q: Will I be paid any dividends prior to the Merger?

A: BioTime publicly announced on October 25, 2018 the distribution of the majority of BioTime's ownership in AgeX Therapeutics, Inc. ("**AgeX**"). The distribution of the AgeX shares occurred on November 28, 2018 (with record date of November 16, 2018), prior to the closing of the Merger, and therefore, Asterias stockholders will not be entitled to a distribution of AgeX shares. BioTime has not historically paid cash dividends to its stockholders and does not anticipate doing so in the foreseeable future.

Asterias has not historically paid cash dividends to its stockholders and does not anticipate doing so in the foreseeable future.

The Merger Agreement prohibits BioTime and Asterias from declaring, setting aside or paying any dividends on its capital stock without BioTime's consent before the earlier of the closing of the Merger and the termination of the Merger Agreement in accordance with its terms.

Q: When do you expect the Merger to be completed?

A: BioTime and Asterias hope to complete the Merger as soon as reasonably practicable and are working to complete the Merger in the first quarter of 2019. However, the Merger it is possible that factors outside the control of both companies could result in the Merger being completed at a later time, or not at all. We cannot presently determine the length of time between the respective BioTime Special Meeting and the Asterias Special Meeting and the completion of the Merger.

Q: What do I need to do now?

A: Carefully read and consider the information contained in and incorporated by reference into this joint proxy statement/prospectus, including its annexes.

If you are a holder of record, for your shares to be represented at your special meeting:

you can attend the applicable special meeting in person;

you can vote through the Internet or by telephone by following the instructions included in your proxy card; or

you can indicate on the enclosed proxy card how you would like to vote and return the proxy card in the accompanying pre-addressed postage-paid envelope.

If you hold your shares in street name, in order for your shares to be represented at your special meeting, you should instruct your broker, bank, trust company or other nominee as to how to vote your shares, following the directions from your broker, bank, trust company or other nominee provided to you.

Q: Do I need to do anything with my shares of Asterias Common Stock now?

A: If you are an Asterias stockholder, after the Merger is completed, your shares of Asterias Common Stock will be automatically converted into BioTime Common Shares. You will receive instructions at that time regarding exchanging your shares for BioTime Common Shares. You do not need to take any action at this time. Please do not send any Asterias stock certificate with your proxy card.

If you are a BioTime shareholder, you are not required to take any action with respect to your BioTime stock certificates. You will continue to hold your BioTime Common Shares after the effective time of the Merger.

Q: Are there any risks in the Merger or BioTime Share Issuance that I should consider?

A: Yes. There are risks associated with all business combinations, including the Merger and the related BioTime Share Issuance. These risks are discussed in more detail in the section entitled “*Risk Factors*.”

Q: What is householding and how does it affect me?

A: The SEC permits companies to send a single set of proxy materials to any household at which two or more stockholders reside, unless contrary instructions have been received, but only if the applicable company provides advance notice and follows certain procedures. In such cases, each stockholder continues to receive a separate notice of the meeting and proxy card. Certain brokerage firms may have instituted householding for beneficial owners of BioTime Common Shares or Asterias Common Stock held through brokerage firms. If your family has multiple accounts holding BioTime Common Shares or Asterias Common Stock, you may have already received householding notification from your broker. Please contact your broker directly if you have any questions or require additional copies of this proxy statement. The broker will arrange for delivery of a separate copy of this proxy statement promptly upon your written or oral request. You may decide at any time to revoke your decision to household, and thereby receive multiple copies.

Q: Who is paying for this proxy solicitation?

A: BioTime and Asterias are conducting this proxy solicitation and will bear the cost of soliciting proxies, including the preparation, assembly, printing and mailing of this joint proxy statement / prospectus, the proxy card and any additional information furnished to stockholders. BioTime is not engaging a proxy solicitor and will distribute proxy solicitation materials to brokers, banks and other nominees and will solicit proxies from BioTime shareholders directly. Asterias has retained Advantage Proxy to aid in Asterias’ proxy solicitation process. Asterias estimates that its proxy solicitor fees will be approximately \$10,000. BioTime and Asterias may also reimburse brokerage houses and other custodians, nominees and fiduciaries for their costs of forwarding proxy and solicitation materials to beneficial owners.

Q: Who can help answer my questions?

A: BioTime shareholders or Asterias stockholders who have questions about the Merger, the BioTime Share Issuance or the other matters to be voted on at the special meetings or desire additional copies of this joint proxy statement/prospectus or additional proxy cards should contact:

if you are a BioTime shareholder: if you are an Asterias stockholder:

BioTime, Inc.

Advantage Proxy, Inc.

1010 Atlantic Avenue, Suite 102

P.O. Box 13581

Alameda, California 94501

Des Moines, WA 98198

Attention: Investor Relations

Toll Free Telephone: 877-870-8565

Telephone: (510) 871-4188

Main Telephone: 206-870-8565

SUMMARY

This summary highlights selected information included in this joint proxy statement/prospectus. You should carefully read this entire joint proxy statement/prospectus and its Annexes and the other documents referred to in this joint proxy statement/prospectus, because the information in this section may not provide all of the information that might be important to you in determining how to vote. Additional important information about BioTime and Asterias is also contained in the Annexes to, and the documents incorporated by reference into, this joint proxy statement/prospectus. For a description of, and instructions as to how to obtain, this information, see the section entitled “Where You Can Find More Information.” Each item in this summary includes a page reference directing you to a more complete description of that item.

Information About the Companies (Page 44)

BioTime, Inc.

BioTime, Inc.

1010 Atlantic Avenue, Suite 102

Alameda, CA 94501

Phone: (510) 521-3390

BioTime, Inc., a California corporation, is a clinical-stage biotechnology company targeting degenerative diseases. BioTime’s programs are based on two core proprietary technology platforms: cell replacement and cell/drug delivery. With BioTime’s cell replacement platform, BioTime is creating new cells and tissues with its pluripotent and progenitor cell technologies. These cells and tissues are developed to replace those that are either rendered dysfunctional or lost due to degenerative diseases. BioTime’s cell/drug delivery programs are based upon BioTime’s proprietary *HyStem*[®] cell and drug delivery matrix technology. *HyStem*[®] was designed to provide for the transfer, retention, engraftment and metabolic support of cellular replacement therapy.

BioTime’s common shares are listed on NYSE American under the symbol “BTX.”

Additional information about BioTime and its subsidiaries is included in the documents incorporated by reference in this joint proxy statement/prospectus. See the section entitled “*Where You Can Find More Information.*”

Asterias Biotherapeutics, Inc.

Asterias Biotherapeutics, Inc.

6300 Dumbarton Circle
Fremont, California 94555
Phone: (510) 456-3800

Asterias is a clinical-stage biotechnology company dedicated to developing pluripotent stem cell-derived therapies to treat neurological conditions associated with demyelination and cellular immunotherapies to treat cancer. Asterias has industry-leading technology in two cell types, each with broad potential applicability: (1) oligodendrocyte progenitor cells, which become oligodendrocytes that have the potential to remyelinate axons within the central nervous system and perform other restorative functions, and (2) antigen-presenting dendritic cells, which train T-cells in the immune system to attack and destroy solid or liquid tumor cells across multiple types of cancer. Asterias currently has three clinical-stage therapeutic programs, focusing on spinal cord injury, non-small cell lung cancer and acute myeloid leukemia.

Asterias Common Stock is listed on the NYSE American under the symbol “AST.”

Additional information about Asterias is included in documents incorporated by reference in this joint proxy statement/prospectus. See the section entitled “*Where You Can Find More Information.*”

Merger Sub

Patrick Merger Sub, Inc.

1010 Atlantic Avenue, Suite 102

Alameda, CA 94501

Phone: (510) 521-3390

Patrick Merger Sub, Inc., a wholly owned subsidiary of BioTime, is a Delaware corporation that was formed on November 5, 2018 for the purpose of effecting the Merger. Upon completion of the Merger, Merger Sub will be merged with and into Asterias, with Asterias surviving as a wholly owned subsidiary of BioTime. Merger Sub has not conducted any activities other than those incidental to its formation and the matters contemplated by the Merger Agreement in connection with the Merger.

The Merger and the Merger Agreement (Pages 45 and 88, respectively)

The terms and conditions of the Merger are set forth in the Merger Agreement, a copy of which is attached as **Annex A** to this joint proxy statement/prospectus. BioTime and Asterias encourage you to read the entire Merger Agreement carefully because it is the principal legal document governing the Merger and the BioTime Share Issuance.

Structure of the Merger (Page 45)

At the effective time of the Merger, Merger Sub will merge with and into Asterias, the separate corporate existence of Merger Sub will cease, and Asterias will continue as the surviving corporation in the Merger and as a wholly owned subsidiary of BioTime.

Merger Consideration (Page 45 and 89)

If the Merger is completed, Asterias stockholders will receive 0.71 BioTime Common Shares for each share of Asterias Common Stock they hold, with cash paid in lieu of fractional shares. The Exchange Ratio is fixed and will

not be adjusted for changes in the market value of the common stock of Asterias or BioTime. Because of this, the implied dollar value of the consideration to Asterias stockholders may fluctuate between now and the completion of the Merger. Based on the closing price of BioTime Common Shares on the NYSE American on November 7, 2018, the last full trading day before the public announcement of BioTime's proposal to acquire Asterias, the Exchange Ratio represents approximately \$1.49 in value for each share of Asterias Common Stock. Based on the closing price of BioTime Common Shares on NYSE American on [], 2019, the latest practicable date before the date of the enclosed joint proxy statement/prospectus, the Exchange Ratio represents approximately \$[] in value of each share of Asterias Common Stock.

Asterias stockholders will not receive any fractional BioTime Common Shares in the Merger. Instead, BioTime will pay cash in lieu of any fractional BioTime Common Shares that an Asterias stockholder would otherwise have been entitled to receive.

As of December 17, 2018, BioTime owned 38.9% of the outstanding shares of Asterias Common Stock. Pursuant to the Merger Agreement, all such shares of Asterias Common Stock will be cancelled and will cease to exist for no consideration.

Treatment of Asterias Equity Awards (Page 84 and 89)

Treatment of Asterias Stock Options

At the effective time of the Merger, each outstanding option to purchase shares of Asterias Common Stock pursuant to Asterias' Amended and Restated 2013 Equity Incentive Plan, including 3,195,414 options held by officers and directors of Asterias, will be cancelled and extinguished for no consideration and shall cease to exist after the Effective Time.

Treatment of Asterias Restricted Stock Unit Awards

Each outstanding Asterias restricted stock unit award, including awards held by officers and directors of Asterias with respect to 129,252 restricted stock units, if the Merger is consummated on March 30, 2019, shall vest in full immediately prior to the effective time of the Merger and shall be cancelled and converted into the right to receive, as soon as reasonably practicable after the effective time of the merger, 0.71 BioTime Common Shares in respect of each share of Asterias Common Stock underlying the Asterias restricted stock unit award.

Treatment of Asterias Warrants

Pursuant to the terms of the Merger Agreement, each outstanding Asterias Warrant will be treated in accordance with the terms of the applicable Warrant Agreement.

Treatment of Asterias 2013 Equity Incentive Plan (Page 90)

At the effective time of the merger, BioTime will assume sponsorship of the Asterias 2013 Equity Incentive Plan (the “**Asterias Equity Plan**”), with references to Asterias in the Asterias Equity Plan and award agreements for the Asterias Equity Awards to be deemed references to BioTime and references to shares of Asterias Common Stock therein shall be deemed references to BioTime Common Shares with appropriate equitable adjustments to reflect the Merger and the other transactions contemplated by the Merger Agreement.

BioTime’s Reasons for the Merger and BioTime Share Issuance; Recommendation of the BioTime Board of Directors (Page 54)

On November 7, 2018, the BioTime Special Committee unanimously determined that the Merger Agreement and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders and recommended to the BioTime Board that it approve and declare fair to, advisable and in the best interests of BioTime shareholders, the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance. Thereafter, at a duly convened meeting of the BioTime Board to consider the unanimous recommendation of the BioTime Special Committee, the members of the BioTime Board approved (by unanimous vote of the disinterested members of the BioTime Board, with Neal C. Bradsher, Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) the Merger Agreement and the BioTime Share Issuance and determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders. **The BioTime Board**

accordingly recommends that the BioTime shareholders vote “FOR” each of the BioTime Share Issuance Proposal and the BioTime Adjournment Proposal.

Opinion of BioTime’s Financial Advisor (Page 57)

BioTime retained Maxim Group, LLC (“**Maxim**”) as its financial advisor in connection with the Merger. As discussed in the following paragraph, on November 7, 2018, Maxim delivered to the BioTime Board its oral opinion, confirmed by its delivery of a written opinion dated November 7, 2018, that, as of the date thereof and subject to the assumptions, limitations, qualifications and conditions set forth in its opinion, the Exchange Ratio and the merger consideration being paid to the Asterias stockholders was fair, from a financial point of view, to BioTime and its shareholders.

The full text of Maxim’s written opinion, dated November 7, 2018, which sets forth, among other things, the assumptions made, procedures followed, matters considered and qualifications and limitations on the scope of review undertaken by Maxim in delivering its opinion, is attached as **Annex B** to this joint proxy statement/prospectus and is incorporated herein by reference in its entirety.

You are urged to read Maxim’s opinion carefully and in its entirety. Maxim’s opinion was provided for the information and benefit of the BioTime Board and was delivered to the BioTime Board in connection with its evaluation of whether the merger consideration to be paid by BioTime pursuant to the Merger Agreement is fair, from a financial point of view, to BioTime, and did not address any other aspect or implication of the Merger. Maxim’s opinion does not constitute a recommendation to the BioTime Board or to any other persons in respect of the Merger Agreement and the transactions contemplated thereby, including the Merger, including as to how any holder of BioTime Common Shares should vote or act in respect of the BioTime Share Issuance Proposal.

**Asterias' Reasons for the Merger; Recommendation of the Asterias Special Committee and Board of Directors
(Page 64)**

On November 7, 2018, the Asterias Special Committee, consisting of four independent and disinterested directors, and acting with the advice of its own legal and financial advisors, unanimously determined that the terms and conditions of the Merger Agreement and the Merger are fair to, advisable and in the best interests of Asterias stockholders, and recommended to the Asterias Board that it approve and declare fair to, advisable and in the best interests of Asterias stockholders, the Merger Agreement and the Merger. On November 7, 2018, at a duly convened meeting of the Asterias Board, based on the unanimous recommendation of the Asterias Special Committee, the Asterias Board (by unanimous vote of the disinterested members of the Asterias Board, with Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) (1) determined that the Merger Agreement and the Merger are fair to, advisable and in the best interests of Asterias and its stockholders, (2) approved the Merger Agreement and the transactions contemplated thereby and (3) resolved to recommend that Asterias stockholders vote for the approval and adoption of the Merger Agreement and the transactions contemplated thereby, including the Merger. **The Asterias Board accordingly recommends that Asterias stockholders vote “FOR” the Asterias Merger Proposal and “FOR” the Asterias Adjournment Proposal.**

Opinion of Asterias' Financial Advisor (Page 70)

At the November 7, 2018 meeting of the Asterias Special Committee, representatives of Raymond James & Associates, Inc. (“**Raymond James**”) rendered Raymond James's oral opinion, which was also shared with the Asterias Board at the November 7, 2018 meeting of the Asterias Board and subsequently confirmed by delivery of a written opinion to the Special Committee, dated November 7, 2018, as to the fairness, as of such date, from a financial point of view, of the Exchange Ratio to the holders of outstanding shares of Asterias Common Stock (other than shares of Asterias Common Stock held by BioTime, Asterias or any of their respective wholly-owned subsidiaries) to be received by such holders in the Merger pursuant to the Merger Agreement.

The full text of the written opinion of Raymond James, dated November 7, 2018, which sets forth, among other things, the various qualifications, procedures, assumptions and limitations on the scope of the review undertaken, is attached as **Annex C** to this joint proxy statement/prospectus. Raymond James provided its opinion for the information and assistance of the Asterias Special Committee (solely in its members' capacities as such) in connection with, and for purposes of, its consideration of the Merger, and its opinion only addresses whether the Exchange Ratio to be received by the holders of outstanding shares of Asterias Common Stock (other than shares of Asterias Common Stock held by BioTime, Asterias or any of their respective wholly-owned subsidiaries) in the Merger pursuant to the Merger Agreement was fair, from a financial point of view, to such holders. The opinion of Raymond James did not address any other term or aspect of the Merger Agreement or the Merger contemplated thereby. The Raymond James opinion does not constitute a recommendation to the Asterias Board or any holder of Asterias Common Stock as to how the Asterias Board, such stockholder or any other person should vote or otherwise act with respect to the Merger or any other matter.

The BioTime Special Meeting; Required Vote (Page 38)

The BioTime Special Meeting will be held at [], on [], 2019, at [], local time, unless adjourned or postponed to a later date or time. At the BioTime Special Meeting, BioTime shareholders will be asked:

(1) to consider and vote on the BioTime Share Issuance Proposal; and

(2) to consider and vote on the BioTime Adjournment Proposal.

You may vote at the BioTime Special Meeting if you owned BioTime Common Shares at the close of business on [], 2019, the record date for the BioTime Special Meeting. As of the close of business on the record date, there were [] BioTime Common Shares outstanding and entitled to vote. You may cast one vote for each BioTime Common Share that you owned as of the close of business on the BioTime record date.

As of the close of business on the record date, approximately []% of the outstanding BioTime Common Shares were held by BioTime's directors and executive officers and their affiliates. We currently expect that BioTime's directors and executive officers will vote their shares in favor of the above-listed proposals, though they are under no obligation to do so.

Completion of the Merger is conditioned on approval of the BioTime Share Issuance Proposal. Approval of the BioTime Share Issuance Proposal requires the affirmative vote of the holders of a majority of the total votes of BioTime Common Shares cast in person or by proxy at the special meeting to approve the share issuance pursuant to NYSE American Rules.

Approval of the BioTime Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal pursuant to BioTime's Amended and Restated Bylaws, as amended to date.

The Asterias Special Meeting; Required Vote (Page 41)

The special meeting of Asterias stockholders will be held at [], on [], 2019 at [], local time, unless adjourned or postponed to a later date or time. At the Asterias Special Meeting, stockholders will be asked:

(1) to consider and vote on the Asterias Merger Proposal; and

(2) to consider and vote on the Asterias Adjournment Proposal.

You may vote at the Asterias Special Meeting if you owned shares of Asterias Common Stock at the close of business on [], 2019, the record date. As of the close of business on the record date, there were [] shares of Asterias Common Stock outstanding and entitled to vote. You may cast one vote for each share of Asterias Common Stock that you owned as of the close of business on the Asterias record date.

Approval of the Asterias Merger Proposal requires the affirmative vote of holders of a majority of the outstanding shares of Asterias Common Stock entitled to vote in person or by proxy at the special meeting pursuant to Delaware law.

Approval of the Asterias Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote.

As of the close of business on the record date, approximately []% of the outstanding shares of Asterias Common Stock were held by BioTime. Under the Merger Agreement, BioTime is obligated to vote their shares at the Asterias Special Meeting.

Interests of BioTime's Directors and Executive Officers in the Merger (Page 82)

In considering the recommendation of the BioTime Board with respect to the Merger Agreement, you should be aware that certain of BioTime's directors and executive officers have interests in the Merger that are different from, or in addition to, the interests of BioTime shareholders generally. Interests of directors and officers that may be different from or in addition to the interests of BioTime shareholders include, among others:

certain of BioTime's directors and executive officers serve (or in the past have served) on the Asterias Board or as executive officers of Asterias; and

certain of BioTime's directors and executive officers and their respective affiliates are securityholders of Asterias.

As of [], 2019, the record date for the Asterias Special Meeting, BioTime's directors and executive officers beneficially owned [] shares of Asterias Common Stock as a group.

The BioTime Board was aware of these interests and considered them, among other matters, in evaluating and negotiating the Merger Agreement and in reaching a decision to approve the Merger Agreement and the transactions contemplated therein, and in making its recommendation that the BioTime shareholders vote "FOR" the BioTime Share Issuance Proposal and "FOR" the BioTime Adjournment Proposal.

Merger-Related Compensation for BioTime's Named Executive Officers

The rules promulgated by the SEC under Section 14A of the Exchange Act generally require companies to seek a non-binding advisory vote from stockholders with respect to certain compensation that will or may become payable to their named executive officers in connection with a merger. BioTime is not seeking this non-binding, advisory vote from its stockholders because none of BioTime's named executive officers are entitled to any such merger-related compensation that would otherwise require such a vote.

Interests of Asterias' Directors and Executive Officers in the Merger (Page 83)

In considering the recommendation of the Asterias Board with respect to the Merger Agreement, you should be aware that certain of Asterias' directors and executive officers may have interests in the Merger that are different from, or in addition to, the interests of Asterias' stockholders. Interests of directors and officers that may be different from or in addition to the interests of Asterias stockholders include, among others:

Certain of Asterias' directors and executive officers serve on the BioTime Board;

Certain of Asterias' directors and executive officers and their respective affiliates are security holders of BioTime;

Asterias' directors and executive officers are entitled to continued indemnification and insurance coverage under the Merger Agreement;

Aditya Mohanty, a member of the Asterias Board, was a Co-Chief Executive Officer and a member of the BioTime Board until September 17, 2018; and

The Merger Agreement provides that each Asterias restricted stock unit award, whether vested or unvested, that is outstanding immediately prior to the effective time of the Merger will vest in full immediately prior to the effective time of the Merger and will be cancelled and converted into the right to receive 0.71 BioTime Common Shares.

Certain of Asterias' executive officers own Asterias restricted stock unit awards and will be entitled to receive the Exchange Ratio in respect of such Asterias restricted stock unit award.

The Asterias Board and the Asterias Special Committee were aware of these interests and considered them, among other matters, in evaluating and negotiating the Merger Agreement and in reaching a decision to approve the Merger Agreement and the transactions contemplated therein, and in making its recommendation that the Asterias stockholders vote "FOR" the Asterias Merger Proposal and "FOR" the Asterias Adjournment Proposal.

Merger-Related Compensation for Asterias' Named Executive Officers (Page 85)

Asterias is not seeking a non-binding advisory vote from its stockholders with respect to certain compensation that will or may become payable to Asterias' named executive officers in connection with a Merger under the rules promulgated by the SEC under Section 14A of the Exchange Act ("say-on-golden parachute") because pursuant to the Jumpstart Our Business Startups ("JOBS") Act, emerging growth companies, such as Asterias, are exempt from the requirement to hold a "say-on-golden parachute" vote.

Regulatory Approvals Required for the Merger (Page 86)

BioTime has determined that the acquisition of Asterias is exempt from the premerger notification requirements of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended. As such, the Merger is not subject to any filings with or authorizations, approvals or consents from federal and state antitrust authorities are required.

Neither BioTime nor Asterias is aware of any other material governmental approvals or actions that are required for completion of the Merger. It is presently contemplated that if any such additional governmental approvals or actions are required, those approvals or actions will be sought. There can be no assurance, however, that any additional approvals or actions will be obtained.

Asterias Go-Shop (Page 97)

At any time prior to December 3, 2018 (the **“Go-Shop Period”**), Asterias was permitted to initiate, solicit and encourage any inquiry or the making of any proposal or offer that constitutes an Acquisition Proposal (as defined below), including by making available information (including non-public information and data) and other access to the person making such Acquisition Proposal pursuant to a customary confidentiality agreement and participate in discussions with respect to any Acquisition Proposals and cooperate with any such discussions or any attempt to make any Acquisition Proposals.

Following the end of the Go-Shop Period, Asterias was required to cease all discussions with third parties with respect to Acquisition Proposals (except for Excluded Parties (as defined below) and third parties who submit unsolicited Acquisition Proposals to Asterias subject to compliance with certain conditions) and was prohibited from further initiating, soliciting or encouraging any inquiry or proposal or offer that constituted an Acquisition Proposal.

Changes in Board Recommendations (Page 100)

Subject to limited conditions, the Asterias Board or the BioTime Board may withdraw or modify its recommendation in the case of Asterias in support of the adoption of the Merger Agreement and in the case of BioTime in support of the BioTime Share Issuance. In the event that the board of directors of either company withdraws or modifies its recommendation in a manner adverse to the other company, the company whose board of directors withdrew or modified its recommendation may be required to pay a termination fee of \$2 million to the other company, or to reimburse the other party's expenses in an amount up to \$1.5 million.

Voting of Shares of Asterias Common Stock Owned by BioTime (Page 99)

Pursuant to the Merger Agreement, BioTime has agreed to vote all of the shares of Asterias Common Stock and Asterias Preferred Stock owned beneficially or of record by BioTime or any of its subsidiaries at the Asterias Special meeting. In the event that a special meeting of Asterias stockholders is called for the purposes of obtaining the approval of Asterias stockholders in respect of a Superior Proposal with an Excluded Party that was obtained in accordance with the go-shop provisions of the Merger Agreement, BioTime must vote or cause to be voted all of the shares of Asterias Common Stock and Asterias Preferred Stock owned beneficially or of record by BioTime or any of its subsidiaries in proportion to all other votes cast by other Asterias stockholders.

Conditions to the Completion of the Merger (Page 101)

The respective obligations of BioTime and Asterias to consummate the Merger are subject to the satisfaction of certain conditions.

Termination of the Merger Agreement (Page 103)

Either BioTime or Asterias can terminate the merger agreement under certain circumstances, which would prevent the merger from being consummated.

Expenses and Termination Fees (Page 104)

Generally, all fees and expenses incurred in connection with the Merger and the transactions contemplated by the Merger Agreement will be paid by the party incurring those expenses. However, the Merger Agreement provides that, upon termination of the Merger Agreement under certain circumstances, BioTime or Asterias may be obligated to pay to the other party a termination fee of \$2 million. The Merger Agreement also provides that either BioTime or Asterias may be obligated to reimburse the other party's expenses in an amount up to \$1.5 million (which will be credited against the termination fee).

No Appraisal Rights (Page 169)

Under Delaware law, holders of Asterias Common Stock are not entitled to appraisal rights in connection with the Merger.

Accounting Treatment of the Merger (Page 87)

BioTime prepares its consolidated financial statements in accordance with U.S. Generally Accepted Accounting Principles ("**U.S. GAAP**"). The Merger will be accounted for in accordance with Accounting Standards Codification Topic 805, *Business Combinations*. The purchase price will be allocated to the fair values of assets acquired, including acquired in-process research and development ("**IPR&D**"), and liabilities assumed. Any excess purchase price after this allocation will be assigned to goodwill. Under the acquisition method of accounting, goodwill and acquired IPR&D is not amortized but is tested for impairment at least annually, or more frequently if circumstances indicate potential impairment. The operating results of Asterias will be consolidated and be part of the Combined Company beginning on the date of the Merger.

Material U.S. Federal Income Tax Consequences of the Merger (Page 110)

Cooley LLP, outside counsel to BioTime, and Dentons US LLP, outside counsel to Asterias, are expected to each issue a tax opinion to the effect that the Merger will constitute a reorganization under Section 368(a) of the Code. In a reorganization, an Asterias stockholder generally should not recognize any gain or loss for U.S. federal income tax purposes upon the exchange of its shares of Asterias Common Stock for BioTime Common Shares. However, any cash received for any fractional share should result in the recognition of gain or loss as if such stockholder sold its fractional share. An Asterias stockholder's tax basis in the BioTime Common Shares that it receives in the Merger will equal its current tax basis in its Asterias Common Stock (reduced by the basis allocable to any fractional share interest

for which it receives cash).

Please carefully review the information set forth in the section entitled “*Material U.S. Federal Income Tax Consequences*” for a more complete description of the material U.S. federal income tax consequences of the Merger. The tax consequences to you of the Merger will depend on your particular facts and circumstances. Please consult your own tax advisors as to the specific tax consequences to you of the Merger.

Comparison of the Rights of Holders of BioTime Common Shares and Holders of Asterias Common Stock (Page 153)

Asterias stockholders receiving the merger consideration will have different rights once they become stockholders of BioTime due to differences between the governing corporate documents of BioTime and Asterias.

SELECTED HISTORICAL CONSOLIDATED FINANCIAL DATA OF BIOTIME

The following table sets forth selected historical consolidated financial data for BioTime. The historical consolidated financial information for each of the years in the three-year period ended December 31, 2017 is derived from the audited consolidated financial statements of BioTime as of and for each of the years in the three-year period ended December 31, 2017. The historical consolidated financial information for BioTime as of September 30, 2018 and for the nine months ended September 30, 2018 and September 30, 2017 has been derived from BioTime's unaudited interim condensed consolidated financial statements and related notes contained in its Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2018, which is incorporated herein by reference, and in the opinion of BioTime's management, include all normal and recurring adjustments that are considered necessary for the fair statement of the results for the interim periods. You should not assume the results of operations for any past periods indicate results for any future period, including with respect to the future performance of BioTime following the date of this joint proxy statement/prospectus or following the completion of the Merger. You should read this information in conjunction with BioTime's consolidated financial statements and related notes thereto included in BioTime's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which is incorporated by reference into this joint proxy statement/prospectus. See the section entitled "Where You Can Find More Information." For financial information giving effect to the Merger and the transactions contemplated by the Merger Agreement, see the section entitled "Unaudited Pro Forma Condensed Combined Financial Information."

	As of and for the Nine Months Ended September 30, 2018 ⁽¹⁾ 2017		As of and for the Year Ended December 31, 2017 ⁽¹⁾ 2016 ⁽¹⁾ 2015 ⁽¹⁾		
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Total revenue	\$4,230	\$2,459	\$3,458	\$5,923	\$7,036
Gross profit	3,980	2,345	3,290	5,565	5,929
Loss from operations	(31,580)	(29,339)	(38,902)	(58,967)	(65,809)
Net income (loss) attributable to BioTime, Inc.	(1,038)	51,958	(19,976)	33,572	(46,991)
Net income (loss) per common share, basic	\$(0.01)	\$0.47	\$(0.17)	0.35	\$(0.59)
Net income (loss) per common share, diluted	\$(0.01)	\$0.47	\$(0.17)	0.34	\$(0.59)
Weighted average shares used in computing net income or loss per common share, basic	126,872	110,989	114,476	97,316	79,711
Weighted average shares used in computing net income or loss per common share, diluted	126,872	111,124	114,476	99,553	79,711
Consolidated Balance Sheet Data (at period end):					
Working capital	\$32,403	\$17,213	\$35,744	\$16,799	\$34,775
Total assets	176,077	221,867	173,241	142,572	94,660
Total long-term obligations	2,016	6,868	2,099	3,214	5,751

(1) Asterias' financial statements and results of operations were included in BioTime's consolidated financial statements and results of operations for all periods through May 12, 2016. Beginning on May 13, 2016, BioTime deconsolidated Asterias' financial statements and results of operations. Since May 13, 2016, BioTime has elected to account for its Asterias shares at fair value using the equity method of accounting because since that date, BioTime has not had control of Asterias, as defined by U.S. GAAP, but BioTime continues to exercise significant influence over Asterias. Under the fair value method, the value of the shares of common stock BioTime holds in Asterias is carried on its consolidated balance sheet at fair value and is marked to market at each reporting period using the closing price of Asterias Common Stock on the NYSE American multiplied by the number of shares of Asterias held by BioTime, with changes in the fair value of the Asterias shares included in other income and expenses, net, in the consolidated statements of operations. See the section entitled "*Unaudited Pro forma Condensed Combined Financial Information.*"

SELECTED HISTORICAL FINANCIAL DATA OF ASTERIAS

The following table sets forth selected historical financial data for Asterias. The historical financial information for each of the years in the three-year period ended December 31, 2017 is derived from the audited financial statements of Asterias as of and for each of the years in the three-year period ended December 31, 2017. The historical financial information for Asterias as of September 30, 2018 and for the nine months ended September 30, 2018 and September 30, 2017 has been derived from Asterias' unaudited interim condensed financial statements and related notes contained in its Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2018, which is incorporated herein by reference, and in the opinion of Asterias' management, include all normal and recurring adjustments that are considered necessary for the fair statement of the results for the interim periods. You should not assume the results of operations for any past periods indicate results for any future period, including with respect to the future performance of Asterias following the date of this joint proxy statement/prospectus or of BioTime. following the completion of the Merger. You should read this information in conjunction with Asterias' audited consolidated financial statements and related notes thereto included in this joint proxy statement/prospectus. For financial information giving effect to the Merger and the transactions contemplated by the Merger Agreement, see the section entitled "*Unaudited Pro Forma Condensed Combined Financial Information.*"

	As of and for the Nine Months Ended September 30,		As of and for the Year Ended December 31,		
	2018	2017	2017	2016	2015
Statements of Operations Data:					
Total revenue	\$703	\$4,014	\$4,042	\$6,954	\$3,582
Gross profit	526	3,863	3,877	6,826	3,314
Net loss	(13,748)	(21,824)	(28,372)	(35,489)	(15,003)
Net loss per share attributable to common stockholders:					
Basic and diluted	\$(0.25)	\$(0.44)	\$(0.56)	\$(0.83)	\$(0.42)
Balance Sheet Data (at period end):					
Total current assets	\$15,762	\$21,929	\$22,716	\$36,990	\$29,789
Total assets	29,814	43,320	43,092	61,010	57,234
Total current liabilities ⁽¹⁾	2,426	2,376	3,521	6,535	4,980
Total liabilities ⁽¹⁾	5,309	11,588	9,549	18,982	12,135
Total stockholders' equity	24,505	31,732	33,543	42,028	45,099

(1) In November 2015, the Financial Accounting Standards Board ("FASB") issued ASU No. 2015-17, Balance Sheet Classification of Deferred Taxes, to eliminate the requirement to classify deferred income tax assets and liabilities

between current and noncurrent. The ASU simply requires that all deferred income tax assets and liabilities be classified as noncurrent. As of December 31, 2016, Asterias adopted the ASU prospectively but did not reclassify previous balances of deferred income tax assets and liabilities, as permitted by the ASU.

SELECTED UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

The following table presents selected unaudited pro forma combined financial information about BioTime's consolidated balance sheet and statements of operations, after giving effect to the Merger with Asterias. The information under "Pro Forma Statements of Operations Data" in the table below assumes the Merger had been consummated on January 1, 2017, the beginning of the earliest period presented. The information under "Pro Forma Balance Sheet Data" in the table below assumes the Merger had been consummated on September 30, 2018, using the per share closing price of BioTime Common Shares as of December 17, 2018, as quoted on the NYSE American, to determine the preliminary estimated purchase price. As of September 30, 2018, BioTime owns approximately 39% of the issued and outstanding shares of Asterias common stock.

The unaudited pro forma condensed combined financial information includes adjustments which are preliminary and may be revised. There can be no assurance that such revisions will not result in material changes. In addition, the unaudited pro forma condensed combined financial information does not reflect any cost savings or associated costs to achieve such savings from operating efficiencies, synergies, debt refinancing or other restructuring that may result from the Merger. The information presented below should be read in conjunction with the historical consolidated financial statements of each of BioTime and Asterias, including the related notes, filed by each of them with the SEC, and with the Pro Forma Condensed Combined Financial Statements of BioTime and Asterias, including the related notes, appearing elsewhere in this joint proxy statement/prospectus. See the sections entitled "*Where You Can Find More Information*" and "*Unaudited Pro Forma Condensed Combined Financial Information*" for more information. The unaudited pro forma condensed combined financial data are not necessarily indicative of results that actually would have occurred or that may occur in the future had the Merger been completed on the dates indicated.

(in thousands, except for per share data)	Nine months ended September 31, 2018	Year ended December 31, 2017
Pro Forma Statements of Operations Data:		
Total revenues	\$ 4,933	\$ 7,500
Gross profit	4,506	7,167
Loss from operations	(45,602)	(69,467)
Other income, net ⁽¹⁾	51,871	71,994
Net income attributable to shareholders	7,031	5,840
Net income per share of common stock, basic and diluted	\$ 0.05	\$ 0.04

**As of
September
30, 2018**

Pro Forma Balance Sheet Data:	
Working capital	\$ 34,570

Total assets	197,733
Current portion of long-term debt ⁽²⁾	718
Long-term debt, net of current portion ⁽²⁾	2,025
Noncontrolling interests deficit in subsidiaries	(1,569)

⁽¹⁾ Primarily generated by BioTime from gains on deconsolidations of former subsidiaries other than Asterias and mark to market adjustments of retained ownership interests in those affiliates. Upon deconsolidation, the retained ownership interests in those affiliates, AgeX and OncoCyte Corporation ("**OncoCyte**"), are accounted for at fair value with changes in fair value included in other income and expenses, net. AgeX common stock is listed on the NYSE American under the symbol "AGE" and OncoCyte common stock is listed on the NYSE American under the symbol "OCX".

⁽²⁾ Primarily comprised of lease liabilities, capital lease obligations and liability classified warrants.

COMPARATIVE HISTORICAL AND PRO FORMA PER SHARE FINANCIAL DATA

The following table sets forth, for the nine months ended September 30, 2018 and the year ended December 31, 2017, selected per share information for BioTime Common Shares on a historical and pro forma combined basis and, for the nine months ended September 30, 2018 and the year ended December 31, 2017, selected per share information for Asterias Common Stock on a historical and pro forma equivalent basis. Except for the historical information as of and for the year ended December 31, 2017, which is derived from the audited financial statements, the information in the table is unaudited. The pro forma information is presented for illustrative purposes only and is not necessarily indicative of the operating results or financial position that would have occurred if the Merger and the other transactions contemplated by the Merger Agreement had been completed as of the beginning of the periods presented, nor is it necessarily indicative of the future operating results or financial position of BioTime or Asterias following the date of this joint proxy statement/prospectus or following the completion of the Merger. You should read the data with the historical consolidated financial statements and related notes of BioTime and Asterias contained in their respective Annual Reports on Form 10-K for the year ended December 31, 2017, and their respective Quarterly Reports on Form 10-Q for the quarter ended September 30, 2018, as applicable, all of which are incorporated by reference into this joint proxy statement/prospectus. See the section entitled “*Where You Can Find More Information.*”

As of September 30, 2018, BioTime owned approximately 39% of the issued and outstanding shares of Asterias Common Stock. Beginning on May 13, 2016, BioTime uses the equity method of accounting when it has the ability to exercise significant influence, but not control, as determined in accordance with U.S. GAAP, over the operating and financial policies of Asterias. BioTime has elected to account for its Asterias shares at fair value using the equity method of accounting because beginning on May 13, 2016, the date on which BioTime deconsolidated Asterias, BioTime has not had control of Asterias, as defined by U.S. GAAP, but continues to exercise significant influence over Asterias. Under the fair value method, BioTime’s value in shares of Asterias Common Stock is marked to market at each balance sheet date using the closing price of Asterias Common Stock on the NYSE American multiplied by the number of shares of Asterias Common Stock held by BioTime, with changes in the fair value of the Asterias shares included in other income and expenses, net, in the historical consolidated statements of operations. Prior to May 13, 2016, Asterias’ financial statements and results of operations were included with BioTime’s consolidated financial statements and results.

The BioTime Common Shares held by Asterias are accounted for as marketable equity securities at fair value. Asterias values BioTime Common Shares it holds at each balance sheet date using the closing prices of BioTime Common Shares on the NYSE American multiplied by the number of BioTime Common Shares held by Asterias. Beginning on January 1, 2018, with the adoption of Accounting Standards Update 2016-01, *Financial Instruments—Overall: Recognition and Measurement of Financial Assets and Financial Liabilities* (ASU 2016-01), all unrealized gains and losses on BioTime Common Shares Asterias holds are included in other income and expenses, net, in Asterias’ historical operations. Prior to January 1, 2018 and the adoption of ASU 2016-01, these securities were called “available-for-sale securities” and unrealized holding gains and losses were reported in other comprehensive income or loss, net of tax, and were a component of the accumulated other comprehensive loss on the balance sheet. On January 1, 2018, Asterias recorded the cumulative-effect of the accumulated other comprehensive loss to the accumulated deficit balance in accordance with ASU 2016-01. All realized gains and losses on BioTime Common Shares sold are included in other income and expenses, net, for all periods presented. For more information, see

historical financial statements of Asterias referenced above.

The pro forma combined data and Asterias equivalent pro forma data for book value per share gives effect to the Merger as if the Merger had been effective as of September 30, 2018, and as if the Merger had been effective as of January 1, 2017 in the case of the net income or loss per share data. The unaudited pro forma data combines the historical results of Asterias into BioTime's consolidated statement of operations, while eliminating the gain or loss recorded by BioTime and Asterias in their respective historical results. While certain adjustments were made for the estimated impact of fair value adjustments and other Merger-related activity, they are not indicative of what could have occurred had the acquisition taken place on January 1, 2017 or September 30, 2018.

The pro forma combined net income per share of common stock set forth below were calculated using the methodology as described in the section entitled "*Unaudited Pro Forma Condensed Combined Financial Information.*" Neither BioTime nor Asterias has declared a dividend on account of their respective common stock during the periods presented in the following table. The pro forma combined book value per share was calculated by dividing total combined BioTime and Asterias pro forma common shareholders' equity by pro forma equivalent shares of common stock. The pro forma Asterias equivalent per common share amounts were calculated by multiplying the pro forma combined per share amounts by the Exchange Ratio of 0.71.

The unaudited pro forma adjustments are based upon available information and certain assumptions that BioTime and Asterias management believe are reasonable. The unaudited pro forma data, while helpful in illustrating the financial characteristics of the Combined Company under one set of assumptions, does not reflect the impact of factors that may result as a consequence of the Merger or consider any potential impacts of current market conditions or the Merger on revenues, expense efficiencies, debt refinancing or restructuring, among other factors, nor the impact of possible business model changes. As a result, unaudited pro forma data is presented for illustrative purposes only and does not represent an attempt to predict or suggest future results. Upon completion of the Merger, the operating results of Asterias will be reflected in the consolidated financial statements of BioTime on a prospective basis.

	Nine months ended September 30, 2018	Year ended December 31, 2017	
BioTime historical data			
Net loss per share, basic and diluted	\$ (0.01)	\$ (0.17)	
Book value per share	\$ 1.34	\$ 1.29	
Asterias historical data			
Net loss per share, basic and diluted	\$ (0.25)	\$ (0.56)	
Book value per share	\$ 0.44	\$ 0.62	
BioTime unaudited pro forma combined data			
Net income per share, basic and diluted	\$ 0.05	\$ 0.04	
Book value per share	\$ 1.16	n/m	(1)
Asterias equivalent unaudited pro forma data ⁽²⁾			
Net income per share, basic and diluted	\$ 0.03	\$ 0.03	
Book value per share	\$ 0.82	n/m	(1)

⁽¹⁾ Pro forma book value per share as of December 31, 2017 is not meaningful as purchase accounting adjustments were calculated as of September 30, 2018.

⁽²⁾ The Asterias pro forma equivalent per share amounts were calculated by multiplying the pro forma combined amounts by the Exchange Ratio of 0.71.

COMPARATIVE PER SHARE MARKET PRICE AND DIVIDEND INFORMATION

BioTime Common Shares are listed on NYSE American under the symbol “BTX,” and Asterias Common Stock is listed on NYSE American under the symbol “AST.” The following table sets forth the high and low reported closing sale prices per share of BioTime Common Shares and Asterias Common Stock for the calendar quarters indicated. As set forth below, neither BioTime nor Asterias declared any cash dividends on account of the BioTime Common Shares nor the Asterias Common Stock, respectively, for the calendar quarters indicated.

	BioTime Common Shares		Asterias Common Stock	
	High	Low	High	Low
2016				
First Quarter	\$ 3.68	2.08	5.49	2.60
Second Quarter	\$ 3.25	2.29	4.75	2.35
Third Quarter	\$ 3.97	2.70	4.75	2.58
Fourth Quarter	\$ 3.89	2.89	5.65	3.00
2017				
First Quarter	\$ 3.73	2.88	5.00	3.07
Second Quarter	\$ 3.44	2.94	4.30	2.83
Third Quarter	\$ 3.15	2.51	3.75	2.95
Fourth Quarter	\$ 2.84	2.15	3.74	1.95
2018				
First Quarter	\$ 3.10	2.29	2.55	1.45
Second Quarter	\$ 2.64	2.03	1.85	1.25
Third Quarter	\$ 2.79	2.06	1.80	1.30
Fourth Quarter	\$ 2.29	0.86	1.32	0.56
2019				
First Quarter (though January 10, 2019)	\$ 1.20	0.96	0.82	0.67

On November 28, 2018, BioTime distributed approximately 12.7 million AgeX shares owned by BioTime on a pro rata basis, to eligible BioTime shareholders. Eligible BioTime shareholders received one share of AgeX common stock for every 10 BioTime Common Shares held as of the record date of November 16, 2018.

The following table presents trading information for BioTime Common Shares and Asterias Common Stock on November 7, 2018, the last full trading day before the public announcement of the proposed acquisition of Asterias by BioTime, and [], 2019, the latest practicable trading day before the date of this joint proxy statement/prospectus.

BioTime Common Shares Asterias Common Stock

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	High	Low	Close	High	Low	Close
November 7, 2018	\$2.14	\$2.07	\$2.1	\$1.2	\$1.05	\$1.06
[], 2019	\$[]	\$[]	\$[]	\$[]	\$[]	\$[]

For illustrative purposes, the following table provides equivalent per share information for Asterias Common Stock on November 7, 2018, the last full trading day before the public announcement of the proposed acquisition of Asterias by BioTime, and [], 2019, the latest practicable trading day before the date of this joint proxy statement/prospectus. Equivalent per share amounts for Asterias Common Stock are calculated by multiplying per share information for BioTime Common Shares by the Exchange Ratio of 0.71, rounded to the nearest whole cent.

	BioTime Common Shares			Asterias Equivalent Common Stock		
	High	Low	Close	High	Low	Close
November 7, 2018	\$1.52	\$1.47	\$1.49	\$0.85	\$0.75	\$0.75
[], 2019	\$[]	\$[]	\$[]	\$[]	\$[]	\$[]

BioTime shareholders and Asterias stockholders are advised to obtain current market quotations for BioTime Common Shares and Asterias Common Stock. The market price of BioTime Common Shares and Asterias Common Stock will fluctuate between the date of this joint proxy statement/prospectus and the date of completion of the Merger. No assurance can be given concerning the market price of BioTime Common Shares or Asterias Common Stock before or after the effective time of the Merger. Changes in the market price of BioTime Common Shares prior to the completion of the Merger will affect the market value of the merger consideration that Asterias stockholders will receive upon completion of the Merger.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus and the documents incorporated by reference into this joint proxy statement/prospectus contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 with respect to the financial condition, results of operations, business strategies, operating efficiencies or synergies, revenue enhancements, competitive positions, growth opportunities, plans and objectives of the management of each of BioTime, Asterias and the Combined Company, the Merger and the markets for BioTime Common Shares and Asterias Common Stock and other matters. Statements in this joint proxy statement/prospectus and the documents incorporated by reference herein that are not historical facts are hereby identified as “forward-looking statements” for the purpose of the safe harbor provided by Section 21E of the Exchange Act, and Section 27A of the Securities Act. These forward-looking statements, including, without limitation, those relating to the future business prospects, revenues and income of BioTime and Asterias, wherever they occur in this joint proxy statement/prospectus or the documents incorporated by reference herein, are necessarily estimates reflecting the best judgment of the respective managements of BioTime and Asterias and involve a number of risks and uncertainties that could cause actual results to differ materially from those suggested by the forward-looking statements. These forward-looking statements should, therefore, be considered in light of various important factors, including those set forth in and incorporated by reference into this joint proxy statement/prospectus.

Words such as “estimate,” “project,” “plan,” “intend,” “expect,” “anticipate,” “believe,” “would,” “should,” “could” and similar are intended to identify forward-looking statements. These forward-looking statements are found at various places throughout this joint proxy statement/prospectus, including in the section entitled “*Risk Factors*.” Important factors that could cause actual results to differ materially from those indicated by such forward-looking statements include those set forth in BioTime’s and Asterias’ filings with the SEC, including their respective Annual Reports on Form 10-K for the fiscal year ended December 31, 2017 and Quarterly Reports on Form 10-Q for the fiscal quarter ended September 30, 2018, as well as, among others, risks and uncertainties relating to:

the receipt of approval of both BioTime’s and Asterias’ stockholders;

the possibility of regulatory challenges to the transactions contemplated by the Merger Agreement;

the parties’ ability to meet expectations regarding the timing, completion and accounting and tax treatments of the Merger;

the possibility that the parties may be unable to achieve expected synergies and operating efficiencies in connection with the Merger within the expected time frames or at all and to successfully integrate Asterias’ operations into those of BioTime;

continued liquidity and sufficiency of capital, including capital necessary to consummate the proposed transaction;

general economic and market conditions;

the integration of Asterias' operations into those of BioTime being more difficult, time-consuming or costly than expected;

operating costs and business disruption (including, without limitation, difficulties in maintaining relationships with employees, customers, clients or suppliers) being greater than expected following the transaction;

the difficulty of retaining certain key employees of Asterias;

BioTime's and Asterias' ability to adapt its services to changes in technology or the marketplace;

the outcome of litigation in which BioTime or Asterias is or may become involved;

pricing trends, including BioTime's and Asterias' ability to achieve economies of scale in manufacturing and capital costs;

BioTime's and Asterias' ability to implement their respective business strategies;

the success of new products released by BioTime and Asterias, if any;

the integration of new businesses BioTime may acquire or new business ventures BioTime may start;

changes to and the impact of the laws, rules and regulations (including tax and healthcare laws, rules and regulations) that apply to and regulate BioTime's and Asterias' operations; and

other developments in the markets in which Asterias and BioTime operate, as well as management's response to any of the aforementioned factors.

The parties undertake no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise. In the event that a party does update any forward-looking statement, no inference should be made that the parties will make additional updates with respect to that statement, related matters or any other forward-looking statements.

RISK FACTORS

In addition to the other information contained in or incorporated by reference into this joint proxy statement/prospectus, including the matters addressed in the section entitled “Cautionary Statement Regarding Forward-Looking Statements,” BioTime shareholders should carefully consider the following risks in deciding whether to vote for the approval of the BioTime proposals, and Asterias stockholders should carefully consider the following risk factors in deciding whether to vote for the Asterias proposals. In addition, shareholders of BioTime and stockholders of Asterias should read and consider the risks associated with each of the businesses of BioTime and Asterias because these risks will relate to the Combined Company. Certain of these risks can be found in BioTime’s Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2018, which is incorporated by reference into this joint proxy statement/prospectus, and Asterias’ Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2018, which is incorporated by reference into this joint proxy statement/prospectus. You should carefully read this entire joint proxy statement/prospectus and its Annexes and the other documents incorporated by reference into this joint proxy statement/prospectus. See the section entitled “Where You Can Find More Information.”

Risks Related to the Merger

The Exchange Ratio is fixed and will not be adjusted in the event of any change in the stock prices of either BioTime or Asterias.

Upon closing of the Merger, each share of Asterias Common Stock will be converted into the right to receive 0.71 BioTime Common Shares with cash paid in lieu of fractional shares. This Exchange Ratio is fixed in the Merger Agreement and will not be adjusted for changes in the market price of either BioTime Common Shares or Asterias Common Stock. Because the Exchange Ratio is fixed, changes in the price of BioTime Common Shares prior to the Merger will affect the value of the merger consideration that Asterias stockholders will receive on the date of the Merger. In addition, BioTime will issue an amount of BioTime Common Shares in the Merger based on the number of shares of Asterias Common Stock outstanding as of the effective time of the Merger, and the amount of BioTime Common Shares issued in the Merger will not change based on the price of BioTime Common Shares or Asterias Common Stock as of the date of the Merger or their relative price, or any changes in their price or relative price prior to the Merger.

Stock price changes may result from a variety of factors (many of which are beyond our control), including the following:

changes in our respective businesses, operations and prospects;

changes in market assessments of the business, operations, and prospects of either company;

investor behavior and strategies, including market assessments of the likelihood that the Merger will be completed;

interest rates, general market and economic conditions and other factors generally affecting the price of BioTime Common Shares and Asterias Common Stock; and

federal, state, and local legislation, governmental regulation, and legal developments in the jurisdictions in which Asterias and BioTime operate.

The price of BioTime Common Shares at the closing of the Merger may vary from its price on the date the Merger Agreement was executed, on the date of this joint proxy statement/prospectus, and/or on the dates of the special meetings of BioTime and Asterias. As a result, the market value represented by the Exchange Ratio will also vary. For example, based on the range of closing prices of BioTime Common Shares during the period from November 7, 2018, the last full trading day before BioTime's public announcement of its intent to acquire Asterias, through [], 2019, the latest practicable date before the date of this joint proxy statement/prospectus, the Exchange Ratio represented a market value ranging from a low of [] to a high of [] for each share of Asterias Common Stock.

The ability of BioTime and Asterias to complete the Merger is subject to a number of conditions. If the conditions to the Merger are not met, the Merger may not occur.

The Merger Agreement specifies certain conditions must be satisfied or waived to complete the Merger. BioTime cannot assure you that all of the conditions will be satisfied or waived. If the conditions are not satisfied or waived, the Merger may not occur or will be delayed, and BioTime may lose some or all of the intended benefits of the Merger.

Among other conditions, completion of the Merger is subject to the condition that (i) the BioTime Merger and Share Issuance Proposal be approved by the affirmative vote of the holders of a majority of the total votes of BioTime Common Shares cast in person or by proxy at the special meeting to approve the BioTime Share Issuance pursuant to the NYSE American Rules and (ii) the Asterias Merger Proposal be approved by the affirmative vote of the holders of a majority of the outstanding shares of Asterias Common Stock entitled to vote in person or by proxy at the special meeting pursuant to Delaware law. These and the other conditions to the completion of the Merger may not be fulfilled, and if this occurs, the Merger may not be completed. In addition, if the Merger is not completed by May 31, 2019, either BioTime or Asterias may choose not to proceed with the Merger, and the parties can mutually decide to terminate the Merger Agreement at any time prior to the consummation of the Merger, before or after shareholder approval. In addition, BioTime or Asterias may elect to terminate the Merger Agreement in certain other circumstances. See the sections entitled “*The Merger Agreement—Conditions to the Completion of the Merger*” and “*The Merger Agreement—Termination of the Merger Agreement*” for a fuller description of these circumstances.

Any delay in completing the Merger may reduce or eliminate the expected benefits from the transaction.

The Merger is subject to a number of conditions beyond BioTime’s and Asterias’ control that may prevent, delay or otherwise materially adversely affect its completion. BioTime and Asterias cannot predict whether and when these other conditions will be satisfied. There can be no assurance that either BioTime or Asterias or both parties will waive any condition to closing that is not satisfied. Furthermore, the requirements for obtaining the required approvals and the time required to satisfy any other conditions to the closing could delay the completion of the Merger for a significant period of time or prevent it from occurring. Any delay in completing the Merger could cause BioTime not to realize some or all of the benefits that it expects to achieve if the Merger is successfully completed within its expected timeframe. See the section entitled “*The Merger Agreement—Conditions to the Completion of the Merger.*”

Failure to complete the Merger could negatively impact the stock prices and the future business and financial results of BioTime and Asterias.

If the Merger is not completed, the ongoing businesses of BioTime or Asterias may be adversely affected and BioTime and Asterias will be subject to several risks, including the following:

being required, under certain circumstances, to pay a termination fee of \$2.0 million or, under specified circumstances, an expense reimbursement of \$1.5 million (see the section entitled “*The Merger Agreement—Expenses and Termination Fees*”);

having to pay certain costs relating to the proposed Merger, such as legal, accounting, financial advisor, filing, printing and mailing fees;

under the Merger Agreement, each of BioTime and Asterias being subject to certain restrictions on the conduct of its business until the earlier of the effective time of the Merger or termination of the Merger Agreement, which may adversely affect its ability to execute certain business strategies; and

directing the focus of management of each of the companies on the Merger instead of on pursuing other opportunities that may be beneficial to each company.

If the Merger does not occur, BioTime and Asterias may incur these costs without realizing any of the benefits of the Merger being completed. In addition, if the Merger is not completed, BioTime and/or Asterias may experience negative reactions from the financial markets and from their respective customers and employees. BioTime and/or Asterias could also be subject to litigation related to any failure to complete the Merger or to enforcement proceedings commenced against BioTime or Asterias to perform their respective obligations under the Merger Agreement. If the Merger is not completed, BioTime and Asterias cannot assure their respective shareholders that these risks will not materialize or will not materially affect the business, financial results and stock prices of Asterias or BioTime.

The Merger Agreement contains provisions that could discourage a potential competing acquiror or could result in any competing proposal being offered at a lower price than it might otherwise be.

The Merger Agreement contains “no shop” provisions that, after the expiration of the “go-shop” period, which concluded on December 3, 2018, with no parties qualifying as Excluded Parties, subject to limited exceptions, restrict Asterias’ ability to solicit, encourage, facilitate or discuss competing third-party proposals to acquire all or a significant part of Asterias. In addition, BioTime generally has an opportunity to offer to modify the terms of the Merger and the Merger Agreement in response to any competing Acquisition Proposals that may be made before the Asterias Board may withdraw or modify its recommendation. In some circumstances, upon termination of the Merger Agreement, one of the parties may be required to pay a termination fee to the other party. For additional information, see the sections entitled “*The Merger Agreement—Asterias Go-Shop*”, “*The Merger Agreement — No Solicitation of Alternative Proposals*,” “*The Merger Agreement —Termination Rights in Response to a Superior Proposal; Changes in Board Recommendations*” and “*The Merger Agreement —Termination of the Merger Agreement.*”

These provisions could discourage a potential competing acquiror from considering or proposing that acquisition, even if it were prepared to pay consideration with a higher per share cash or market value than that market value proposed to be received or realized in the Merger, or might result in a potential competing acquiror proposing to pay a lower price than it might otherwise have proposed to pay because of the added expense of the termination fee that may become payable in certain circumstances.

The Merger will involve substantial transaction and Merger-related transition costs in connection with the Merger.

BioTime and Asterias have incurred and expect to continue to incur substantial, non-recurring costs and expenses relating directly to the Merger and integrating the operations of Asterias, including fees and expenses payable to legal, accounting, financial advisors, other professional fees and expenses, insurance premium costs, SEC filing fees, printing and mailing costs and other transaction-related costs, fees and expenses. BioTime and Asterias may incur additional costs to maintain employee morale and the retain key employees. If the Merger is not completed, BioTime and Asterias will have incurred substantial expenses for which no ultimate benefit will have been received by either company.

The pendency of the Merger and related uncertainty could adversely affect the relationships of BioTime and Asterias with employees, collaboration partners, financing parties and other third parties.

Uncertainty about the effect of the Merger on employees, programs in development, collaboration partners and other third parties may have an adverse effect on Asterias and BioTime. These uncertainties may cause collaboration partners, financing parties and others that deal with Asterias or BioTime to seek to change, delay or defer decisions with respect to existing or future business relationships. Retention, hiring and motivation of certain current and prospective employees by Asterias or BioTime may be challenging while the Merger is pending, as they may experience uncertainty about their future roles with Asterias or BioTime due to the potential complexities of the Merger. If key employees, collaboration partners, financing parties and other third parties terminate or change, or seek to terminate or change, their existing relationships with Asterias or BioTime, Asterias' business or BioTime's business, and the Combined Company's business as a result, could be harmed.

The consummation of the Merger may permit counterparties to other agreements to terminate those agreements.

Asterias is party to certain agreements that give the counterparties to such agreements, including investors and commercial partners, certain rights, including notice, consent and other rights in connection with “change of control” transactions or otherwise, that may give rise to a default by Asterias under the agreements or a right by the counterparty to terminate the agreement. Under certain of these agreements, the Merger may constitute a “change of control” or otherwise give rise to consent or termination rights and, therefore, the counterparties may assert their rights in connection with the Merger and claim a default of the agreement by Asterias and/or terminate the agreements, which may adversely affect business and operations of BioTime and the value of BioTime’s common stock following the Merger.

The fairness opinions obtained by the BioTime Special Committee and the Asterias Special Committee from their respective financial advisors will not be updated to reflect changes in circumstances between signing the Merger Agreement and the completion of the Merger.

Neither the BioTime Special Committee nor the Asterias Special Committee has obtained an updated fairness opinion as of the date of this joint proxy statement/prospectus from Maxim, the BioTime Special Committee financial advisor, or Raymond James, the Asterias Special Committee’s financial advisor. Changes in the operations and prospects of BioTime or Asterias, general market and economic conditions, and other factors that may be beyond the control of BioTime and Asterias and on which the fairness opinions were based, may alter the value of BioTime or Asterias or the price of BioTime Common Shares or Asterias Common Stock by the time the Merger is completed.

The fairness opinions do not speak as of the time the Merger will be completed or as of any date other than the dates of such opinions. Neither BioTime nor Asterias anticipates asking their respective financial advisors to update their fairness opinions. The fairness opinions of Maxim and Raymond James are included as **Annexes B** and **C**, respectively, to this joint proxy statement/prospectus. For a description of the fairness opinions that the BioTime Special Committee received from its financial advisor and a summary of the material financial analyses it provided to the BioTime Special Committee in connection with rendering such opinions, see the section entitled “*The Merger—Opinion of BioTime’s Financial Advisor.*” For a description of the opinion that the Asterias Special Committee received from its financial advisor and a summary of the material financial analyses such financial advisor provided to the Asterias Special Committee in connection with rendering such opinion, see the section entitled “*The Merger—Opinion of Asterias’ Financial Advisor.*”

For a description of the factors considered by the BioTime Special Committee in determining to approve the Merger and the BioTime Share Issuance, see the section entitled “*The Merger—BioTime’s Reasons for the Merger and BioTime Share Issuance; Recommendation of the BioTime Special Committee and Board of Directors.*” For a description of the factors considered by the Asterias Board in determining to approve the Merger Agreement and the Merger, see the section entitled “*The Merger—Asterias’ Reasons for the Merger; Recommendation of the Asterias*

Special Committee and Board of Directors.”

Certain directors and executive officers of BioTime and Asterias have interests in the Merger that may be different from, or in addition to, the interests of BioTime’s shareholders and Asterias’ stockholders generally.

Certain executive officers of BioTime and Asterias participated in the negotiation of the terms of the Merger Agreement. BioTime and Asterias each formed a Special Committee. The BioTime Board and the Asterias Board, upon the recommendation of each respective Special Committee, approved the Merger Agreement and determined that the Merger Agreement and the other transactions contemplated by the Merger Agreement are fair, advisable, and in the best interests of each company and its respective shareholders and stockholders. In considering these facts and the other information contained in this joint proxy statement/prospectus, you should be aware that certain of BioTime’s directors and executive officers and certain of Asterias’ directors and executive officers have interests in the Merger that may be different from, or in addition to, the interests of BioTime shareholders or Asterias stockholders. For example, some BioTime directors and executive officers own shares in Asterias and serve on the Asterias Board, and some Asterias directors own shares of BioTime and serve on the BioTime Board. See the sections entitled “*Stock Ownership of Certain Beneficial Owners and Management/Directors of BioTime*,” “*The Merger—Interests of BioTime’s Directors and Executive Officers in the Merger*,” “*Stock Ownership of Certain Beneficial Owners and Management/Directors of Asterias*” and “*The Merger—Interests of Asterias’ Directors and Executive Officers in the Merger*.”

Asterias stockholders will not be entitled to dissenters' or appraisal rights in the Merger.

Dissenters' or appraisal rights are statutory rights that, if applicable under law, enable stockholders of a corporation to dissent from an extraordinary transaction, such as a merger, and to demand that such corporation pay the fair value for their shares as determined by a court in a judicial proceeding instead of receiving the consideration offered to stockholders in connection with the extraordinary transaction. Under the DGCL, stockholders do not have appraisal rights if the shares of stock they hold, at the record date for determination of stockholders entitled to vote at the meeting of stockholders to act upon the Merger or consolidation, are either (i) listed on a national securities exchange or (ii) held of record by more than 2,000 holders. Notwithstanding the foregoing, appraisal rights are available if stockholders are required by the terms of the Merger Agreement to accept for their shares anything other than (a) shares of stock of the surviving corporation, (b) shares of stock of another corporation that will either be listed on a national securities exchange or held of record by more than 2,000 holders, (c) cash instead of fractional shares or (d) any combination of clauses (a)-(c).

Because Asterias Common Stock is listed on NYSE American, a national securities exchange, and is expected to continue to be so listed on the record date, and because the Merger otherwise satisfies the foregoing requirements, holders of Asterias Common Stock will not be entitled to dissenters' or appraisal rights in the Merger with respect to their shares of Asterias Common Stock.

Until the completion of the Merger or the termination of the Merger Agreement in accordance with its terms, in consideration of the agreements made by the parties in the Merger Agreement, BioTime and Asterias are each prohibited from entering into certain transactions and taking certain actions that might otherwise be beneficial to BioTime or Asterias and their respective shareholders and stockholders.

Until the Merger is completed, the Merger Agreement restricts each of BioTime and Asterias from taking specified actions without the consent of the other party, and generally requires each of BioTime and Asterias to operate in the ordinary course of business consistent with past practices. Asterias is subject to a number of customary interim operating covenants relating to, among other things, its capital expenditures, incurrence of indebtedness, entry into or amendment of certain types of agreements, equity grants and changes in employee compensation. These restrictions may prevent BioTime and/or Asterias from making appropriate changes to their respective businesses or pursuing attractive business opportunities that may arise prior to the completion of the Merger. See the section entitled "*The Merger Agreement—Conduct of Business*" for a description of the restrictive covenants applicable to BioTime and Asterias, respectively.

The Merger may be completed even though material adverse changes may result from the announcement of the Merger, industry-wide changes and other causes.

In general, either BioTime or Asterias can refuse to complete the Merger if there is a material adverse change affecting the other party between November 7, 2018, the date of the Merger Agreement, and the effective time of the Merger. However, certain types of changes do not permit either party to refuse to complete the Merger, even if such change could be said to have a material adverse effect on BioTime or Asterias, including:

conditions in the industries in which BioTime and Asterias operate;

general economic conditions in the United States or any other country;

conditions in the securities markets, credit markets, currency markets or other financial markets in the United States or any other country;

political conditions in the United States or any other country or acts of war, sabotage or terrorism in the United States or any other country;

earthquakes, hurricanes, tsunamis, tornadoes, floods, mudslides, wild fires or other natural disasters, weather conditions and other force majeure events in the United States or any other country;

changes in law or other legal or regulatory conditions or changes in U.S. GAAP or other accounting standards;

changes in stock price or the trading volume of BioTime's or Asterias' stock, or any failure by BioTime or Asterias to meet any public estimates or expectations of Asterias' revenue, earnings or other financial performance or results of operations for any period, but not, in each case, the underlying cause of such changes or failures;

effects directly resulting from the announcement of the Merger Agreement or the pendency of the Merger, including any loss of employees of Asterias and/or BioTime; and

either Asterias or BioTime taking any action explicitly contemplated by the Merger Agreement (except certain actions taken in the ordinary course of Asterias' or BioTime's business).

If adverse changes occur and BioTime and Asterias still complete the Merger, the Combined Company stock price may suffer. This in turn may reduce the value of the Merger.

Risks Related to the Business of the Combined Company Following the Merger

BioTime is expected to incur substantial expenses related to the integration of BioTime and Asterias.

BioTime is expected to incur substantial expenses in connection with the integration of the business, policies, procedures, operations, technologies and systems of Asterias with those of BioTime. There are a large number of systems that must be integrated, including management information, purchasing, administrative, accounting and finance, sales, marketing, billing, payroll and benefits, installation, engineering, infrastructure and regulatory compliance, among others. While BioTime has assumed that a certain level of expenses would be incurred, there are a number of factors beyond its control that could affect the total amount or the timing of all of the expected integration expenses. Moreover, many of the expenses that will be incurred are, by their nature, difficult to estimate accurately at the present time. These integration expenses likely will result in BioTime taking significant charges against earnings following the completion of the Merger, but the amount and timing of such charges are uncertain at present, and if such charges are greater than expected, they could offset the cost synergies that BioTime expects to achieve from the Merger.

Following the Merger, the Combined Company may be unable to integrate successfully the businesses of BioTime and Asterias and realize the anticipated benefits of the Merger.

The Merger involves the combination of two companies which currently operate as independent public companies. Following the Merger, the Combined Company will be required to devote significant management attention and resources to integrating its business practices and operations. The Combined Company may fail to realize some or all of the anticipated benefits of the Merger if the integration process takes longer than expected or is more costly than expected. Potential difficulties the Combined Company may encounter in the integration process include the following:

the inability to successfully combine the businesses of BioTime and Asterias in a manner that permits the Combined Company to achieve the synergies anticipated to result from the Merger, which would result in the anticipated benefits of the Merger not being realized partly or wholly in the time frame currently anticipated or at all;

lost sales and customers as a result of certain customers of either of the two companies deciding not to do business with the Combined Company;

complexities associated with managing the combined businesses;

integrating personnel from the two companies;

creation of uniform standards, controls, procedures, policies and information systems;

potential unknown liabilities and unforeseen increased expenses, delays or regulatory conditions associated with the Merger; and

performance shortfalls at one or both of the two companies as a result of the diversion of management's attention caused by completing the Merger and integrating the companies' operations.

In addition, BioTime and Asterias have operated and, until the completion of the Merger, will continue to operate, independently. It is possible that the integration process could result in the diversion of each company's management's attention, the disruption or interruption of, or the loss of momentum in, each company's ongoing businesses or inconsistencies in standards, controls, procedures and policies, any of which could adversely affect our ability to maintain relationships with collaboration partners and employees or our ability to achieve the anticipated benefits of the Merger, or could reduce the earnings or otherwise adversely affect the business and financial results of the Combined Company.

The availability of cells will impact the time and cost of commencing our research and product development programs.

The cells, cell lines and other biological materials that have been acquired by Asterias are being stored under cryopreservation protocols intended to preserve their functionality. Asterias successfully completed the verification of the viability of the lots of AST-OPC1 (as defined below) cells that Asterias has been using in its current SCiStar Phase 1/2a study. However, Asterias does not currently have sufficient amounts of AST-OPC1 cells to complete a large randomized control trial or for future commercial activities. Asterias is developing additional cell banks and modifying its process to generate sufficient amounts of AST-OPC1 cells for use in future trials. These process development activities may increase the costs of the Combined Company's product development for AST-OPC1 and the ability to complete these activities will impact the ability to move forward the overall AST-OPC1 program.

The manufacturing of cells for our clinical programs is difficult and costly.

The Combined Company may need to rely upon third parties to produce AST-OPC1 cells for future studies and commercialization. Asterias is currently relying on CRUK (as defined below) to manufacture AST-VAC2 for its upcoming Phase 1 study in the UK. If the Merger is completed, the Combined Company will not be able to give any assurance that the Combined Company or any third-party manufacturers used by the Combined Company will be able to develop the manufacturing capabilities necessary to supply adequate amounts of product to support the Combined Company's future clinical trials or commercialization. Moreover, the Combined Company will not be able to give any assurance that it or the contract manufacturers or suppliers that the Combined Company selects will be able to supply the Combined Company's products in a timely or cost-effective manner or in accordance with applicable regulatory requirements, the Combined Company's specifications, or the Combined Company's clinical development timelines. The failure of the Combined Company or any of our third-party manufactures or suppliers to comply with regulatory requirements could result in material manufacturing delays and product shortages, which could delay or otherwise

negatively impact the Combined Company's clinical trials and product development plans.

The market price of BioTime's common stock may decline in the future as a result of the Merger.

The market price of BioTime Common Shares may decline in the future as a result of the Merger for a number of reasons, including if the integration of BioTime and Asterias is unsuccessful (including for the reasons set forth in the preceding risk factor) or if BioTime fails to achieve the perceived benefits of the Merger, including financial results, as rapidly as or to the extent anticipated by financial or industry analysts. These factors are, to some extent, beyond the control of BioTime.

Activities undertaken during the pendency of the Merger to complete the Merger and the other transactions contemplated by the Merger Agreement may divert management attention and resources.

If the efforts and actions required of BioTime and Asterias in order to consummate the Merger and the other transactions contemplated by the Merger Agreement are more difficult, costly or time consuming than expected, such efforts and actions could result in the diversion of each company's management's attention and resources or the disruption or interruption of, or the loss of momentum in, each company's ongoing businesses, which could adversely affect the business and financial results of BioTime or Asterias, as applicable.

BioTime's and Asterias' operations require substantial ongoing capital, and if financing is not available to the Combined Company on acceptable terms, the Combined Company may need to raise additional capital by issuing securities or debt through licensing arrangements, which may cause dilution to the Combined Company's shareholders or restrict the Combined Company's operations or proprietary rights.

BioTime's and Asterias' respective businesses are capital intensive. Following the Merger, the Combined Company is expected to incur significant costs on an ongoing basis to continue its operations, develop and manufacture its current or future products, and to pay any significant unplanned or accelerated expenses or for new significant strategic investments. For example, the Combined Company may need or seek to raise capital from third-party fund investors and lenders. Additional financing may not be available to the Combined Company when it needs it, or may not be available on favorable terms. To the extent that the Combined Company raises additional capital by issuing equity securities, such an issuance may cause significant dilution to the Combined Company's shareholders' ownership and the terms of any new equity securities may have preferences over the Combined Company's common stock. Any debt financing the Combined Company enters into may involve covenants that restrict its operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of the Combined Company's assets, as well as prohibitions on its ability to create liens, pay dividends, redeem its stock or make investments. In addition, if the Combined Company raises additional funds through licensing arrangements, it may be necessary to grant licenses on terms that are not favorable to the Combined Company.

BioTime may also need or want to raise additional financing for working capital, capital expenditures, acquisitions or other general corporate purposes in connection with the Merger. BioTime's ability to raise capital from third-party fund investors and lenders to fund its operations and growth, or to refinance its existing indebtedness, will depend on, among other factors, BioTime's financial position and performance, as well as prevailing market conditions and other factors beyond BioTime's control, such as any decisions by credit ratings agencies with respect to credit ratings that they may maintain with respect to BioTime. Any concerns regarding BioTime's business and liquidity, uncertainty regarding the timing and completion of the Merger and the capital structure of Asterias and BioTime following the Merger and general market conditions could negatively impact BioTime's ability to access the capital markets or to raise funds on acceptable terms, or at all.

Current BioTime and Asterias shareholders will have a reduced ownership and voting interest in the Combined Company after the Merger and will exercise less influence over the Combined Company's management.

Current BioTime shareholders currently have the right to vote in the election of the BioTime Board and other matters affecting BioTime. Current Asterias stockholders currently have the right to vote in the election of the Asterias Board and on other matters affecting Asterias. Immediately after the Merger is completed, it is expected that current BioTime shareholders will own approximately []% of the BioTime Common Shares and current Asterias stockholders will own approximately []% of the outstanding BioTime Common Shares after the completion of the Merger, based on the number of shares of common stock outstanding of BioTime and Asterias as of [], the record date for the special meetings.

As a result of the Merger, current BioTime and Asterias shareholders will have less influence on the Combined Company's management and policies than they now have on the management and policies of BioTime and Asterias, respectively.

Future equity issuances could result in dilution of the BioTime Common Shares, which could cause the price of BioTime Common Shares to decline, and future sales of BioTime Common Shares could depress the market price of BioTime Common Shares.

BioTime may from time to time in the future issue additional common shares, including to finance the business of the Combined Company following the Merger. Such future issuances may be at prices that are below the prevailing or historical market price of BioTime Common Shares. Actual or anticipated issuances or sales of substantial amounts of BioTime Common Shares could cause the market price of BioTime Common Shares to decline and make it more difficult for BioTime to sell equity securities in the future at a time and on terms that BioTime deems appropriate. The issuance of any BioTime Common Shares in the future (including after the date of this joint proxy statement/prospectus or the date of the BioTime or Asterias Special Meetings and prior to the completion of the Merger) also would dilute the percentage ownership interest held by shareholders prior to such issuance and would reduce the percentage ownership that Asterias stockholders would have owned in BioTime upon completion of the Merger, and any such dilution may reduce the value of the consideration that Asterias stockholders will receive in the Merger. Further, BioTime's ability to complete any future capital raise, including any offering of BioTime Common Shares, on commercially reasonable terms is dependent on market conditions and factors which may be beyond BioTime's control, including actual or anticipated fluctuations in BioTime's operating results, changes in earnings estimated by securities analysts or BioTime's ability to meet those estimates, the operating performance and stock price of comparable companies, changes to the regulatory and legal environment under which BioTime operates, and domestic and worldwide economic conditions.

The unaudited pro forma condensed combined financial data for BioTime included in this joint proxy statement/prospectus is preliminary, and BioTime's actual financial position and operations after the Merger may differ materially from the unaudited pro forma financial data included in this joint proxy statement/prospectus.

The unaudited pro forma financial data for BioTime included in this joint proxy statement/prospectus is presented for illustrative purposes only and is not necessarily indicative of what BioTime's actual financial position or operations would have been had the Merger been completed within the expected time frame. BioTime's actual results and financial position after the Merger may differ materially and adversely from the unaudited pro forma financial data included in this joint proxy statement/prospectus. The unaudited pro forma condensed combined financial information reflects adjustments, which are based upon preliminary estimates, to record the Asterias identifiable assets acquired and liabilities assumed at fair value and the resulting goodwill. The purchase price allocation reflected in this document is preliminary, and final allocation of the purchase price will be based upon the actual purchase price and the fair value of the assets and liabilities of Asterias as of the date of the completion of the Merger. Further, the Combined Company expects to recognize a significant amount of acquired in-process research and development assets and goodwill in the Merger. The acquired in-process research and development assets and goodwill will be subject to annual impairment assessments, or more frequently if circumstances indicate potential impairment, and a material charge may be necessary if the results of operations and cash flows are unable to support those assets and goodwill subsequent to the Merger. For more information see the section entitled "*Unaudited Pro Forma Condensed Combined Financial Information.*"

The prospective financial forecasts relating to BioTime and Asterias (including the Forecasts used by Maxim and the Projections Used By Raymond James (each as defined below)) included in this joint proxy statement/prospectus (the “Transaction Projections”) reflect estimates made by management of BioTime and Asterias, and BioTime’s and Asterias’ actual performance may differ materially from such prospective financial forecasts.

The Transaction Projections are based on assumptions of, and information available to, BioTime and Asterias at the time such prospective financial forecasts were prepared. Neither BioTime nor Asterias know whether the assumptions made will prove correct. Any or all of such information may turn out to be wrong. Such information can be adversely affected by inaccurate assumptions or by known or unknown risks and uncertainties, many of which are beyond BioTime’s and Asterias’ control. Further, prospective financial forecasts of this type are based on estimates and assumptions that are inherently subject to factors such as company performance, industry performance, general business, economic, regulatory, market and financial conditions, as well as changes to the business, financial condition or results of operations of BioTime and Asterias, including the factors described in the sections entitled “Other Risk Factors of BioTime and Asterias” and “Cautionary Statement Regarding Forward-Looking Statements,” which factors and changes may cause the Transaction Projections or the underlying assumptions to be inaccurate. As a result of these contingencies, there can be no assurance that the Transaction Projections will be realized or that actual results will not be significantly higher or lower than projected. In view of these uncertainties, the inclusion of the Transaction Projections in this joint proxy statement/prospectus should not be regarded as an indication that the BioTime Board, the Asterias Board, BioTime, Asterias, Merger Sub, Maxim, Raymond James or any other recipient of this information considered, or now considers, it to be an assurance of the achievement of future results.

The Transaction Projections were not prepared with a view toward public disclosure or toward compliance with U.S. GAAP, published guidelines of the SEC or the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information.

In addition, the Transaction Projections have not been updated or revised to reflect information or results after the date the Transaction Projections were prepared or as of the date of this joint proxy statement/prospectus. For more information see the section entitled “*The Merger—Certain BioTime and Asterias Unaudited Prospective Financial Information.*”

The Combined Company’s future results will suffer if it does not effectively manage its expanded operations following the Merger.

Following the Merger, the size and scope of operations of the business of the Combined Company will increase beyond the current size and scope of operations of either BioTime’s or Asterias’ current businesses. In addition, BioTime may continue to expand its size and operations through additional acquisitions or other strategic transactions. BioTime’s future success depends, in part, upon its ability to manage its expanded business, which may pose substantial challenges for management, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. There can be no assurances that the BioTime will be successful or that it will realize the expected economies of scale, synergies and other benefits currently anticipated from the Merger or anticipated from any additional acquisitions or strategic transactions.

The trading price of BioTime Common Shares is likely to continue to be volatile.

The trading price of BioTime Common Shares has been highly volatile and could continue to be subject to wide fluctuations in response to various factors, some of which are beyond BioTime’s control. BioTime’s Common Stock has experienced an intra-day trading high of \$[] per share and a low of \$[] per share over the last 52 weeks. The stock market in general, and the market for biotechnology companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may seriously affect the market price of companies’ stock, including BioTime’s, regardless of actual operating performance. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company’s securities, securities class action litigation has often been instituted against these companies.

BioTime’s stock price may be negatively impacted by risks and conditions that apply to BioTime, which are different from the risks and conditions applicable to Asterias.

Upon completion of the Merger, Asterias stockholders will become holders of BioTime Common Shares. The businesses and markets of BioTime and its subsidiaries and the other companies it may acquire in the future are different from those of Asterias. There is a risk that various factors, conditions and developments that would not affect the price of Asterias Common Stock could negatively affect the price of BioTime Common Shares. Please see BioTime's Annual Report on Form 10-K for the fiscal year ended December 31, 2017, as updated by any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K filed with the SEC, all of which are incorporated by reference in this joint proxy statement/prospectus, and the section entitled "*Cautionary Statement Regarding Forward-Looking Statements*" for a summary of some of the key factors that might affect BioTime and the prices at which BioTime Common Shares may trade from time to time.

The BioTime Common Shares to be received by Asterias stockholders as a result of the Merger will have different rights from the shares of Asterias Common Stock currently held by Asterias stockholders.

Upon completion of the Merger, Asterias stockholders will become BioTime shareholders and their rights as shareholders will be governed by BioTime's Charter and BioTime's Bylaws. The rights associated with BioTime Common Shares are different from the rights associated with Asterias Common Stock. See the section entitled "*Comparison of the Rights of Holders of BioTime Common Shares and Holders of Asterias Common Stock*" for a discussion of the different rights associated with BioTime Common Shares.

The Merger may not be accretive and may cause dilution to BioTime's earnings per share, which may negatively affect the market price of BioTime Common Shares.

BioTime currently anticipates that the Merger will be accretive to earnings per share in 2018, excluding one-time costs. This expectation, however, is based on preliminary estimates which may materially change, including the currently expected timing of the Merger. BioTime could also encounter additional transaction-related costs or other factors such as a delay in the closing of the Merger and/or the failure to realize all of the benefits anticipated in the Merger. All of these factors could cause dilution to BioTime's earnings per share or decrease or delay the expected accretive effect of the Merger and cause a decrease in the market price of BioTime Common Shares.

Our ability to use our net operating loss carryforwards ("NOLs") may be limited.

Under the provisions of the Code, changes in our ownership, in certain circumstances, will limit the amount of U.S. federal NOLs that can be utilized annually in the future to offset taxable income. In particular, Section 382 of the Code imposes limitations on a company's ability to use NOLs upon certain changes in such ownership. Calculations pursuant to Section 382 of the Code can be very complicated and no assurance can be given that upon further analysis, our ability to take advantage of our NOLs may be limited to a greater extent than we currently anticipate. If we are limited in our ability to use our NOLs in future years in which we have taxable income, we will pay more taxes than if we were able to utilize our NOLs fully. We may experience ownership changes in the future as a result of subsequent shifts in our stock ownership that we cannot predict or control that could result in further limitations being placed on our ability to utilize our federal NOLs.

Other Risk Factors of BioTime and Asterias

BioTime's and Asterias' businesses are and will be subject to the risks described above. In addition, BioTime and Asterias are, and will continue to be, subject to the risks described in BioTime's Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and Asterias' Annual Report on Form 10-K for the fiscal year ended December 31, 2017, respectively, as, in each case, updated by any subsequent Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, all of which are filed with the SEC and are incorporated by reference into this joint proxy statement/prospectus. See the section entitled "*Where You Can Find More Information*" for the location of information incorporated by reference in this joint proxy statement/prospectus.

THE BIOTIME SPECIAL MEETING OF SHAREHOLDERS

Date, Time and Place of the BioTime Special Meeting of Shareholders

The special meeting of BioTime shareholders will be held at [], on [], 2019 at [], local time.

Purpose of the BioTime Special Meeting of Shareholders

At the BioTime Special Meeting, BioTime shareholders will be asked:

to consider and vote on the BioTime Share Issuance Proposal; and

to consider and vote on the BioTime Adjournment Proposal.

Recommendation of the BioTime Board of Directors

On November 7, 2018, the BioTime Special Committee consisting of three independent and disinterested members of the BioTime Board unanimously determined that the Merger Agreement and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders and recommended to the BioTime Board that it approve and declare fair to, advisable and in the best interests of BioTime shareholders, the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance. After careful consideration, the BioTime Board (by unanimous vote of the disinterested members of the BioTime Board, with Neal C. Bradsher, Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) approved the Merger Agreement and the BioTime Share Issuance and determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders.

Accordingly, the BioTime Board, acting upon the unanimous recommendation of the BioTime Special Committee, recommends that the shareholders of Asterias vote “FOR” each of the BioTime Share Issuance Proposal and the BioTime Adjournment Proposal.

BioTime Record Date; Shareholders Entitled to Vote

Only holders of record of BioTime Common Shares at the close of business on [], 2019, the record date for the BioTime Special Meeting, will be entitled to notice of, and to vote at, the BioTime Special Meeting or any adjournments or postponements thereof. A list of shareholders of record entitled to vote at the special meeting will be available beginning two business days after notice of the special meeting is given, and continuing through the special meeting, at BioTime's executive offices and principal place of business at 1010 Atlantic Avenue, Suite 102, Alameda, CA 94501 for inspection by shareholders during ordinary business hours for any purpose germane to the BioTime Special Meeting. The list will also be available at the BioTime Special Meeting for examination by any shareholder of record present at the BioTime Special Meeting.

As of the close of business on the record date, there were outstanding a total of [] BioTime Common Shares entitled to vote at the BioTime Special Meeting. As of the close of business on the record date, approximately []% of the outstanding BioTime Common Shares were held by BioTime directors and executive officers and their affiliates. We currently expect that BioTime's directors and executive officers will vote their shares in favor of the above-listed proposals, though they are under no obligation to do so.

Quorum

Shareholders who hold at least a majority of the outstanding BioTime Common Shares as of the close of business on the record date and who are entitled to vote must be present or represented by proxy in order to constitute a quorum for the transaction of business at the BioTime Special Meeting. BioTime Common Shares represented at the BioTime Special Meeting and entitled to vote but not voted, including shares for which a shareholder directs an "abstention" from voting and broker non-votes (shares held by banks, brokerage firms or nominees that are present in person or by proxy at the BioTime Special Meeting but with respect to which the broker or other stockholder of record is not instructed by the beneficial owner of such shares how to vote on a particular proposal and the broker does not have discretionary voting power on such proposal), if any, will be counted as present for purposes of establishing a quorum. BioTime Common Shares held in treasury will not be included in the calculation of the number of BioTime Common Shares represented at the meeting for purposes of determining whether a quorum is present.

Required Vote

Approval of the BioTime Share Issuance Proposal requires the affirmative vote of the holders of a majority of the total votes of BioTime Common Shares cast in person or by proxy at the special meeting to approve the BioTime Share Issuance pursuant to NYSE American Rules. Approval of the BioTime Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal pursuant to BioTime's Bylaws.

Abstentions and Broker Non-Votes

If you are a BioTime shareholder and fail to vote or fail to instruct your broker or nominee to vote, or vote to abstain from voting, it will have no effect on the Merger and BioTime Share Issuance Proposal, assuming a quorum is present. If you are a BioTime shareholder and fail to vote or fail to instruct your broker or nominee to vote, it will have no effect on the BioTime Adjournment Proposal, assuming a quorum is present; however, if you vote to abstain, it will have the same effect as a vote against the BioTime Adjournment Proposal.

Voting on Proxies; Incomplete Proxies

A proxy card is enclosed for your use. BioTime requests that you follow the instructions contained on the proxy card and vote via the Internet, by telephone, or mark, sign and date the accompanying proxy and return it promptly in the enclosed postage-paid envelope. When the accompanying proxy is returned properly executed, the BioTime Common Shares represented by it will be voted at the BioTime Special Meeting or any adjournment thereof in accordance with the instructions contained in the proxy.

If a proxy is returned without an indication as to how the BioTime Common Shares represented are to be voted with regard to a particular proposal, the BioTime Common Shares represented by the proxy will be voted in favor of each such proposal. At the date hereof, management has no knowledge of any business that will be presented for consideration at the special meeting and which would be required to be set forth in this joint proxy statement/prospectus or the related BioTime proxy card other than the matters set forth in BioTime's Notice of Special Meeting of Shareholders. If any other matter is properly presented at the BioTime Special Meeting for consideration, it is intended that the persons named in the enclosed form of proxy and acting thereunder will vote in accordance with their best judgment on such matter.

Your vote is important. Accordingly, please vote today following the instructions contained on the enclosed proxy card whether or not you plan to attend the BioTime Special Meeting in person.

Shares Held in “Street Name”

If you hold your shares in a stock brokerage account or if your shares are held by a bank or nominee (that is, in “street name”), your broker, bank, trust company or other nominee cannot vote your shares on “non-routine” matters without instructions from you. You should instruct your broker, bank, trust company or other nominee as to how to vote your shares, following the directions from your broker, bank, trust company or other nominee provided to you. Please check the voting form used by your broker, bank, trust company or other nominee. If you do not provide your broker, bank, trust company or other nominee with instructions on how to vote your shares, your broker, bank, trust company or other nominee may not vote your shares, which will have no effect on the BioTime Share Issuance Proposal and the BioTime Adjournment Proposal, in each case, assuming a quorum is present.

Please note that you may not vote shares held in street name by returning a proxy card directly to BioTime or Asterias or by voting in person at your special meeting unless you provide a “legal proxy,” which you must obtain from your broker, bank, trust company or other nominee.

Revocability of Proxies and Changes to a BioTime shareholder’s Vote

You have the power to revoke your proxy at any time before your proxy is voted at the BioTime Special Meeting. You can revoke your proxy in one of three ways:

you can send a signed notice of revocation;

you can grant a new, valid proxy bearing a later date (including by telephone or through the Internet); or

if you are a holder of record, you can attend the BioTime Special Meeting and vote in person, which will automatically cancel any proxy previously given, or you can revoke your proxy in person, but your attendance alone will not revoke any proxy that you have previously given.

If you choose either of the first two methods, your notice of revocation or your new proxy must be received by BioTime’s Corporate Secretary at 1010 Atlantic Avenue, Suite 102, Alameda, CA 94501, no later than the beginning of the BioTime Special Meeting. If your shares are held in “street name” by your bank or broker, you should contact your broker to change your vote or revoke your proxy.

Solicitation of Proxies

In accordance with the Merger Agreement, the cost of proxy solicitation for the BioTime Special Meeting will be borne by BioTime. In addition to the use of the mail, proxies may be solicited by officers and directors and regular employees of BioTime, some of whom may be considered participants in the solicitation, without additional remuneration, by personal interview, telephone, facsimile or otherwise. BioTime will also request brokerage firms, nominees, custodians and fiduciaries to forward proxy materials to the beneficial owners of shares held of record on the record date and will provide customary reimbursement to such firms for the cost of forwarding these materials. BioTime is not engaging a proxy solicitor and will distribute proxy solicitation materials to brokers, banks and other nominees and will solicit proxies from BioTime shareholders directly.

Attending the BioTime Special Meeting of Shareholders

If you plan to attend the BioTime Special Meeting and wish to vote in person, you will be given a ballot at the special meeting. Please note, however, that if your shares are held in “street name,” and you wish to vote at the special meeting, you must bring to the special meeting a “legal proxy” executed in your favor from the record holder (your broker, bank, trust company or other nominee) of the shares authorizing you to vote at the BioTime Special Meeting.

In addition, if you are a registered shareholder, please be prepared to provide proper identification, such as a driver’s license or passport. If you hold your shares in “street name,” you will need to provide proof of ownership, such as a recent account statement or letter from your broker, bank, trust company or other nominee proving ownership on the BioTime record date, along with proper identification. BioTime shareholders will not be allowed to use cameras, recording devices and other similar electronic devices at the meeting.

Assistance

If you need assistance in completing your proxy card or have questions regarding the BioTime Special Meeting, please contact BioTime Investor Relations by phone at 510-871-4188 or by mail at BioTime, Inc., 1010 Atlantic Avenue, Suite 102, Alameda, California 94501.

THE ASTERIAS SPECIAL MEETING OF STOCKHOLDERS

Date, Time and Place of the Asterias Special Meeting of Stockholders

The special meeting of Asterias stockholders will be held at [], on [], 2019 at [], local time.

Purpose of the Asterias Special Meeting of Stockholders

At the Asterias Special Meeting, Asterias stockholders will be asked:

to consider and vote on the Asterias Merger Proposal; and

to consider and vote on the Asterias Adjournment Proposal.

Recommendation of the Asterias Board and the Asterias Special Committee

The Asterias Special Committee unanimously determined that the terms and conditions of the Merger Agreement, the Merger and the other transactions contemplated thereby are fair to, advisable and in the best interests of the stockholders of Asterias and recommended to the Asterias Board that it approve and declare fair to, advisable and in the best interests of the stockholders of Asterias, the Merger Agreement and the Merger and the other transactions contemplated thereby.

At a duly convened meeting of the Asterias Board to consider the unanimous recommendation of the Asterias Special Committee, the Asterias Board (by unanimous vote of the disinterested members of the Asterias Board, with Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) based in part on the unanimous recommendation of the Asterias Special Committee (i) determined that the Merger Agreement, the Merger and the other transactions contemplated by the Merger Agreement are fair to, advisable and in the best interests of Asterias and its stockholders, (ii) approved the form, terms, provisions and conditions of the Merger Agreement and the consummation of the Merger and the other transactions contemplated by the Merger Agreement, and (iii) resolved to recommend that Asterias' stockholders vote for the adoption of the Merger Agreement.

Accordingly, the Asterias Board, acting upon the unanimous recommendation of the Asterias Special Committee, recommends that the stockholders of Asterias vote “FOR” each of the Asterias Merger Proposal and the Asterias Adjournment Proposal.

Asterias Record Date; Stockholders Entitled to Vote

Only holders of record of shares of Asterias Common Stock at the close of business on [], 2019, the record date for the Asterias Special Meeting, will be entitled to notice of, and to vote at, the Asterias Special Meeting and at any adjournment of the meeting. A list of stockholders of record of Asterias entitled to vote at the special meeting will be available for ten days before the Asterias Special Meeting at Asterias’ executive offices and principal place of business at 6300 Dumbarton Circle, Fremont, California 94555 for inspection by stockholders during ordinary business hours for any purpose relating to the Asterias Special Meeting. The list will also be available at the Asterias Special Meeting for examination by any stockholder of record present at the Asterias Special Meeting.

As of the close of business on the record date, there were outstanding a total of [] shares of Asterias Common Stock entitled to vote at the Asterias Special Meeting. As of the close of business on the record date, approximately []% of the outstanding shares of Asterias Common Stock were held by BioTime. Under the Merger Agreement, BioTime is obligated to vote their shares at the Asterias Special Meeting.

Quorum

A quorum is necessary to transact business at the Asterias Special Meeting. The presence, in person or by proxy, of a majority of all issued and outstanding shares of Asterias Common Stock entitled to vote at the Asterias Special Meeting will constitute a quorum. Shares of Asterias Common Stock represented at the Asterias Special Meeting but not voted, including shares for which a stockholder directs an “abstention” from voting, will be counted as present for purposes of establishing a quorum. Similarly, broker non-votes (shares held by banks, brokerage firms or nominees that are present in person or by proxy at the Asterias Special Meeting but with respect to which the broker or other stockholder of record is not instructed by the beneficial owner of such shares how to vote on a particular proposal and the broker does not have discretionary voting power on such proposal) will be counted as present for purposes of establishing a quorum. Shares of Asterias Common Stock held in treasury will not be included in the calculation of the number of shares of Asterias Common Stock represented at the meeting for purposes of determining whether a quorum is present.

Required Vote

The votes required for each proposal are as follows:

Asterias Merger Proposal: Approval of the Asterias Merger Proposal requires the affirmative vote of holders of a majority of the outstanding shares of Asterias Common Stock entitled to vote in person or by proxy at the Asterias Special Meeting pursuant to Delaware law.

Asterias Adjournment Proposal: Approval of the Asterias Adjournment Proposal requires the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the proposal pursuant to Asterias’ Amended and Restated Bylaws, as amended.

The Asterias Board recommends that Asterias stockholders vote “FOR” the Asterias Merger Proposal and the Asterias Adjournment Proposal, and your properly signed and dated proxy will be so voted unless you specify otherwise.

As of the close of business on the record date, approximately []% of the outstanding shares of Asterias Common Stock were held by BioTime. Under the Merger Agreement, BioTime is obligated to vote their shares at the Asterias Special Meeting. For more information relating to BioTime’s obligation to vote its shares of Asterias Common Stock, see the section entitled “*The Merger Agreement—Voting of Shares of Asterias Common Stock Owned by BioTime.*”

Abstentions and Broker Non-Votes

If you are an Asterias stockholder and fail to vote, fail to instruct your broker or nominee to vote, or vote to abstain, it will have the same effect as a vote against the Asterias Merger Proposal pursuant to Delaware law, which requires that the Asterias Merger Proposal must be approved by a majority of the issued and outstanding shares of Asterias Common Stock entitled to vote in person or by proxy at the Asterias Special Meeting. If you are an Asterias stockholder and fail to vote or fail to instruct your broker or nominee to vote, it will have no effect on the Asterias Adjournment Proposal, assuming a quorum is present. If you are an Asterias stockholder and you mark your proxy or voting instructions to abstain, it will have the effect of a vote against the Asterias Adjournment Proposal.

Voting in Person

If you plan to attend the Asterias Special Meeting and wish to vote in person, you will be given a ballot at the Asterias Special Meeting. Please note, however, that if your shares are held in “street name,” and you wish to vote at the Asterias Special Meeting, you must bring to the Asterias Special Meeting a “legal proxy” executed in your favor from the record holder (your broker, bank, trust company or other nominee) of the shares authorizing you to vote at the Asterias Special Meeting.

In addition, if you are a registered stockholder, please be prepared to provide proper identification, such as a driver’s license or passport. If you hold your shares in “street name,” you will need to provide proof of ownership, such as a recent account statement or letter from your broker, bank, trust company or other nominee proving ownership on the Asterias record date, along with proper identification. Stockholders will not be allowed to use cameras, recording devices and other similar electronic devices at the meeting.

Voting of Proxies; Incomplete Proxies

A proxy card is enclosed for your use. Asterias requests that you mark, sign and date the accompanying proxy and return it promptly in the enclosed postage-paid envelope. When the accompanying proxy is returned properly executed, the shares of Asterias Common Stock represented by it will be voted at the Asterias Special Meeting or any adjournment thereof in accordance with the instructions contained in the proxy.

If a proxy is returned without an indication as to how the shares of Asterias Common Stock represented are to be voted with regard to a particular proposal, the Asterias Common Stock represented by the proxy will be voted in favor of each such proposal. At the date hereof, management has no knowledge of any business that will be presented for consideration at the Asterias Special Meeting and which would be required to be set forth in this joint proxy statement/prospectus or the related Asterias proxy card other than the matters set forth in Asterias' Notice of the Special Meeting of Stockholders. If any other matter is properly presented at the Asterias Special Meeting for consideration, it is intended that the persons named in the enclosed form of proxy and acting thereunder will vote in accordance with their best judgment on such matter.

Your vote is important. Accordingly, please mark, sign, date and return the enclosed proxy card whether or not you plan to attend the Asterias Special Meeting in person.

Shares Held in "Street Name"

If you hold your shares in a stock brokerage account or if your shares are held by a bank or nominee (that is, in "street name"), you must provide the record holder of your shares with instructions on how to vote your shares if you wish them to be counted. Please follow the voting instructions provided by your bank or broker. Please note that you may not vote shares held in street name by returning a proxy card directly to Asterias or by voting in person at the Asterias Special Meeting unless you provide a "legal proxy," which you must obtain from your bank or broker. Further, brokers who hold shares of Asterias Common Stock on behalf of their customers may not give a proxy to Asterias to vote those shares without specific instructions from their customers.

If you are an Asterias stockholder and you do not instruct your broker on how to vote your shares, your broker may not vote your shares, which will have the same effect as a vote against the Asterias Merger Proposal. If you are an Asterias stockholder and do not instruct your broker on how to vote your shares, it will have no effect on the Asterias Adjournment Proposal, assuming a quorum is present.

Revocability of Proxies

You have the power to revoke your proxy at any time before your proxy is voted at the Asterias Special Meeting. You can revoke your proxy in one of three ways:

you can send a signed notice of revocation;

you can grant a new, valid proxy bearing a later date (including by telephone or through the Internet); or

if you are a holder of record, you can attend the Asterias Special Meeting and vote in person, which will automatically cancel any proxy previously given, or you can revoke your proxy in person, but your attendance alone will not revoke any proxy that you have previously given.

If you choose either of the first two methods, your notice of revocation or your new proxy must be received by Asterias' Corporate Secretary at Asterias Biotherapeutics, Inc. 6300 Dumbarton Circle, Fremont, California, 94555 no later than the beginning of the Asterias Special Meeting. If your shares are held in "street name" by your bank or broker, you should contact your broker to change your vote or revoke your proxy.

Solicitation of Proxies

In accordance with the Merger Agreement, the cost of proxy solicitation for the Asterias Special Meeting will be borne by Asterias. In addition to the use of the mail, proxies may be solicited by officers and directors and regular employees of Asterias, some of whom may be considered participants in the solicitation, without additional remuneration, by personal interview, telephone, facsimile or otherwise. Asterias will also request brokerage firms, nominees, custodians and fiduciaries to forward proxy materials to the beneficial owners of shares held of record on the record date and will provide customary reimbursement to such firms for the cost of forwarding these materials. Asterias has retained Advantage Proxy to assist in its solicitation of proxies and has agreed to pay them a fee of up to \$10,000, plus reasonable expenses, for these services.

Adjournments

If a quorum is not present or represented, the stockholders entitled to vote at the Asterias Special Meeting, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. If a quorum is present at the Asterias Special Meeting but there are not sufficient votes at the time of the Asterias Special Meeting to approve the Asterias Merger Proposal, then Asterias stockholders may be asked to vote on the Asterias Adjournment Proposal. No notices of an adjourned meeting need be given unless the adjournment is for more than 30 days or, if after the adjournment, a new record date is fixed for the adjourned meeting, in which case a notice of the adjourned meeting will be given to each stockholder of record entitled to vote at the meeting. At any subsequent reconvening of the Asterias Special Meeting at which a quorum is present, any business may be transacted that might have been transacted at the original meeting and all proxies will be voted in the same manner as they would have been voted at the original convening of the Asterias Special Meeting, except for any proxies that have been effectively revoked or withdrawn prior to the time the proxy is voted at the reconvened meeting.

Assistance

If you need assistance in completing your proxy card or have questions regarding the Asterias Special Meeting, please contact Advantage Proxy, Asterias' proxy advisor:

Advantage Proxy, Inc.

P.O. Box 13581

Des Moines, WA 98198

Toll Free Telephone: 877-870-8565

Main Telephone: 206-870-8565

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INFORMATION ABOUT THE COMPANIES

BioTime, Inc.

BioTime, Inc.

1010 Atlantic Avenue, Suite 102

Alameda, CA 94501

Phone: (510) 521-3390

BioTime, Inc., a California corporation, is a clinical-stage biotechnology company targeting degenerative diseases. BioTime's programs are based on two core proprietary technology platforms: cell replacement and cell/drug delivery. With BioTime's cell replacement platform, BioTime is creating new cells and tissues with BioTime's pluripotent and progenitor cell technologies. These cells and tissues are developed to replace those that are either rendered dysfunctional or lost due to degenerative diseases. BioTime's cell/drug delivery programs are based upon BioTime's proprietary *HyStem*[®] cell and drug delivery matrix technology. *HyStem*[®] was designed to provide for the transfer, retention, engraftment and metabolic support of cellular replacement therapy.

BioTime's common shares are listed on NYSE American under the symbol "BTX."

Additional information about BioTime and its subsidiaries is included in the documents incorporated by reference in this joint proxy statement/prospectus. See the section entitled "*Where You Can Find More Information.*"

Asterias Biotherapeutics, Inc.

Asterias Biotherapeutics, Inc.

6300 Dumbarton Circle

Fremont, California 94555

Phone: (510) 456-3800

Asterias is a clinical-stage biotechnology company dedicated to developing pluripotent stem cell-derived therapies to treat neurological conditions associated with demyelination and cellular immunotherapies to treat cancer. Asterias has industry-leading technology in two cell types, each with broad potential applicability: (1) oligodendrocyte progenitor cells, which become oligodendrocytes that have the potential to remyelinate axons within the central nervous system and perform other restorative functions, and (2) antigen-presenting dendritic cells, which train T-cells in the immune system to attack and destroy solid or liquid tumor cells across multiple types of cancer. Asterias currently has three clinical-stage therapeutic programs, focusing on spinal cord injury, non-small cell lung cancer and acute myeloid leukemia.

Asterias Common Stock is listed on the NYSE American under the symbol “AST.”

Additional information about Asterias is included in documents incorporated by reference in this joint proxy statement/prospectus. See the section entitled “*Where You Can Find More Information.*”

Merger Sub

Patrick Merger Sub, Inc.

1010 Atlantic Avenue, Suite 102

Alameda, CA 94501

Phone: (510) 521-3390

Patrick Merger Sub, Inc., a wholly owned subsidiary of BioTime, is a Delaware corporation that was formed on November 5, 2018 for the purpose of effecting the Merger. Upon completion of the Merger, Merger Sub will be merged with and into Asterias, with Asterias surviving as a wholly owned subsidiary of BioTime. Merger Sub has not conducted any activities other than those incidental to its formation and the matters contemplated by the Merger Agreement in connection with the Merger.

THE MERGER

*This discussion of the Merger is qualified in its entirety by reference to the Merger Agreement, which is attached to this joint proxy statement/prospectus as **Annex A** and is incorporated by reference into this joint proxy statement/prospectus. This summary does not purport to be complete and may not contain all of the information about the Merger that is important to you. You should read the entire Merger Agreement carefully as it is the legal document that governs the Merger. This section is not intended to provide you with any factual information about BioTime or Asterias. Such information can be found elsewhere in this joint proxy statement/prospectus and in the public filings BioTime or Asterias make with the SEC that are incorporated by reference into this joint proxy statement/prospectus, as described in the section entitled “Where You Can Find More Information.”*

Structure of the Merger

At the effective time of the Merger, Merger Sub, a wholly owned subsidiary of BioTime formed to effect the Merger, will merge with and into Asterias. Asterias will be the surviving corporation in the Merger and will thereby become a wholly owned subsidiary of BioTime.

Merger Consideration

In the Merger, each outstanding share of Asterias Common Stock (other than shares owned by Asterias, BioTime or Merger Sub, which will be cancelled) will be converted into the right to receive 0.71 BioTime Common Shares, with cash paid in lieu of fractional shares. This Exchange Ratio is fixed and will not be adjusted to reflect stock price changes prior to closing of the Merger. BioTime shareholders will continue to hold their existing BioTime shares.

Background of the Merger

As part of the continuous evaluation of Asterias’ clinical and pre-clinical programs and financing needs, the Asterias Board and senior management regularly considered a variety of potential strategic options and transactions, all in a continued effort to enhance stockholder value. Over the past several years, the Asterias Board considered potential strategic alternatives, financings and partnership opportunities presented or potentially available to Asterias, as well as the opportunities and risks associated with Asterias continuing to operate as an independent company.

At several times during the second half of 2017 and first half of 2018, Michael Mulroy, the Chief Executive Officer of Asterias (and also a member of the BioTime Board), and Aditya Mohanty, the Co-Chief Executive Officer of BioTime at the time, informally discussed topics related to the industry, financial markets, or their respective businesses, including the possibility of a potential transaction between the two companies. During this same time period, Asterias also had business development discussions with several foreign global companies regarding its OPC1 and VAC programs; however none of these discussions resulted in any third party submitting a proposal with respect to any collaboration or acquisition proposal.

During the second and third fiscal quarters of 2017, Asterias explored opportunities to conduct a capital raise in light of recent positive events associated with its business, including encouraging preliminary data from Asterias' Phase 1/2a study of OPC1 in severe spinal cord injury and the commencement by Cancer Research UK of a Phase 1 clinical trial of Asterias' VAC2 product candidate in non-small cell lung cancer. Notwithstanding these positive business events, Asterias experienced difficulty in raising its desired amount of capital on acceptable terms through an underwritten public offering. On October 18, 2017, Asterias instead closed a registered direct offering to sell 4,000,000 shares of Asterias Common Stock for gross proceeds of approximately \$10.4 million. In light of Asterias' reduced ability to raise funds to operate its business, on November 2, 2017, Asterias reduced its staffing allocated to non-clinical activities to reduce its operating expenses while still continuing to generate clinical data in its clinical stage programs. The reduction in staffing affected approximately thirty employees or one-half of Asterias' workforce. The staffing reduction successfully reduced Asterias' annual cash burn but made it more difficult for Asterias to make progress with respect to certain non-clinical activities. The market price and trading volume of Asterias Common Stock gradually declined during 2018 and as a result, Asterias was unable to raise the same level of funds through its at-the-market sales agreement in 2018 as it did in 2017.

In January 2018, Asterias met with Company A, a global pharmaceutical company at the JP Morgan investor conference, where it expressed interest in potentially pursuing some form of collaboration involving Asterias' spinal cord injury program. Discussions with Company A ensued over the next few months but did not mature to the point where Company A submitted a proposal. Asterias and Company A originally entered into a Mutual Confidentiality and Non-Disclosure Agreement in October 2017 and entered into an amended and restated Mutual Confidentiality and Non-Disclosure Agreement in February 2018 to discuss the potential collaboration. These agreements did not include any standstill or don't ask/don't waive conditions. In March 2018, Company A informed Asterias that it would not be submitting an offer to collaborate with Asterias on the development of the clinical program.

In March 2018, after Company A declined to submit a proposal, Asterias held a regularly-scheduled meeting of its Board of Directors. At this meeting, the Asterias Board discussed potential strategic alternatives as well as key milestones for Asterias as an independent company.

The BioTime Board regularly evaluates the strategic direction and ongoing business plans of BioTime with a view toward strengthening its business as a leader in cell therapy and enhancing shareholder value. As part of this evaluation, the BioTime Board has from time to time considered a variety of strategic alternatives, including, among others, (1) the continuation of their current business plan; (2) potential expansion opportunities into new product lines, and acquisitions and combinations with other businesses; and (3) investment in and development of new products. Following the notice from Company A and in light of BioTime Board's concerns over the performance of Asterias and its difficulty securing financing at attractive rate as well as the potential synergies of the two companies the BioTime Board discussed at its regularly scheduled meeting in March 2018 the possibility of a strategic transaction with Asterias. The BioTime Board instructed management to explore the options and provide feedback to the BioTime Board. The BioTime Board continued to discuss a potential strategic transaction with Asterias at its meetings and received feedback and recommendations from management with respect to the various considerations applicable to such potential transaction.

On April 5, 2018, during a meeting between Mr. Mohanty and Mr. Mulroy, Mr. Mulroy inquired whether BioTime would be willing to make an offer to acquire Asterias. Mr. Mohanty responded that the matter is being considered and he would provide updates when relevant.

On May 14, 2018, Mr. Mohanty informed Mr. Mulroy that BioTime is considering a strategic transaction with Asterias and may submit a letter expressing BioTime's interest in discussing a potential transaction with Asterias.

On May 29, 2018, at the BioTime regularly scheduled meeting, the BioTime Board discussed a potential strategic transaction with Asterias and considered alternatives with respect thereto, with Mr. Mulroy recusing himself for that portion of the meeting. The BioTime Board received a report from management and discussed all relevant considerations, following which the BioTime Board determined to continue to consider a strategic transaction with Asterias. The BioTime Board also approved the creation of the BioTime Special Committee, composed of Deborah

Andrews, Stephen Farrell, and Angus Russell, each determined by the BioTime Board to be an independent board member and disinterested with respect to the potential Asterias transaction, to consider a potential strategic transaction with Asterias and any strategic alternatives thereto. The BioTime Special Committee was delegated exclusive authority to (1) take action with respect to a strategic transaction with Asterias and any alternatives thereto and any evaluation or negotiation thereof, (2) engage independent legal and financial advisors on terms determined by the BioTime Special Committee, (3) make a recommendation to the BioTime Board with respect to any proposed transaction with Asterias or alternatives thereto and (4) evaluate, review and consider other potential strategic alternatives that may be relevant to BioTime. The BioTime Board further instructed management to send a letter of intent to Asterias to indicate BioTime's willingness to consider a strategic transaction and to start the discussion.

Later on May 29, 2018 Messrs. Mohanty and Mulroy had a conversation, during which Mr. Mohanty conveyed to Mr. Mulroy that BioTime may be willing to explore a potential transaction and may submit a letter of intent to that effect.

On May 31, 2018, Mr. Mulroy and Mr. Chavez had a discussion with its counsel at Dentons US LLP ("**Dentons**") about the news that BioTime may submit a letter of intent to Asterias and the proper process for a transaction of this type.

On June 6, 2018, Asterias received a letter from BioTime indicating its desire to discuss a potential strategic transaction with Asterias. In the letter, BioTime stated that it believed that combining its portfolio of cellular and related technologies, assets and expertise would provide a solid foundation to further the development of Asterias' therapeutics programs, and would be in the best interests of both BioTime's shareholders and Asterias' stockholders.

On June 7, 2018, Messrs. Mulroy and Mohanty had a conversation regarding the process and next steps that would have to be taken if the parties were to pursue a strategic transaction.

On June 11, 2018, Mr. Mohanty and Mr. Don Bailey, in Mr. Bailey's capacity as an independent and disinterested member of the Asterias Board, held a telephonic conversation to discuss the BioTime letter. Mr. Bailey acknowledged receipt of the letter and informed Mr. Mohanty that the Asterias Board would discuss the letter at its next meeting. Mr. Bailey requested that Mr. Mohanty consider tax and voting requirements in connection with such potential transaction.

At a regularly scheduled meeting on June 20, 2018, the Asterias Board considered and discussed BioTime's desire to discuss a potential strategic transaction with Asterias as stated in its June 6, 2018 letter. Mr. Mulroy and Ryan D. Chavez, Asterias' Chief Financial Officer and General Counsel, presented to the Asterias Board preliminary considerations and potential benefits and risks relating to a strategic transaction with BioTime. Following discussion, the Asterias Board determined to establish the Asterias Special Committee to evaluate and negotiate such a potential strategic transaction and other strategic alternatives, including remaining as a stand alone company. The Asterias Board decided to form the Asterias Special Committee because the Asterias Board consisted of members that are also on the BioTime Board, such as Messrs. Mulroy and Kingsley, and as at June 20, Mr. Mohanty, and also because establishing the Asterias Special Committee would be efficient. The Asterias Board approved the creation of a the Asterias Special Committee consisting of Messrs. Don Bailey, Steve Cartt, Andy Arno and Natale Ricciardi, each determined by the Asterias Board to be an independent board member and disinterested with respect to BioTime's proposal, to consider the proposal from BioTime and strategic alternative transactions. The Asterias Special Committee was delegated exclusive authority to (1) take action with respect to the BioTime proposal and any alternative transactions with any other parties and any evaluation or negotiation thereof, (2) engage independent legal and financial advisors on terms determined by the Asterias Special Committee, (3) contact third parties regarding the possibility of exploring an alternative transaction, (4) make a recommendation to the Asterias Board with respect to any proposed transaction with BioTime or other third parties and (5) evaluate, review and consider other potential strategic alternatives that may be available to Asterias. The Special Committee was authorized to consider recommending to the Asterias Board that Asterias remain a stand-alone company. The Asterias Board resolved not to recommend or approve any proposed transaction from BioTime or any other third party without the prior favorable recommendation of the Asterias Special Committee. At the Asterias Board meeting, representatives from Dentons gave the Asterias Board a presentation on the fiduciary duties of directors and officers under Delaware law.

Immediately following the June 20, 2018 meeting of the Asterias Board, the newly established Asterias Special Committee held its first meeting. The Asterias Special Committee authorized (i) management of Asterias to initiate discussions with BioTime to facilitate due diligence between Asterias and BioTime, (ii) Dentons to act as counsel for Asterias in connection with the potential transaction after confirming that Dentons had no substantial relationship with

BioTime, and (iii) management to identify a financial advisor to advise the Asterias Special Committee with respect to a potential transaction and to potentially make a recommendation to the Asterias Special Committee.

On June 21, 2018, at a regularly scheduled meeting of the BioTime Board, BioTime's management reviewed for the BioTime various strategic options and led the BioTime Board in discussion regarding BioTime's strategy and options. During the discussion with respect to a potential transaction with Asterias, Mr. Mulroy departed the meeting in light of his relationship with Asterias. As part of this discussion, the BioTime Board discussed the synergies of the combined entities if the transaction were to occur, including reduction of spending on G&A and use of BioTime's effective manufacturing capacity to advance Asterias products. The BioTime Board then instructed management to continue working with the BioTime Special Committee to assess a potential transaction with Asterias and provide a recommendation.

On June 22, 2018, Asterias was removed as a member of the Russell 2000 index. Asterias management felt that removal from the Russell 2000 index would further reduce Asterias' ability to raise capital on acceptable terms.

On June 25, 2018, Asterias and BioTime executed a Mutual Confidentiality and Nondisclosure Agreement to govern the diligence efforts of the parties. Such agreement did not include standstill or “don’t ask/don’t waive” provision.

On June 28, 2018, management from Asterias and BioTime held a meeting to discuss the key clinical programs of both companies and to initiate early diligence discussions.

On July 3, 2018, Mr. Mohanty called Mr. Mulroy to check on the Asterias Board’s view as to a potential transaction. Mr. Mulroy responded that Asterias is following a process to assess the offer and will get to BioTime when ready.

Also on July 3, 2018, Asterias granted BioTime and its representatives access to an electronic data room with preliminary due diligence information regarding Asterias. Between June 28, 2018 and November 4, 2018, representatives of BioTime’s and Asterias’ respective management teams participated in numerous due diligence sessions on BioTime’s and Asterias’ respective businesses, legal, financial, intellectual property and regulatory matters.

On July 6, 2018, the Asterias Special Committee held a meeting. Messrs. Mulroy and Chavez presented the Asterias Special Committee with a summary of the due diligence conducted by Asterias and BioTime. Messrs. Mulroy and Chavez also presented to the Asterias Special Committee Raymond James’ capabilities to act as financial advisor for the Asterias Special Committee in connection with its review of strategic alternatives. Messrs. Mulroy and Chavez disclosed to the Asterias Special Committee that Raymond James had acted as lead underwriter on two prior financings for BioTime in February 2017 and October 2017 and the amount of fees that BioTime paid to Raymond James for its participation in these financings was approximately \$2,932,500. They also discussed how Raymond James stated it did not have any current engagement with BioTime, and Raymond James would agree to act only as financial advisor for the Asterias Special Committee in connection with its review of strategic alternatives. Members of Raymond James, including Stu Barich, then joined the meeting and presented to the Asterias Special Committee. Following this presentation, the members of Raymond James left the meeting and discussion by the Asterias Special Committee ensued. Following discussion, the Asterias Special Committee determined that Raymond James past engagements with BioTime would not present an actual or potential conflict of interest with respect to Raymond James engagement as the Asterias Special Committee’s financial advisor and authorized Asterias management to engage Raymond James as financial advisor for the Asterias Special Committee for the proposed transaction under the terms set forth in an engagement letter previously reviewed by the Asterias Special Committee.

On July 9, 2018, the BioTime Board held a meeting with representatives of Cooley LLP (“Cooley”), legal counsel to BioTime and the BioTime Special Committee, present. Representatives of Cooley reviewed with the BioTime Board certain legal matters, including the BioTime Board’s fiduciary duties in relation to a potential acquisition of Asterias or another similar company.

On July 11, 2018, Mr. Bailey called Mr. Mohanty and informed him that Asterias is engaging in a process to assess the BioTime offer and that diligence can occur at the same time. Mr. Bailey also mentioned that both parties need to consider and assess what are the tax implications of such proposed transaction as well as the necessary voting requirements.

On July 26, 2018, a meeting of the BioTime Special Committee was held. During the meeting management presented to the BioTime Special Committee the results of its analysis of a potential transaction with Asterias. The BioTime Special Committee discussed various considerations with respect to an acquisition of the shares of Asterias common stock not held by BioTime, including the reduction in general and administrative costs, the potential of becoming a leading cell therapy company with two additional cell therapy products, the benefit of using BioTime's current manufacturing expertise to advance Asterias' products, and other benefits of a potential combination. The BioTime Special Committee also discussed other alternatives and opportunities available to BioTime in the cell therapy space that BioTime had considered. The BioTime Committee expressed the view that an acquisition of the remaining shares of Asterias can be more beneficial to the BioTime shareholders than such alternatives and therefore instructed management to continue exploring a potential transaction.

On August 17, 2018, the Asterias Special Committee held a meeting, and invited Mr. Mulroy and Mr. Chavez to provide a summary of discussions that Asterias management had with BioTime management as it relates to operational considerations with respect to a potential transaction between the two companies. The Asterias Special Committee then directed Asterias management to conduct further discussions with BioTime management on the timing of BioTime's offer.

On September 12, 2018, the BioTime Special Committee held a meeting to discuss the potential transaction with Asterias. During the meeting representatives of BioTime's management provided a comprehensive presentation regarding the benefits and disadvantages of acquiring the remaining shares of Asterias, including, the following advantages: additional clinical-stage assets would add optionality and spread portfolio risk, the combined company's portfolio of assets can strengthen market position as a leader in cellular therapy development, Asterias' assets compliments BioTime's lines, the acquisition can allow BioTime to bolster its pipeline, both companies can enjoy the synergies of the assets, capabilities and needs, reposition BioTime for the future and help deliver on the corporate goals of simplification and clinical progress. The presentation also highlighted the risks associated with Asterias' product lines.

On September 17, 2018, BioTime announced that Brain Culley will serve as the new Chief Executive Officer of BioTime. Prior to such announcement Mr. Mohanty told Mr. Mulroy that the new appointment will not impact the process for the transaction and that BioTime is still in the process of evaluating a transaction with Asterias.

On October 4, 2018, the BioTime Special Committee held a meeting to discuss the potential acquisition and the considerations and benefits of such transaction. At the meeting the BioTime Special Committee instructed management to continue exploring and negotiating a transaction with Asterias on the terms provided by the BioTime Special Committee. The BioTime Special Committee further instructed management to provide Asterias a term sheet to indicate Bio Time's willingness to negotiate a deal.

On October 5, 2018, BioTime provided a preliminary non-binding term sheet to Don Bailey, in Mr. Bailey's capacity as a member of the Asterias Special Committee, to express BioTime's desire to discuss a merger transaction with Asterias. In the non-binding term sheet, BioTime proposed to acquire all of Asterias' issued and outstanding shares of Common Stock, subject to the completion of due diligence, at an exchange ratio of 0.52 BioTime Common Shares for each share of Asterias Common Stock, which, given the current trading prices of BioTime and Asterias common stock, offered no premium to the Asterias stockholders. In the non-binding term sheet, BioTime expressed their desire to execute a merger agreement prior to November 12, 2018.

On October 7, 2018, the Asterias Special Committee held a meeting, with Messrs. Mulroy and Chavez and representatives of Dentons and Raymond James in attendance. Representatives from Dentons addressed the Asterias Special Committee and summarized steps and actions that the Asterias Special Committee should consider and potentially take in connection with the receipt of the preliminary non-binding term sheet from BioTime. Representatives from Dentons also summarized for the Asterias Special Committee the fiduciary duties of directors and officers owed to stockholders under Delaware law. The Asterias Special Committee discussed the process for considering the BioTime proposal while exploring other alternatives available to Asterias, including continuing on a stand-alone basis and the potential financing options, the potential benefits of a business combination transaction with BioTime, the risk that BioTime could retract its offer and the impact on stockholder value if Asterias were subsequently required to raise equity. The Asterias Special Committee further discussed customary provisions that are typically negotiated in a transaction of this nature, but were not included in BioTime's term sheet, such as a "majority-of-the-minority" condition, a price "collar" and a "go-shop" provision. The Asterias Board also discussed the need

to seek a more favorable exchange ratio for Asterias stockholders, which included a premium to the current Asterias stock price. At the meeting, Asterias management also identified a number of additional potential strategic counterparties for a business combination transaction with Asterias. The Asterias Special Committee decided to direct Mr. Bailey to contact Angus Russell, Chairman of the Business Strategy Committee of the BioTime Board, to obtain further information about, and discuss the terms of the proposed transaction.

On October 10, 2018, the Asterias Board held a regularly scheduled meeting. In addition to the members of the Asterias Board, representatives from Dentons and Raymond James were also in attendance for certain portions of the meeting. Mr. Mulroy gave a presentation on the status of Asterias' neurology and immunotherapy programs, from both a clinical and a contract manufacturing perspective. Mr. Mulroy also gave the Asterias Board an update on Asterias' financial position. Mr. Mulroy advised the Asterias Board that, among other things, Asterias' auditors may issue a going concern opinion in March 2019 unless additional funding is secured, or there is a significant reduction in operational activities that could have a long-term impact on Asterias. Mr. Mulroy also expressed that the same challenges that negatively impacted Asterias' prior financing discussions remain present. These challenges include sub-optimal financing terms and non-fundamental investors. Following a lunch break, representatives from Raymond James gave a presentation on the overall equity market environment and Asterias' ability to raise additional capital as an independent company. Thereafter, the Special Committee updated the Asterias Board on the progress of the negotiations thus far.

Following the regularly scheduled Asterias Board meeting, the Asterias Special Committee met to continue their discussion from the meeting on October 7, 2018. At this meeting, the Asterias Special Committee agreed that Mr. Bailey would communicate to BioTime a counteroffer that included, among other things, a fixed exchange ratio of 0.78 BioTime Common Shares for every share of Asterias Common Stock, which would be a 30% premium for the Asterias stockholders, calculation of the stock price of the two companies based on a 30-day volume weighted average price, a 25-day “go-shop” provision, a 15% price collar, a provision providing for one or more Asterias Board members to serve on the BioTime Board following the business combination, and further clarity from BioTime on BioTime’s plans for Asterias’ employees following the proposed merger.

Later on October 10, 2018, Mr. Bailey called Mr. Russell and proposed a counteroffer of terms to the proposed transaction as described above. After the telephone call, the BioTime Special Committee met to discuss the counteroffer from Asterias.

On October 11, 2018, the BioTime Special Committee met again to continue its discussion regarding methodologies to price the acquisition and implications therefore. Following discussion the BioTime Special Committee authorized management to continue negotiations with Asterias based on guidelines provided by the BioTime Special Committee, including a 10% premium.

Later on October 11, 2018, Mr. Russell called Mr. Bailey to present the position of BioTime Special Committee on the proposed terms. BioTime agreed to a volume weighted average price formula, and an exchange ratio of 0.64 BioTime Common Shares for every share of Asterias Common Stock, which would be a 10% premium for the Asterias stockholders. In addition, BioTime proposed that Asterias conduct a “market check” prior to signing in light of the lack of exclusivity provision in lieu of the request to include a go-shop provision after signing. Mr. Russell also discussed BioTime’s planned distribution of shares of its wholly-owned subsidiary, AgeX Therapeutics, Inc., (“AgeX”) and that the distribution could impact the exchange ratio. Mr. Russell conveyed that BioTime was not prepared to agree to a price collar provision.

On October 14, 2018, the Asterias Special Committee held a meeting, with Messrs. Mulroy and Chavez and representatives of Dentons and Raymond James in attendance. The Asterias Special Committee discussed various points with respect to BioTime’s revised terms. Thereafter, the Asterias Special Committee agreed that Mr. Bailey should discuss with Mr. Russell certain proposed revisions to terms proposed by Mr. Russell, which included that the valuation of each company’s shares would be based on a 60-day volume weighted average price, an exchange ratio more favorable than the exchange ratio offered by BioTime, which would equate to a 24% premium for Asterias stockholders, inclusion of a 25-day “go-shop”, and inclusion of a requirement for BioTime to agree to vote its Asterias’ shares in favor of the transaction. At this time, the Asterias Special Committee agreed not to continue to pursue a price collar. The Asterias Special Committee felt that BioTime needed to provide more details on how the AgeX distribution would affect the calculation of the exchange ratio. In addition, the Asterias Special Committee asked Mr. Cartt to conduct a due diligence discussion with Mr. Mohanty, a former co-Chief Executive Officer of BioTime and a member of the Asterias Board, in order to obtain additional information relating to BioTime’s clinical programs.

Later on October 14, 2018, Mr. Bailey called Mr. Russell to communicate the Asterias Special Committee's counterproposal. Mr. Russell responded that a 10% premium may be more appropriate and that BioTime would consider the counterproposal.

On October 14, 2018, Mr. Cartt had a telephone call with Mr. Mohanty and reported back to the Asterias Special Committee through electronic mail.

On October 16, 2018, Mr. Mulroy had a telephonic meeting with Mr. Culley to discuss process, diligence and cultural issues relating to the companies.

Further on October 16, 2018, the BioTime Special Committee met to discuss the counter offer from Asterias. The BioTime Special Committee directed Mr. Russell to continue negotiating the transaction with Asterias based on the guidelines provided by the BioTime Special Committee.

On October 17, 2018, Mr. Russell called Mr. Bailey to present the BioTime Special Committee's position with respect to the acquisition terms. BioTime had agreed to many of Asterias' requested terms, but BioTime's rejected Asterias' proposed offer for a 24% premium for Asterias stockholders. BioTime reiterated its offer of a 10% premium for Asterias stockholders.

On October 19, 2018, the Asterias Special Committee held a meeting, with Messrs. Mulroy and Chavez and representatives of Dentons and Raymond James in attendance. The Asterias Special Committee noted that BioTime and Asterias were in agreement with many of the major points, with the material exception of the exchange ratio. The Asterias Special Committee agreed that it would reduce its requested premium of 24%, but would stand firm in asking for an exchange ratio that was more advantageous than the exchange ratio offered by BioTime reflecting 10% premium. After a thorough discussion, the Asterias Special Committee agreed to propose to BioTime a 16.6% premium for Asterias stockholders. The Asterias Special Committee was hopeful that an agreement could eventually be reached, and therefore, instructed Dentons to communicate with Cooley so that the legal teams could start preparing the Merger Agreement.

Later on October 19, 2018, Mr. Bailey called Mr. Russell and communicated this revised offer of the Asterias Special Committee. Further, Mr. Bailey noted that the two parties had not concluded how the potential AgeX dividend might impact this offer. Mr. Bailey further requested that the process be more efficient and progress quicker.

From October 19, 2018 to the execution of the Merger Agreement, Dentons and Cooley worked together in preparing the Merger Agreement while members of the Asterias Special Committee and the BioTime Special Committee continued to negotiate and agree on open issues.

On October 21, 2018, the BioTime Special Committee met to discuss the potential Asterias acquisition. After receiving update on Asterias' counter proposal, the BioTime Special Committee discussed potential considerations in pricing and the acquisition and instructed Mr. Russell to continue negotiations with Asterias on the terms instructed by the BioTime Special Committee.

Later on October 21, 2018, Mr. Russell called Mr. Bailey to convey the proposed terms highlighted by the BioTime Special Committee. Mr. Russell offered a premium of 15%, as opposed to the 16.6% proposed by Asterias. Mr. Bailey communicated the offer to the other members of the Asterias Special Committee via email, and the members of the Asterias Special Committee expressed their views that they could potentially support a deal at a 15% premium. The

issue of AgeX's impact remained an open item.

On October 23, 2018, the BioTime Special Committee met to discuss the potential Asterias acquisition with representatives of Covington & Burling LLP ("**Covington**"), the BioTime Special Committee's additional independent counsel, present for a portion of the meeting. At the meeting, representatives of Covington reviewed for the BioTime Special Committee the fiduciary duties applicable to the members of the BioTime Board. Covington also led the BioTime Special Committee in discussion regarding the alternatives for structuring the transaction and various considerations.

Further on October 23, 2018, Mr. Russell and Mr. Bailey discussed methods for valuation of the AgeX shares and agreed to look into potential third party valuation expert to help in the process.

On October 31, 2018, Mr. Bailey received a call from Mr. Russell. Mr. Russell proposed that the period used to calculate the volume weighted average price for determining the exchange ratio be reduced from 60 days to 30 days.

On November 1, 2018, the BioTime Special Committee met with representatives of Cooley present. At the meeting the BioTime Special Committee received updates as to the negotiation of the transaction and discussed further the various pricing methodologies. The BioTime Special Committee then instructed Mr. Russell to continue negotiating the deal on the terms highlighted by the committee.

On November 2, 2018, Mr. Bailey and Mr. Mulroy met with Brian M. Culley, the recently appointed CEO of BioTime to discuss various issues related to the possible transaction.

Later on November 2, 2018, Mr. Russell called Mr. Bailey to convey that BioTime had not yet finalized a value of the AgeX dividend for purposes of calculating the exchange ratio, and therefore, that BioTime was prepared to offer to increase the premium from 15% to 30%, which would accommodate the value of the AgeX distribution and result in an exchange ratio of 0.71 BioTime Common Shares for each share of Asterias Common Stock, based on using the average of the 30-day and 60-day volume weighted average price of the Asterias Common Stock and the BioTime Common Shares. This proposal assumed that the AgeX shares would be distributed before the deal closes.

On November 4, 2018, the Asterias Special Committee held a meeting with, Messrs. Mulroy and Chavez and representatives of Dentons and Raymond James in attendance to discuss the draft Merger Agreement and the proposal from BioTime which included an offer of an exchange ratio of 0.71 BioTime Common Shares for each share of Asterias Common Stock. At this point, the Asterias Special Committee, after several rounds of negotiation during several weeks, determined that this was the best offer that BioTime would offer, and was proceed to a vote in the next meeting, especially since the proposal would give Asterias the benefit of a go-shop period. The Asterias Special Committee decided to reconvene on November 7, 2018 to vote whether or not to recommend that the Asterias Board approve the Merger Agreement.

On November 7, 2018, the Asterias Special Committee met, with Messrs. Mulroy and Chavez and representatives of Dentons and Raymond James also attending. Mr. Mulroy presented to the Asterias Special Committee an update on Asterias' clinical and preclinical programs and its financial condition. Mr. Mulroy's presentation also covered a summary of the material negotiations with BioTime, how the exchange ratio was derived, reasons for the transaction, risks of the proposed transaction, and a list of potential go-shop parties for the Asterias Special Committee to consider. Representatives from Dentons gave the Asterias Special Committee a summary of its fiduciary duties under Delaware law. Representatives of Dentons next provided an overview of the key terms of the draft Merger Agreement. The Asterias Special Committee discussed the terms of the Merger Agreement with its advisors. Representatives of Raymond James presented to the Asterias Special Committee an overview of the valuation analyses and other factors supporting Raymond James' oral fairness opinion to be delivered later in the meeting. The Asterias Special Committee discussed this analysis. After discussion, representatives of Raymond James delivered their oral opinion, which was subsequently confirmed by delivery of a written opinion to the Asterias Special Committee, dated November 7, 2018, that as of such date, the exchange ratio of 0.71 BioTime Common Shares per share of Asterias Common Stock was fair, from a financial point of view, to the holders of Asterias Common Stock, other than with respect to any shares of Asterias Common Stock held by BioTime, Asterias or their respective wholly-owned subsidiaries. Representatives of Dentons discussed with the Asterias Special Committee draft resolutions to be adopted by the Asterias Special Committee recommending that the Asterias Board approve the Merger Agreement. After discussion, including taking into consideration the fairness opinion provided by Raymond James, the Asterias Special Committee determined to recommend that the Asterias Board approve the Merger Agreement and submit the Merger Agreement to a vote of the Asterias stockholders.

Later on November 7, 2018, the Asterias Board held a special meeting, with representatives of Asterias' management, Dentons and Raymond James in attendance. Representatives from Dentons gave the Asterias Board a summary of its fiduciary duties under Delaware law. Dentons also presented to the Asterias Board a summary of the material terms of the Merger Agreement. Thereafter, representatives of Raymond James presented to the Asterias Board regarding the fairness opinion rendered to the Asterias Special Committee earlier in the day, and its view that the exchange ratio was fair, from a financial point of view, to the holders of Asterias Common Stock, other than with respect to any shares of Asterias Common Stock held by BioTime, Asterias or their respective wholly-owned subsidiaries. The Asterias Board discussed these matters with representatives of Raymond James and the other participants in the meeting. Following this discussion, and based in part on the unanimous recommendation of the Special Committee, the Asterias Board (other than Alfred D. Kingsley and Michael H. Mulroy, who recused themselves from the vote of the Asterias Board): (1) determined that the Merger Agreement, the Merger and the other transactions contemplated by the Merger Agreement were fair to, advisable and in the best interests of Asterias and its stockholders, (2) approved the form, terms, provisions and conditions of the Merger Agreement and the consummation of the Merger and the other transactions contemplated by the Merger Agreement, and (3) resolved to recommend that Asterias stockholders vote for the adoption of the Merger Agreement.

On November 7, 2018, the BioTime Special Committee met, with representatives of Cooley and Maxim also present. Mr. Russell presented to the BioTime Special Committee an update on the negotiations with Asterias, and the previously discussed reasons for the transaction. Representatives of Maxim presented to the BioTime Special Committee an overview of the valuation analysis conducted by Maxim and the methodologies used by Maxim. The Special Committee confirmed its authorization for the use of the projections of Asterias used by Maxim in its analysis. Questions were asked and discussion ensued following which, representatives of Maxim delivered their oral opinion, which was subsequently confirmed by delivery of a written opinion to the BioTime Special Committee, dated November 7, 2018, that as of such date, that the Exchange Ratio was fair, from a financial point of view, to BioTime and the stockholders of BioTime subject to the terms, conditions and limitations highlighted by Maxim. The representatives of Maxim then left the meeting. Representatives from Cooley then reminded the BioTime Special Committee of its fiduciary duties under applicable law as previously communicated to the special committee. Representatives of Cooley next provided an overview of the key terms of the draft Merger Agreement. The BioTime Special Committee then discussed the terms of the Merger Agreement. Representatives of Cooley next discussed with the BioTime Special Committee draft resolutions to be adopted by the BioTime Special Committee recommending that the BioTime Board approve the Merger Agreement and the issuance of the BioTime shares. After discussion, including taking into consideration the fairness opinion provided by Maxim, the Maxim Special Committee determined to recommend that the BioTime Board approve the Merger Agreement and the issuance of shares in the Merger and submit the issuance of the shares in the Merger to a vote of the BioTime shareholders.

Later on November 7, 2018, the BioTime Board held a special meeting, with representatives of Cooley and Maxim in attendance. Mr. Russell updated the BioTime Board of the BioTime Special Committee's meeting and the recommendation of the BioTime Special Committee. Representatives of Maxim then presented to the BioTime Board an overview of the valuation analysis conducted by Maxim and the methodologies used by Maxim and described the fairness opinion rendered to the BioTime Special Committee earlier in the day, and its view that the Exchange Ratio was fair, from a financial point of view, to BioTime and BioTime Shareholders based on the conditions, assumptions and terms described to the BioTime Board. The BioTime Board then asked questions and discussed these matters with representatives of Maxim and the other participants in the meeting. Following this discussion representatives of Maxim left the meeting and representatives of Cooley reminded the BioTime Board of its fiduciary duties as previously discussed with the BioTime Board. Representatives of Cooley also presented to the BioTime Board a summary of the material terms of the Merger Agreement. Thereafter, and based in part on the unanimous recommendation of the BioTime Special Committee, the BioTime Board (with the unanimous vote of the disinterested members of the BioTime Board): (1) determined that the Merger Agreement, the Merger, the issuance of the BioTime Common Shares and the other transactions contemplated by the Merger Agreement were fair to, advisable and in the best interests of BioTime and its shareholders, (2) approved the form, terms, provisions and conditions of the Merger Agreement and the consummation of the Merger and the other transactions contemplated by the Merger Agreement, and (3) resolved to recommend that BioTime shareholders vote for the approval of the issuance of the BioTime shares.

The Merger Agreement was executed by the parties on November 7, 2018.

On November 8, 2018, before the markets opened, BioTime and Asterias announced that they had entered into the Merger Agreement.

Prior to the entry into the Merger Agreement, Asterias, working with its financial advisors, compiled a list of twelve third parties to contact during the “go-shop” period, as permitted by the Merger Agreement, which was the list that Mr. Mulroy presented to the Special Committee on November 7, 2018. This list was comprised of potential third parties that the Asterias senior management believed may be interested in a potential strategic transaction with Asterias and were capable of submitting and consummating a competitive proposal. The list included three companies that had previously engaged in discussions with Asterias with respect to potential collaboration or license agreements, including Company A.

On November 11, 2018 and November 12, 2018, at the direction of Asterias, Raymond James contacted each of the twelve parties to determine if they were interested in engaging in discussions with respect to a potential strategic transaction with Asterias. On November 20, 2018, one of the twelve parties responded to Asterias and indicated that it was not be in a position to submit an alternative proposal at this time.

On November 27, 2018, Raymond James again reached out to nine of the eleven parties that had not responded to the initial outreach to see if they were interested in engaging in discussions with Asterias at this time. Asterias reached out directly to three of the eleven parties (with both Asterias and Raymond James reaching out to one party). Subsequent to November 27, 2018 two of the parties contacted Asterias to indicate that they are not in a position to submit an alternative proposal at this time.

On December 3, 2018, the “go-shop” period expired without any third party making an alternative proposal.

The above description chronology summarizes key events and contacts that led to the signing of the Merger Agreement. It does not purport to describe every conversation among the Asterias Special Committee, the BioTime Special Committee, members of the management of Asterias or BioTime or representatives of the Asterias Special Committee or BioTime Special Committee and other parties with respect to the Merger.

BioTime’s Reasons for the Merger and BioTime Share Issuance; Recommendation of the BioTime Board of Directors

On November 7, 2018, the BioTime Board, with Messrs. Bradsher, Kingsley and Mulroy recusing themselves, (1) determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, are fair to, advisable and in the best interests of BioTime and its shareholders, (2) approved the Merger Agreement and the transactions contemplated thereby and (3) resolved to recommend that BioTime shareholders vote for the approval of the BioTime Share Issuance.

Accordingly, the BioTime Board recommends that BioTime shareholders vote “FOR” the BioTime Share Issuance Proposal and “FOR” the BioTime Adjournment Proposal.

In reaching its decision, the BioTime Board, with Messrs. Bradsher, Kingsley and Mulroy recusing themselves, as described above in the section entitled “—*Background of the Merger*,” held a number of meetings, consulted with BioTime’s senior management and its legal and financial advisors, respectively, and considered a number of factors.

The various factors the BioTime Board considered that weighed positively in favor of the Merger and the BioTime Share Issuance Proposal included, among others and not necessarily in order of relative importance:

its belief that the Combined Company will operate more efficiently to create a premier cell therapy company;

its ability to enjoy new partnerships with notable institutions such as the California Institute for Regenerative Medicine and Cancer Research UK;

its belief that Asterias cell therapy product candidates fit naturally and operationally within BioTime's existing portfolio and would enhance BioTime's shareholders value by diversifying the pipeline of BioTime with two additional clinical-stage assets addressing high unmet medical needs;

its expectation of substantial cost and other financial synergies as well as synergies relating to capabilities and needs as a result of the Merger and its belief that the Combined Company will enjoy other advantages from critical mass, including potentially in connection with financing;

its belief that the Merger can accelerate Asterias product development and commercialization timelines due to Asterias ability to leverage BioTime's unique cell manufacturing expertise at BioTime's GMP facility in Israel and its broad patent position;

its belief that the businesses and corporate cultures of BioTime and Asterias are complementary and the integration of the two companies can be completed in a timely and efficient manner with minimal disruption to employees; and

its expectation that upon completion of the Merger, current BioTime shareholders will continue to own approximately []% of the outstanding BioTime Common Shares.

These expectations and beliefs of the BioTime Board are based in part on the following factors that the BioTime Board considered:

its knowledge and understanding, based on its discussions with BioTime's management, of BioTime's business, operations, financial condition, earnings, strategy and future prospects;

information and discussions with BioTime management, in consultation with representatives of Maxim (as defined below), regarding Asterias' business, operations, financial conditions, earnings, strategy and future prospects, and the results of BioTime's legal, financial and business due diligence review of Asterias;

its thorough deliberation and consideration of the Merger and other alternatives to the Merger;

management's knowledge of the prospective environment in which the Combined Company will operate following the Merger, including industry, economic and market conditions;

the historical and then-current trading prices and volumes of each of the BioTime Common Shares and Asterias Common Stock;

the fact that the terms of the Merger Agreement were the product of arm's-length negotiations between BioTime and its advisors, on the one hand, and Asterias and its advisors, on the other hand, and that Messrs. Bradsher, Kingsley and Mulroy recused themselves from the BioTime Board's vote to approve the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance;

the terms of the Merger Agreement, including:

the fixed Exchange Ratio in the Merger Agreement, which will not be increased or reduced, even in the event of a decrease in the price of BioTime Common Shares or Asterias Common Stock, respectively;

the fact that, as a condition to the completion of the Merger, the BioTime Share Issuance Proposal must be approved by the affirmative vote of the holders of a majority of the total votes of BioTime Common Shares cast in person or by proxy at the BioTime Special Meeting;

the right of BioTime to receive a termination fee of \$2 million if Asterias terminates the Merger Agreement under certain circumstances, or expense reimbursement of up to \$1.5 million under certain circumstances, as more fully described in the section entitled "*The Merger Agreement—Termination Rights in Response to a Superior Proposal; Changes in Board Recommendations*" and "*The Merger Agreement—Expenses and Termination Fees*"; and

the fact that under certain circumstances, the BioTime Board may change its recommendation in response to an Intervening Event with respect to BioTime, as more fully described in the section entitled “*The Merger Agreement—Changes in Board Recommendations.*”

the opinion of Maxim, provided as of November 7, 2018, to the effect that, as of such date, and based on and subject to the various assumptions made, procedures followed, factors considered, and qualifications and limitations described in the opinion, the Exchange Ratio and the merger consideration to be paid by BioTime was fair, from a financial point of view, to BioTime, as more fully described in the section entitled “*The Merger—Opinion of BioTime’s Financial Advisor*”;

Since BioTime already owns approximately 38.9% of Asterias, achieving the benefits associated with combining the companies require a purchase of only the remaining 61.1% of the outstanding shares of Asterias with relatively smaller dilution to the BioTime shareholders, which will own approximately 84% of BioTime following the closing of the Merger.

In addition, the BioTime Board considered a variety of risks and other potentially negative factors concerning the Merger Agreement, the Merger, the BioTime Share Issuance and the other transactions contemplated by the Merger Agreement. These factors included the following, which are not necessarily listed in order of relative importance:

the risk that because the Exchange Ratio in the Merger is fixed, BioTime cannot be certain of the market value of the merger consideration until completion of the Merger;

the possibility that the Merger, the BioTime Share Issuance and other transactions contemplated by the Merger Agreement may not be completed on the terms or timeline currently contemplated or at all, including for reasons beyond the control of BioTime or Asterias;

the risk that failure to complete the Merger, the BioTime Share Issuance and the other transactions contemplated by the Merger Agreement could negatively affect the price of BioTime Common Shares and future business and financial results of BioTime, and could lead to negative perceptions among investors and other stakeholders;

the ownership dilution to current BioTime shareholders as a result of the issuance of BioTime Common Shares to holders of Asterias Common Stock as merger consideration pursuant to the Merger Agreement;

the potential risk of diverting management focus, employee attention and resources from other strategic opportunities and operational matters while working to complete the proposed transactions and successfully integrate BioTime and Asterias;

the costs to be incurred in connection with the Merger, the BioTime Share Issuance and the other transactions contemplated by the Merger Agreement, including the fees and expenses associated with completing such transactions;

the risk that Asterias may be unable to retain key employees;

the risk of not capturing all of the anticipated operational cost savings and synergies, and the risk that other anticipated benefits of the transactions may not be realized on the expected timeframe or at all;

the challenges of combining BioTime with Asterias following the Merger, including technical, financial, operational, accounting and other challenges;

the fact that projections or future results of operations of the Combined Company are necessarily estimates based on assumptions, and not guarantees as to future financial performance as more fully described in the section entitled “*The Merger—Certain BioTime and Asterias Unaudited Prospective Financial Information*”;

the risk that financing may not be available to BioTime, Asterias or, after the consummation of the Merger, the Combined Company, on favorable terms or at all, or, after the consummation of the Merger;

the risk that Asterias may enter into a binding agreement with respect to an alternative Acquisition Proposal, as more fully described in the section entitled “*The Merger Agreement—Asterias Go-Shop*” and “*The Merger Agreement—No Solicitation of Alternative Proposals*”;

the risk that the Asterias Board changes its recommendation in response to a Asterias Superior Proposal under such circumstances as permitted in the Merger Agreement, as more fully described in the section entitled “*The Merger Agreement—Termination Rights in Response to a Superior Proposal; Changes in Board Recommendations*”;

the risk that BioTime may be obligated to pay Asterias a termination fee of \$2 million if the Merger Agreement is terminated under certain circumstances, or reimburse Asterias of its expenses of up to \$1.5 million if the Merger Agreement is terminated under certain other circumstances, as more fully described in the section entitled “*The Merger Agreement—Expenses and Termination Fees*”;

the risk Asterias obligation to pay BioTime to receive a termination fee of \$2 million if Asterias terminates the Merger Agreement under certain circumstances, or reimburse BioTime for its expenses up to \$1.5 million under certain circumstances (as more fully described in the section entitled “*The Merger Agreement—Termination Rights in Response to a Superior Proposal; Changes in Board*”) may not be sufficient to fully compensate BioTime for its losses in such circumstances; and

the risk that the incurrence of additional indebtedness in connection with the Merger would have adverse consequences on BioTime’s business following the Merger.

In addition to considering the factors described above, the BioTime Board considered the fact that some of BioTime’s directors and executive officers have other interests in the Merger that are different from, or in addition to, the interests of BioTime shareholders generally, as more fully described in the section entitled “*The Merger—Interests of BioTime’s Directors and Executive Officers in the Merger.*”

The BioTime Board concluded that the potentially negative factors associated with the Merger Agreement, the Merger, the BioTime Share Issuance, and the other transactions contemplated by the Merger Agreement, were outweighed by the potential benefits that it expected the BioTime shareholders would achieve as a result of entering into the Merger Agreement and consummating the transactions contemplated thereby. Accordingly, the BioTime Board determined that the Merger Agreement and transactions contemplated thereby, including the Merger and the BioTime Share Issuance, were advisable and in the best interests of BioTime and the BioTime shareholders.

The foregoing discussion of the factors considered by the BioTime Board is not intended to be exhaustive, but, rather, includes the material factors considered by the BioTime Board. In reaching its decision to approve the Merger Agreement and transactions contemplated thereby, including the Merger and the BioTime Share Issuance, the BioTime Board did not quantify or assign any relative weights to the factors considered, and individual directors may have given different weights to different factors. The BioTime Board considered all these factors as a whole, including thorough discussions with, and questioning of, BioTime’s management and BioTime’s financial and legal advisors, and overall considered the factors to be favorable to, and to support, its determination.

This explanation of BioTime's reasons for the Merger and other information presented in this section is forward-looking in nature and should be read in light of the sections entitled "*Risk Factors*" and "*Cautionary Statement Regarding Forward-Looking Statements.*"

Opinion of BioTime's Financial Advisor

BioTime has retained Maxim to act as financial adviser to BioTime in connection with the Merger. As part of this engagement, BioTime requested that Maxim evaluate the fairness of the merger consideration to be paid by BioTime pursuant to the Merger Agreement, from a financial point of view, to BioTime. As discussed in the following paragraph, on November 7, 2018, Maxim delivered to the BioTime Board its oral opinion, confirmed by its delivery of a written opinion dated November 7, 2018, that as of the date thereof, and subject to the assumptions, limitations, qualifications and conditions set forth in Maxim's written opinion, the Exchange Ratio and the merger consideration being paid to Asterias stockholders in accordance with the Merger Agreement is fair from a financial point of view to BioTime and its shareholders.

The full text of Maxim's written opinion, dated November 7, 2018, which sets forth, among other things, the assumptions made, procedures followed, matters considered and qualifications and limitations on the scope of review undertaken by Maxim in delivering its opinion, is attached as **Annex B** to this joint proxy statement/prospectus and is incorporated herein by reference in its entirety. The description of Maxim's written opinion set forth in this joint proxy statement/prospectus is qualified in its entirety by the full text of such opinion. Maxim's opinion does not constitute a recommendation to the BioTime Board or to any other persons in respect of the Merger, including as to how any holder of BioTime Common Shares should vote or act with respect to the BioTime Merger and Share Issuance Proposal. We encourage you to read Maxim's opinion carefully and in its entirety.

Maxim's opinion was provided for the information and benefit of the BioTime Special Committee and was delivered to the BioTime Special Committee in connection with their evaluation of whether the merger consideration to be paid by BioTime pursuant to the Merger Agreement is fair, from a financial point of view to BioTime, and did not address any other aspect or implication of the Merger Agreement or the transactions contemplated thereby, including the Merger. Maxim's opinion did not address the relative merits of the Merger as compared to other business or financial strategies that might be available to BioTime, nor did it address the underlying business decision of BioTime to engage in the Merger. Maxim also provided the BioTime Board with a presentation in connection with their evaluation.

Maxim's opinion necessarily was based upon information made available to Maxim as of November 7, 2018 and financial, economic, monetary, market, regulatory and other conditions and circumstances as they existed and as could be evaluated on such date. Maxim has no obligation to update, revise or reaffirm its opinion based on subsequent developments. Maxim's opinion did not express any opinion as to the price at which the BioTime Common Shares will trade at any time.

The following is a summary of Maxim's opinion, and is qualified in its entirety by the full text of such opinion attached as **Annex B** to this joint proxy statement/prospectus. We encourage you to read Maxim's written opinion carefully in its entirety:

In connection with delivering its opinion, Maxim, among other things:

- reviewed certain publicly available filings relating to BioTime and Asterias, including Annual Reports on Form 10-K of BioTime and Asterias; certain interim reports to stockholders and Quarterly Reports on Form 10-Q of BioTime and Asterias;

- reviewed certain business agreements;

- reviewed certain non-public financial analyses and projected cash-based data relating to Asterias under alternative business assumptions that were shared with Maxim by BioTime (and were prepared by Asterias and further revised and adjusted by the BioTime management team, as approved for use by the BioTime Special Committee) (the

“Forecasts used by Maxim”).

reviewed the reported prices and the historical trading activity for BioTime Common Shares and Asterias Common Stock;

compared certain financial and stock market information for BioTime with similar information for certain other companies the securities of which are publicly traded;

compared the premium reflected in the Exchange Ratio with premiums paid in certain other transactions that Maxim deemed relevant;

reviewed the financial terms of certain recently completed strategic transactions, business combinations, and acquisitions within the Biotechnology industry;

reviewed a draft of the Merger Agreement dated November 6, 2018, which Maxim assumed was in substantially final form and from which Maxim assumed the final form would not vary in any respect material to its analysis; and

performed such other analyses and examinations and considered such other factors that Maxim deemed appropriate.

For purposes of its analysis and opinion, Maxim assumed and relied upon, without undertaking any independent verification of, the accuracy and completeness of all of the information publicly available, and all of the information supplied or otherwise made available to, discussed with, or reviewed by Maxim, and Maxim assumes no liability therefor. Maxim was not requested to, and did not, explore alternatives to the merger or solicit interest of any other parties in pursuing transactions with BioTime.

Maxim was not asked to pass upon, and expressed no opinion with respect to, any matter other than the fairness of the merger consideration to be paid by BioTime pursuant to the Merger Agreement, from a financial point of view, to BioTime. Maxim did not express any view on, and its opinion did not address, the fairness of the Merger to, or any consideration received in connection therewith by, the holders of any other securities, creditors or other constituencies of BioTime or Asterias, or as to the fairness of the amount or nature of any compensation to be paid or payable to any of the officers, directors or employees of BioTime or Asterias or any of the other parties to the Merger Agreement or any affiliates thereof, or any class of such persons, whether relative to the merger consideration or otherwise. Maxim assumed that any modification to the structure of the Merger would not vary in any respect material to its analysis. Maxim's opinion did not address the relative merits of the Merger as compared to other business or financial strategies that might be available to BioTime, nor did it address the underlying business decision of BioTime to engage in the Merger. Maxim's opinion does not constitute a recommendation to the BioTime Board, the BioTime Special Committee or to any other persons in respect of the Merger, including as to how any holder of BioTime Common Shares should vote or act in respect of the Merger. Maxim expressed no opinion as to the price at which BioTime Common Shares will trade at any time. Maxim is not a legal, regulatory, accounting or tax expert and assumed the accuracy and completeness of assessments by the management of BioTime and its advisors with respect to legal, regulatory, accounting and tax matters.

Maxim provides a multitude of financial services including investment banking, private wealth management, and global institutional equity, fixed-income and derivatives sales and trading as well as equity research. Maxim and its affiliates, or other related entities or individuals, may at any time purchase, sell, hold or vote long or short positions and investments in securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments of BioTime, and any of their respective affiliates and third parties, or any currency or commodity that may be involved in the Transaction. Maxim will receive a fee of \$375,000 from BioTime for delivering the opinion as well as reimbursement of certain expenses. Maxim's fee will be due in its entirety upon the delivery of the opinion, irrespective of whether the Merger is completed. BioTime has agreed to indemnify Maxim against certain liabilities, and to reimburse it for certain liabilities in connection with Maxim providing the opinion. No controlling person of Maxim is directly personally receiving compensation or other remuneration from any of the parties to the Merger.

In rendering its opinion, Maxim relied upon and assumed, without assuming any responsibility for independent verification, the accuracy and completeness of all the financial, legal, regulatory, tax, accounting and other

documentation and information provided to, discussed with, or reviewed by Maxim and have relied on such information as being complete and accurate in all material respects, including any documentation and information originally produced by BioTime or Asterias and provided by BioTime to Maxim. In that regard, Maxim assumed that the Forecasts used by Maxim have been reasonably prepared on a basis reflecting the best currently available estimates and judgments of the management of BioTime and those financial projections originally produced by Asterias and provided by BioTime to Maxim. Maxim assumed that there were no material changes in the assets, liabilities, financial condition, results of operations, reserves, business operations since the date of the financial statements referenced herein. Moreover, it is understood that the Forecasts used by Maxim are based on numerous variables and assumptions that are inherently uncertain, including without limitation, factors related to general economic, market and competitive conditions. Accordingly, actual results could vary significantly from those set forth in such Forecasts used by Maxim, and as noted previously, Maxim has relied on the Forecasts used by Maxim without independent verification or analyses and does not in any respect assume any responsibility for the accuracy or completeness thereof. Maxim has not made an independent evaluation or appraisal of the assets and liabilities (including any joint ventures, contingent, derivative or other off-balance-sheet assets and liabilities) of BioTime or any of its subsidiaries, Asterias or any of its subsidiaries, joint ventures and Maxim has not been furnished with any such evaluation or appraisal. Maxim has assumed that all governmental, regulatory or other consents and approvals necessary for the consummation of the Merger will be obtained without any adverse effect on the expected benefits of the Merger in any way meaningful to their analysis. Maxim is not an actuary and its services did not include any actuarial determination or evaluation by Maxim or any attempt to evaluate actuarial assumptions, and Maxim has relied on BioTime with respect to the appropriateness and adequacy of reserves of BioTime and actuarial assumptions used by BioTime in connection with the Forecasts used by Maxim. In that regard, Maxim has made no analysis of, and expressed no opinion as to, the appropriateness or adequacy of reserves or actuarial assumptions. Maxim has relied upon assurances by BioTime and Asterias that they are unaware of any facts that would make their respective information incomplete or misleading. Maxim has no obligation to update or modify its opinion.

Maxim was not requested to, and did not, explore alternatives to the Merger or solicit interest of any other parties in pursuing transactions with BioTime.

Maxim's Analysis of Asterias

Maxim performed a series of analyses to derive indicative valuation ranges for Asterias Common Stock.

Comparable Companies Valuation

Maxim compared stock market valuation for selected publicly traded companies that Maxim deemed appropriate with similar information for Asterias. The selected comparable companies considered by Maxim were (collectively "peers"):

Company	Ticker	Exchange
Aduro Biotech Inc	ADRO	NasdaqGS
Aeglea Bio Therapeutics Inc	AGLE	NasdaqGM
Bellicum Pharmaceuticals Inc	BLCM	NasdaqGM
Pluristem Therapeutics Inc	PSTI	NasdaqCM
Mustang Bio Inc	MBIO	NasdaqGM
Brainstorm Cell Therapeutics Inc	BCLI	NasdaqCM
Leap Therapeutics Inc	LPTX	NasdaqGM
Genocea Biosciences Inc	GNCA	NasdaqGM
TRACON Pharmaceuticals Inc	TCON	NasdaqGM
Caladrius Biosciences Inc	CLBS	NasdaqCM
Oncolytics Biotech Inc	ONCY	NasdaqCM
Advaxis Inc	ADXS	NasdaqGS
Capricor Therapeutics Inc	CAPR	NasdaqCM
Histogenics Corp	HSGX	NasdaqCM
Neuralstem Inc	CUR	NasdaqCM

Maxim selected the peer group in the following manner: Maxim first identified comparable companies listed on a national exchange with a market capitalization of under \$500 million in the biotechnology sector. The peer group was then condensed to only include biotechnology companies which operate in similar fields as Asterias, have no approved or marketed drugs, focus on the development of drugs for neurology or oncology indications or that are developing drugs comprised of living cells. The universe of pure-play comparable listed companies is generally very limited due to the intrinsic heterogeneity of development stage drug programs. In an effort to maximize a good level of comparability between Asterias and its peers, the peer companies selected by Maxim were those that Maxim considered to be with the most similarities in their stage of development, total number of unique clinical assets in

development, indication and or are companies whose drugs are comprised of living cells, size, risk and opportunity profiles, and ultimately in their future growth and profitability profiles.

With respect to the peer group, Maxim analyzed the current market valuation of such companies.

Maxim elected to use market capitalization to drive the valuation analysis portion of the comparable companies' valuation analysis due to the stage of Asterias as a pre-revenue biotechnology company, including for the following reasons. First, industry convention tends to use market value as the primary valuation metric for pre-revenue, development stage biotechnology companies. Second, pre-revenue biotechnology companies finance periodically at irregular intervals of irregular dollar amounts corresponding to the capital needs to reach their next clinical milestone(s). Third, determining the actual value of cash across multiple pre-revenue drug development stage companies as cash is only relevant in context as a proxy for future dilution risk. Therefore, evaluating cash on the balance sheet relative to cash required to reach the next clinical milestone is more relevant to accurately evaluate dilution risk.

The analysis of the market capitalization of the peer group yielded an implied equity value of \$95.8 million using the mean of the peer group and an implied equity valuation of \$62.9 million using the median of the peer group.

Discounted Cash Flow Analysis

Maxim performed a discounted cash flow analysis of Asterias to calculate the present value of Asterias based on the sum of the present values of the projected available cash flow streams and the terminal value of the equity using the Forecasts used by Maxim.

In its analysis, Maxim utilized the probability risk adjusted financial projections of Asterias included in the Forecasts used by Maxim, which were provided by BioTime. The Forecasts used by Maxim provided to Maxim included three revenue streams: the first was for Asterias' cancer focused VAC-2 drug program which utilized a 5.1% probability of success rate; the second was the revenue stream of Asterias neurologic focused U.S. OPC-1 program which utilized a 14.2% probability of success rate and lastly a revenue stream of Asterias' Japan OPC-1 program which utilized a 30.1% probability of success rate. BioTime provided Maxim with data from January 1, 2018 through December 31, 2046 for Asterias' OPC-1 drug program in both the U.S. and Japan and data from January 1, 2018 through December 31, 2038 for Asterias' VAC-2 drug program. Maxim has assumed that the financial projections have been reasonably prepared on a basis reflecting the best currently available estimates and judgments of the management of BioTime and those financial projections originally produced by Asterias and modified by BioTime and then provided to Maxim.

The projected values were discounted using a discount rate of 18.8% (equivalent to Asterias' weighted average cost of capital ("WACC")). Maxim determined the intrinsic value assuming a Growth in Perpetuity of 1.0%, as provided by BioTime. In determining the discount rates used in the discounted cash flow analysis, Maxim noted, among other things, factors such as inflation, prevailing market interest rates, and the inherent business risk and rates of return required by investors.

The result of the analysis yielded an intrinsic value of \$216.9 million; after incorporating Asterias' net cash, Maxim arrived at an implied equity value of \$220.4 million.

Precedent Premium Paid Analysis

Maxim performed an analysis of selected transactions to compare premiums paid in such transactions to the premium implied by the Exchange Ratio in the Merger. The selected transactions represented 28 precedent public company transactions that closed between November 5, 2015 and November 5, 2018 in which the target company was a publicly traded healthcare company trading on a major U.S. exchange, where the transaction value was less than \$500 million and a majority stake in the target company was acquired. The precedent deals include transactions in the overall healthcare sector as well as a subset of only biotechnology transactions. Maxim notes that 8 of the 28 transactions analyzed were classified as biotechnology.

Maxim calculated the implied share price premium derived from the share prices directly before the announcements of both the healthcare and subset of biotechnology transactions. Maxim then applied the range of implied premium from the biotechnology transactions to the price of Asterias Common Stock of \$1.18 as of November 6, 2018.

Precedent biotechnology transactions:

Date Closed	Target	Buyer
01/31/2018	Repros Therapeutics Inc. (NasdaqCM:RPRX)	Allergan Sales, LLC
12/11/2017	Ocera Therapeutics, Inc. (NASDAQ:OCRX)	MAK LLC
11/07/2017	Dimension Therapeutics, Inc. (NASDAQ:DMTX)	Ultragenyx Pharmaceutical Inc. (NasdaqGS:RARE)
06/16/2017	GenVec, Inc. (NasdaqCM:GNVC)	Intrexon Corporation (NasdaqGS:XON)
11/29/2016	Aegerion Pharmaceuticals, Inc. (NasdaqGS:AEGR)	Novelion Therapeutics Inc. (NasdaqGS:NVLN)
06/29/2016	Nanosphere, Inc. (NASDAQ:NSPH)	Luminex Corporation (NasdaqGS:LMNX)
05/06/2016	VBI Vaccines Inc (NasdaqCM:VBIV)	SciVac Therapeutics Inc. (TSX:VAC)
02/09/2016	Ocata Therapeutics, Inc. (NasdaqGM:OCAT)	Astellas Pharma Inc. (TSE: 4503)

Precedent healthcare transactions:

Date Closed	Target	Buyer
10/22/2018	Invuity, Inc. (NASDAQ: IVTY)	Stryker Corporation (NYSE:SYK)
08/30/2018	SteadyMed Ltd. (NASDAQ: STDY)	United Therapeutics Corporation (NasdaqGS:UTHR)
08/13/2018	Juniper Pharmaceuticals, Inc. (NASDAQ: JNPR)	Catalent Pharma Solutions, Inc.
04/20/2018	Cogentix Medical, Inc. (NasdaqCM:CGNT)	LM US Parent, Inc.
01/31/2018	Repros Therapeutics Inc. (NasdaqCM:RPRX)	Allergan Sales, LLC
12/27/2017	MGC Diagnostics Corporation (NasdaqCM:MGCD)	Altus Capital Partners
12/11/2017	Ocera Therapeutics, Inc. (NASDAQ:OCRX)	MAK LLC
11/14/2017	CombiMatrix Corporation (NasdaqCM:CBMX)	Invitae Corporation (NYSE:NVTA)
11/07/2017	Dimension Therapeutics, Inc. (NASDAQ:DMTX)	Ultragenyx Pharmaceutical Inc. (NasdaqGS:RARE)
07/31/2017	Nexvet Biopharma Public Ltd Company (NasdaqGM:NVET)	Zoetis Inc. (NYSE:ZTS)
07/24/2017	Innocoll Holdings plc (NasdaqGM:INNLL)	Gurnet Point Capital Limited
07/17/2017	Syneron Medical Ltd. (NasdaqGS:ELOS)	Apax Partners (Israel) Ltd
06/16/2017	Span-America Medical Systems, Inc. (NasdaqGM:SPAN)	Savaria Corporation (TSX:SIS)
06/16/2017	GenVec, Inc. (NasdaqCM:GNVC)	Intrexon Corporation (NasdaqGS:XON)
02/22/2017	Derma Sciences, Inc. (NasdaqCM:DSCI)	Integra LifeSciences Holdings Corp. (NasdaqGS:IART)
11/29/2016	Aegerion Pharmaceuticals, Inc. (NasdaqGS:AEGR)	Novelion Therapeutics Inc. (NasdaqGS:NVLN)
11/21/2016	EndoChoice Holdings, Inc. (NYSE:GI)	Boston Scientific Corporation (NYSE:BSX)
09/30/2016	USMD Holdings, Inc. (NasdaqCM:USMD)	WellMed Medical Management Inc.
09/07/2016	Sequenom Inc. (NasdaqGS:SQNM)	Laboratory Corporation of America Holdings (NYSE:LH)
07/27/2016	Hansen Medical, Inc. (NasdaqGM:HNSN)	Auris Health, Inc.

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07/01/2016	Symmetry Surgical Inc. (NasdaqGM:SSRG)	RoundTable Healthcare Management, LLC
06/29/2016	Nanosphere, Inc. (NASDAQ:NSPH)	Luminex Corporation (NasdaqGS:LMNX)
06/21/2016	Alexza Pharmaceuticals Inc. (NasdaqCM:ALXA)	Grupo Ferrer Internacional, S.A.
05/09/2016	VirtualScopics Inc. (NasdaqCM:VSCP)	BioTelemetry, Inc. (NasdaqGS:BEAT)
05/06/2016	VBI Vaccines Inc (NasdaqCM:VBIV)	SciVac Therapeutics Inc. (TSX:VAC)
02/09/2016	Ocata Therapeutics, Inc. (NasdaqGM:OCAT)	Astellas Pharma Inc. (TSE: 4503)
02/03/2016	TriVascular Technologies, Inc. (Nasdaq:TRIV)	Endologix, Inc. (Nasdaq:ELGX)
12/04/2015	DARA BioSciences, Inc. (NASDAQ: DARA)	Midatech Pharma PLC (AIM: MTPH)

The analysis yielded an implied equity valuation of \$100.6 million using the mean values of the precedent transactions and an implied equity valuation of \$100.3 million using the median values of the precedent transactions.

Research Analyst Price Targets

Maxim reviewed publicly available share price targets of research analysts' estimates known to Maxim as of November 7, 2018 for Asterias. Maxim calculated an implied equity value by multiplying Asterias' fully-diluted shares outstanding by the average and median price target. The price targets published by equity research analysts do not necessarily reflect current market trading prices for Asterias Common Stock and these price targets are subject to numerous uncertainties, including the future financial performance of each company and market conditions.

The result of the analysis yielded an implied equity value of \$415.6 million using the mean values of the analysis and an implied equity value of \$349.4 million using the median values.

Precedent Transactions Analysis

Maxim endeavored to identify a group of precedent transaction comparable to the proposed transaction but due to the limited comparable metrics (no revenue or cash flow, disparate drug indications and stages of development) and relative transaction sizes, Maxim noted that there are no precedent control transactions over the last four years that are relevant for the analysis and as such, Maxim has not included this methodology in its analysis.

Other Factors

BioTime publicly announced on October 25, 2018 distribution of the majority of BioTime's ownership in AgeX. The distribution of the AgeX shares occurred on November 28, 2018 (with record date of November 16, 2018), prior to the closing of the Merger, and therefore, Asterias stockholders will not be entitled to a distribution of AgeX shares. In reaching its opinion Maxim did not discount the value of BioTime Common Shares payable to the Asterias stockholders to account for the fact that they will not be participating in the distribution of AgeX shares. Therefore, for purposes of its opinion, Maxim did not attempt to value the AgeX shares based on the assumption that if the Exchange Ratio is fair to BioTime before discounting the AgeX shares, then it will necessarily be fair to BioTime if the consideration payable to the Asterias stockholders is lower as a result of the AgeX distribution.

While Maxim has not completed a valuation analysis of AgeX or the value of the shares to be distributed, we note the following facts, which were publicly announced by BioTime in press releases dated September 4, 2018 and October 30, 2018: On August 30, 2018 BioTime consummated the sale of 14.4 million shares of AgeX (40.2% of AgeX common shares and 34.4% of fully diluted shares) to Juvenescence for \$43.2 million, which equates to a value per share of \$3.00. The cash consideration of \$21.6 million, or 50% of the purchase price, was paid in two installments. The first installment of \$10.8 million was received by BioTime at the close of the transaction. The second installment was to be paid on November 2, 2018. The remaining 50% of the \$43.2 million consideration, or \$21.6 million, has been paid by Juvenescence in the form of a 2-year convertible promissory note with an annual interest rate of 7%, payable at maturity, if not converted into Juvenescence common stock sooner. Subsequent to the transaction with Juvenescence, BioTime owns 14.416 million shares of AgeX.

BioTime distributed approximately 12.69 million shares to BioTime shareholders on November 28, 2018.

On October 30, 2018 BioTime announced they have been informed that a third party has committed to purchase any and all shares of AgeX from all index funds in Israel at a price of \$2.80 per share, up to a maximum dollar amount of \$2.5 million.

In arriving at its opinion, Maxim did not draw, in isolation, conclusions from or with regard to any factor or analysis considered by it. Rather, Maxim made its determination as to fairness on the basis of its experience and professional judgment after considering the results of all of the analyses. The order of the analyses and reviews described in the summary above and the results thereof do not represent the relative importance or weight given to these analyses and reviews by Maxim. Considering selected portions of the analyses and reviews in the summary set forth above, without considering the analyses and reviews as a whole, could create an incomplete or misleading view of the analyses and reviews underlying Maxim's opinion. Maxim may have considered various assumptions more or less probable than other assumptions, so the range of valuations resulting from any particular analysis or combination of analyses described above should not be taken to represent Maxim's view with respect to the actual value of Asterias Common Stock or BioTime Common Share.

For purposes of its analyses and reviews, Maxim considered industry performance, general business, economic, market and financial conditions and other matters, many of which are beyond the control of Asterias, BioTime and their advisors. No company or business used in Maxim's analyses and reviews as a comparison is identical to Asterias or BioTime, and an evaluation of the results of those analyses and reviews is not entirely mathematical. Rather, the analyses and reviews involve complex considerations and judgments concerning financial and operating characteristics and other factors that could affect the acquisition, public trading or other values of the companies, businesses or transactions used in Maxim's analyses and reviews. The estimates contained in Maxim's analyses and reviews and the ranges of valuations resulting from any particular analysis or review are not necessarily indicative of actual values or predictive of future results or values, which may be significantly more or less favorable than those suggested by Maxim's analyses and reviews. In addition, analyses and reviews relating to the value of companies, businesses or securities do not purport to be appraisals or to reflect the prices at which companies, businesses or securities actually may be sold. Accordingly, the estimates used in, and the results derived from, Maxim's analyses and reviews are inherently subject to substantial uncertainty, and Maxim assumes no responsibility if future results or values are materially different from those forecasted in such estimates.

In the past two years, no material relationship existed between Maxim and its affiliates and BioTime or Asterias pursuant to which compensation was received by Maxim or its affiliates as a result of such a relationship. In the future, Maxim may provide financial advisory or other services to Asterias, BioTime or their respective affiliates, and in connection with any such services Maxim may receive compensation.

With respect to the Merger, Maxim did not recommend any specific merger consideration to the BioTime Board or BioTime management or that any specific consideration constituted the only appropriate consideration in the Merger.

In the ordinary course of business, Maxim or its affiliates may actively trade the securities, or related derivative securities, or financial instruments of BioTime, Asterias and their respective affiliates, for its own account and for the accounts of its customers and, accordingly, may at any time hold a long or short position in such securities or instruments.

Asterias' Reasons for the Merger; Recommendation of the Asterias' Special Committee; Recommendation of the Asterias Board of Directors

Both the Asterias Special Committee and the Asterias Board believe, based on their consideration of the factors described below, that the Merger Agreement and the transactions contemplated thereby, including the Merger, are substantively and procedurally fair, to the Asterias stockholders.

The Asterias Special Committee

On November 7, 2018, the Asterias Special Committee, consisting of independent and disinterested directors of Asterias, and acting with the advice of the Asterias Special Committee's legal and financial advisors, unanimously determined that the Merger Agreement, the Merger and the other transactions contemplated thereby are fair to, advisable and in the best interests of the stockholders of Asterias. The Asterias Special Committee also unanimously recommended that the Asterias Board (1) determine that the Merger Agreement and the Merger are fair to, advisable and in the best interests of Asterias and its stockholders, (2) approve the Merger Agreement and the transactions contemplated thereby and (3) resolve to recommend that Asterias stockholders vote for the approval and adoption of the Merger Agreement and the transactions contemplated thereby, including the Merger.

In reaching its determination and recommendation to the Asterias Board, the Asterias Special Committee, as described above in the section entitled “—*Background of the Merger*,” held a number of meetings, consulted with Asterias’ senior management and its advisors at Dentons and Raymond James and considered a number of factors. The various factors the Asterias Special Committee considered that weighed positively in favor of the Asterias Merger Proposal included, among others and not necessarily in order of relative importance:

the Merger would bring together BioTime’s OpRegen program in age-related macular degeneration and AST’s OPC1 program in spinal cord injury, creating a leading regenerative medicine company aimed at providing breakthrough solutions in areas of high unmet medical need;

together with Asterias’ immunotherapy clinical program in non-small cell lung cancer which is being funded and sponsored by Cancer Research UK, the Combined Company would have three active clinical programs, each with its own future clinical and regulatory milestones and that the potential successful accomplishments of these milestones would provide a greater degree of news flow and opportunity to drive investor interest;

the Combined Company would benefit from an industry leading intellectual property portfolio and experience with all phases of therapeutic product development, with a special emphasis on clinical program execution;

the transaction simplifies the corporate / ownership structure of both companies, eliminating Asterias’ stockholder overhead and fully integrating Asterias’ clinical programs within BioTime’s corporate structuring and that that the Combined Company should also result in significant cost savings, including reduced corporate overhead;

Asterias, as a standalone company, has limited financial resources and access to capital;

the Combined Company is expected to have greater access to capital and lower capital costs (including on potentially more favorable terms) than Asterias on a standalone basis due to its larger size, diversified program portfolio, membership in the Russell 2000 index and listing on both the NYSE American and TASE Exchange in Israel;

as an early stage cell therapy company, Asterias faces the prospect of multiple “tech transfers” to third parties to manufacture cells on a late-stage clinical and commercial scale;

the Combined Company will be a vertically integrated cell therapy company, with strong manufacturing capabilities;

the Combined Company’s management team will draw upon experienced leaders from both companies while Asterias has experienced significant executive management turnover since being formed in late 2013, including at the chief executive officer level, which has included resignations by key executives who have not been replaced, including Asterias’ Chief Scientific Officer and Chief Operating Officer;

the fact that the consideration to be received by Asterias stockholders consists entirely of BioTime Common Shares, which provides Asterias stockholders with reduced volatility and an ownership interest in BioTime following the completion of the Merger, and which represents an opportunity to participate in the potential for earnings per share accretion and potential cost synergies created by the Merger;

the fact that after giving effect to the Merger, the outside shareholders of Asterias who owned approximately 60% of Asterias will own approximately []% of the combined company’s outstanding Common Stock, which would allow

these stockholders to participate in the future growth of the combined company after the consummation of the Merger

Asterias has a long relationship with BioTime, and the Asterias Board has a deep understanding of the operations, financial condition, and prospects, including the information obtained through due diligence; of BioTime;

the risks and challenges faced by Asterias in accomplishing its strategic and business objectives, earnings and prospects, including the financing needs of Asterias' business, general conditions in the biotech industry and other risk factors set forth in Asterias' Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 15, 2018 and its Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2018, filed with the SEC on November 11, 2018, which are incorporated herein by reference;

the benefits of the Merger as compared to the possible alternatives to the Merger (including continuing to operate as a standalone business and a potential equity financing), the timing and likelihood of accomplishing the business plans and strategic objectives of those alternatives, and the potential benefits and risks of those alternatives, including the risks associated with those alternatives in light of industry- and Asterias-specific dynamics and the risk that pursuing other potential alternatives could have resulted in the loss of an opportunity to consummate the contemplated transaction with BioTime;

the oral opinion of Raymond James, which was subsequently confirmed by delivery of a written opinion to the Asterias Special Committee, dated November 7, 2018, that as of such date, the Exchange Ratio was fair, from a financial point of view, to the holders of Asterias Common Stock (other than with respect to any shares of Asterias Common Stock held by BioTime, Asterias or their respective wholly-owned subsidiaries) (see the section entitled "*The Merger—Opinion of Asterias' Financial Advisor*");

the Asterias Special Committee's belief that, as a result of extensive negotiations between the parties and their respective advisors, the implied value of the per share merger consideration of approximately \$1.49 per share (based on an Exchange Ratio of 0.71 and the closing price of BioTime Common Shares on November 7, 2018), was the highest price per share for Asterias Common Stock that BioTime was willing to pay at the time of those negotiations, and that the combination of BioTime's agreement to pay that price and the go-shop process described below and under the section entitled "*The Merger Agreement—Asterias Go-Shop*" would result in a sale of Asterias at the highest price per share for the Asterias Common Stock that was reasonably attainable;

current financial market conditions and historical market prices, volatility and trading information with respect to Asterias Common Stock and BioTime Common Shares;

the historical share prices of Asterias and BioTime, including the fact that the implied per share value of the merger consideration to be received by Asterias stockholders of 0.71 BioTime Common Shares represented (based on the closing price of BioTime Common Shares and Asterias Common Stock on November 7, 2018) a premium of approximately 40.7% based on the unaffected closing price per share of Asterias Common Stock of \$1.06 and BioTime Common Shares of \$2.10 on November 7, 2018;

information and discussions with Asterias' management and advisors regarding BioTime's business, assets, financial condition, results of operations, current business strategy and prospects, including the projected long-term financial results of BioTime; and

the terms of the Merger Agreement, including the fact that the Merger Agreement contains go-shop provisions (as are more fully described under the sections entitled “*The Merger Agreement—Asterias Go-Shop*” and “*The Merger Agreement—No Solicitation of Alternative Proposals*”) intended to enable Asterias to continue to evaluate potential alternatives to the proposed acquisition by BioTime, including:

Asterias’ right, at any time prior on or prior to December 3, 2018, to initiate, solicit and encourage any offers with respect to alternative acquisition proposals, and, until Asterias’ stockholders approve the proposal to adopt the Merger Agreement, to continue discussions, subject to certain conditions, after the Go-Shop Period ends with parties who had made an acquisition proposal during the Go-Shop Period if the Asterias Board or Special Committee determines in good faith that such acquisition proposal constitutes or is reasonably expected to constitute an Asterias Superior Proposal (as defined under “*The Merger Agreement—No Solicitation of Alternative Proposals*”);

the Asterias Board’s ability to withdraw or change its recommendation of the Merger Agreement, and Asterias’ right to terminate the Merger Agreement and accept an Asterias Superior Proposal prior to the approval of Asterias stockholders to adopt the Merger Agreement, subject in each case to Asterias paying BioTime a termination fee of \$2.0 million, including if the termination is in connection with Asterias’ entry into a definitive agreement with an Excluded Party (as defined under “*The Merger Agreement—No Solicitation of Alternative Proposals*”) with respect to an Asterias Superior Proposal, which amounts the Asterias Special Committee believed were reasonable in light of, among other matters, the benefit of the Merger to Asterias’ stockholders, the typical size of such termination fees in similar transactions and the likelihood that a fee of such size would not be a meaningful deterrent to alternative acquisition proposals, as more fully described in the section entitled “*The Merger Agreement—Expenses and Termination Fees*”;

the nature of the closing conditions included in the Merger Agreement, as well as the likelihood of satisfaction of all of the conditions to the completion of the proposed Merger;

the nature of the other representations, warranties and covenants of Asterias in the Merger Agreement;

the right of Asterias to seek to specifically enforce BioTime’s obligations under the Merger Agreement (as more fully described in the section entitled “*The Merger Agreement—Specific Performance*”); and

the fact that, if the Merger Agreement is terminated in connection with Asterias’ entry into a definitive agreement with respect to an Asterias Superior Proposal, BioTime has agreed in the Merger Agreement to vote its shares of Asterias Common Stock in the same proportion in favor of such proposal as the shares of Asterias Common Stock held by unaffiliated stockholders are voted.

The Asterias Special Committee also considered the following factors relating to the procedural safeguards that it believed would ensure the fairness of the Merger and permit the Asterias Special Committee to represent effectively the interests of Asterias’ unaffiliated stockholders:

the fact that the Asterias Special Committee consists of independent and disinterested directors of Asterias who are not affiliated with BioTime, are not employees of Asterias or any of its affiliates and have no financial interest in the Merger different from, or in addition to, the interests of Asterias’ unaffiliated stockholders, other than their interests described under “*The Merger—Interests of Asterias’ Directors and Executive Officers in the Merger*”;

the fact that the Asterias Special Committee was advised by Raymond James, as financial advisor, and by Dentons, as legal advisor, each a nationally recognized firm selected by the Asterias Special Committee, and that, based on disclosures made to the Asterias Special Committee, the Asterias Special Committee concluded that each of Raymond James and Dentons were free of material conflicts and could provide independent advice in connection with the proposed transaction;

the fact that, as part of its review of Asterias' alternatives, the Asterias Special Committee considered the possibility of, and obtained the advice of its financial and legal advisors with respect to, strategic alternatives to the Merger;

the fact that the Asterias Special Committee conducted thorough deliberations regarding the Merger and alternatives to the Merger;

the fact that each of the Asterias Special Committee and the Asterias Board was aware that it had no obligation to recommend any transaction and that the Asterias Special Committee had the authority to reject any proposals made by BioTime or other potential acquirers; and

the fact that the Asterias Special Committee made its evaluation of the Merger Agreement and the Merger based upon the factors discussed in this proxy statement and with the full knowledge of the interests of BioTime in the Merger.

The Asterias Special Committee, in consultation with Asterias' management and its legal and financial advisors, also considered a variety of risks and other potentially negative factors, including the following:

the risk that forecasts of future results of operations and synergies are necessarily estimates based on assumptions and may not be realized – both companies have early stage programs that have significant risk;

the potential expenses and transaction costs related to the Merger, including in connection with any litigation that may result from the announcement or pendency of the Merger;

the risk that because the Exchange Ratio in the Merger consideration is fixed, Asterias cannot be certain of the market value of the merger consideration until completion of the Merger;

the market value of the merger consideration until completion of the Merger;

because Asterias stockholders will be receiving exclusively BioTime Common Shares in the Merger, the risks inherent in owning BioTime Common Shares, including the volatility of BioTime Common Shares, and the other risk factors set forth in BioTime's Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 15, 2018 and the Quarterly Reports on Form 10-Q for the quarterly periods ended March 30, June 30, and September 30 2018, filed with the SEC on May 10, August 2, and Nov 8, 2018, respectively, all of which are incorporated herein by reference;

the fact that there can be no assurance that all conditions to the parties' obligations to complete the Merger will be satisfied;

the potential for diversion of management and employee attention and for increased employee attrition during the period prior to completion of the proposed Merger, and the potential effect of the proposed Merger on Asterias' business and relations with customers, suppliers, financial counterparties and strategic alliance and joint venture partners;

the difficulty inherent in integrating the businesses, assets and workforces of two companies and the risk that anticipated strategic and other benefits to Asterias and BioTime following completion of the proposed Merger will not be realized or will take longer to realize than expected;

the terms of the Merger Agreement, including:

the restrictions on Asterias' ability to solicit alternative transaction proposals following a 25-day post-signing "go-shop" period;

the restrictions on the conduct of Asterias' business prior to completion of the proposed Merger;

the right of the BioTime Board to change its recommendation in favor of the Merger or terminate the Merger Agreement in certain circumstances, as more fully described in the section entitled "*The Merger Agreement—Termination Rights in Response to a Superior Proposal; Changes in Board Recommendations*";

the fact that if the Merger is not completed, Asterias may be required to pay a termination fee in certain circumstances, as more fully described in the section entitled “*The Merger Agreement—Expenses and Termination Fees*”;

if the Merger is not completed for any reason there would likely be a material negative impact on Asterias and its stockholders; and

various other risks associated with the Merger and the business of Asterias and the Combined Company described in the sections entitled “*Risk Factors*” and “*Cautionary Statements Regarding Forward-Looking Statements.*”

The Asterias Special Committee considered all of these factors as a whole, and, on balance, concluded that they supported a determination that the Merger Agreement, the Merger and the transactions contemplated thereby, are fair to, advisable and in the best interests of the stockholders of Asterias. In considering the factors described above and any other factors, individual members of the Asterias Special Committee or the Asterias Board may have viewed factors differently or given different weight or merit to different factors.

The foregoing discussion of the information and factors considered by the Asterias Special Committee is not exhaustive. In view of the wide variety of factors considered by the Asterias Special Committee in connection with its evaluation of the proposed Merger and the complexity of these matters, the Asterias Special Committee did not consider it practical to, nor did it attempt to, quantify, rank or otherwise assign relative weights to the specific factors that it considered in reaching its decision.

The foregoing discussion of the information and factors considered by the Asterias Special Committee is forward-looking in nature. This information should be read in light of the factors set forth in the section entitled “*Cautionary Statement Concerning Forward-Looking Information.*”

Recommendation of the Asterias Board

On November 7, 2018, based in part on the unanimous recommendation of the Asterias Special Committee, as well as on the basis of the other factors described above, the Asterias Board (by unanimous vote of the disinterested members of the Asterias Board, with Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) on behalf of Asterias:

determined that the Merger Agreement and the Merger are advisable and are substantively and procedurally fair to, and in the best interests of, Asterias and its stockholders;

approved the Merger Agreement and the Merger; and

resolved to recommend that Asterias' stockholders vote "FOR" the proposal to adopt the Merger Agreement and approve the Merger.

The Asterias Board recommends (by unanimous vote of the disinterested members of the Asterias Board, with Alfred D. Kingsley and Michael H. Mulroy recusing themselves from the vote) that you vote "FOR" the adoption of the Merger Agreement.

In reaching its determinations, the Asterias Board also considered:

the Asterias Special Committee's analyses, conclusions and unanimous determination, which the Asterias Board adopted, that the terms and conditions of the Merger Agreement, the Merger and the other transactions contemplated thereby are fair to, advisable and in the best interests of the stockholders of Asterias and the Asterias Special Committee's unanimous recommendation that the Asterias Board approve and declare fair to, advisable and in the best interests of the Asterias stockholders of Asterias, the Merger Agreement, the Merger and the other transactions contemplated thereby; and

the oral opinion of Raymond James, the Asterias Special Committee's financial advisor, to the Asterias Special Committee (which was confirmed in writing by delivery of Raymond James' written opinion dated November 7, 2018), to the effect that, as of the date of such opinion, and subject to the assumptions, limitations, qualifications and conditions set forth therein, the Exchange Ratio was fair, from a financial point of view, to the holders of Asterias Common Stock, other than with respect to any shares of Asterias Common Stock held by BioTime, Asterias or their respective wholly-owned subsidiaries. See the section entitled "*The Merger— Opinion of Asterias' Financial Advisor.*"

In considering the recommendation of the Asterias Board to approve the proposal to approve and adopt the Merger Agreement and the Merger, Asterias stockholders should be aware that Asterias' executive officers and directors may have interests in the Merger that are different from, or in addition to, those of Asterias stockholders generally. The Asterias Board and the Asterias Special Committee were aware of these interests during their respective deliberations on the merits of the Merger and in the Asterias Board deciding to recommend that Asterias stockholders vote "FOR" the proposal to approve and adopt the Merger Agreement and the Merger. See the section entitled "*—Interests of Asterias' Directors and Executive Officers in the Merger.*"

Opinion of Asterias' Financial Advisor

At the November 7, 2018, meeting of the Asterias Special Committee, representatives of Raymond James rendered Raymond James's oral opinion, which was also shared with the Asterias Board at the November 7, 2018 meeting of the Asterias Board and subsequently confirmed by delivery of a written opinion to the Special Committee, dated November 7, 2018, to the effect that, as of such date, and based upon and subject to the qualifications, assumptions and other matters considered in connection with the preparation of its opinion, the Exchange Ratio to be received by the holders of shares of Asterias' outstanding common stock (other than with respect to any shares of Asterias Common Stock held by BioTime, Asterias or their respective wholly-owned subsidiaries) in the Merger pursuant to the Merger Agreement was fair to such holders from a financial point of view.

The full text of the written opinion of Raymond James is attached as **Annex C** to this joint proxy statement/prospectus. The summary of the opinion of Raymond James set forth in this joint proxy statement/prospectus is qualified in its entirety by reference to the full text of such written opinion. Holders of Asterias Common Stock are urged to read the opinion in its entirety.

Raymond James provided its opinion for the information of the Asterias Special Committee (solely in its members' capacities as such) in connection with, and for purposes of, its consideration of the Merger, and its opinion only addresses whether the Exchange Ratio to be received by the holders of shares of Asterias Common Stock (other than shares of Asterias Common Stock held by BioTime, Asterias or any of their respective wholly-owned subsidiaries) in the Merger pursuant to the Merger Agreement was fair, from a financial point of view, to such holders. No limitations were imposed by the Asterias Special Committee upon Raymond James with respect to the investigation made or the procedures followed in rendering its opinion. The opinion of Raymond James does not address any other term or aspect of the Merger Agreement or the Merger contemplated thereby. The Raymond James opinion does not constitute

a recommendation to the Asterias Board or to any holder of Asterias Common Stock as to how the Asterias Board, such stockholder or any other person should vote or otherwise act with respect to the Merger or any other matter. Raymond James does not express any opinion as to the likely trading range of BioTime Common Shares following the Merger, which may vary depending on numerous factors that generally impact the price of securities or on the financial condition of BioTime at that time.

In connection with the preparation of its opinion, Raymond James, among other things:

reviewed the financial terms and conditions of the Merger as stated in the draft of the Merger Agreement, dated as of November 6, 2018, which we refer to in this section as the “Draft Agreement”, such draft being the last draft of the Merger Agreement provided to Raymond James;

reviewed certain information related to the historical, current and future operations, financial condition and prospects of Asterias made available to Raymond James by Asterias, including, but not limited to, financial projections for 2019 through 2038 prepared by the management of Asterias, as approved for Raymond James’ use by Asterias which we refer to in this section as the “**Asterias Projections**”;

reviewed certain information related to the historical, current and future operations of BioTime made available to Raymond James by Asterias, including, but not limited to, financial projections for 2019 through 2028 prepared by the management of Asterias, as approved for Raymond James’s use by Asterias which we refer to in this section as the “**BioTime Projections**,” and together with the Asterias Projections, the “**Projections Used By Raymond James**”;

reviewed Asterias’ recent public filings and certain other publicly available information regarding Asterias;

reviewed BioTime’s recent public filings and certain other publicly available information regarding BioTime;

reviewed certain other non-public financial, operating and other information regarding Asterias and BioTime provided to Raymond James by Asterias;

reviewed the financial and operating performance of selected public companies that Raymond James deemed to be relevant;

reviewed the publicly available financial terms of selected transactions that Raymond James deemed to be relevant;

reviewed the current and historical market prices for Asterias Common Stock and BioTime Common Shares, and the current market prices of the publicly traded securities of certain other companies that Raymond James deemed to be relevant;

considered certain discussions and negotiations between representatives of Asterias and BioTime in which Raymond James participated;

conducted such other financial studies, analyses and inquiries, and considered such other factors, as Raymond James deemed appropriate;

discussed with members of the senior management of Asterias certain information relating to the aforementioned and any other matters which Raymond James deemed relevant to its inquiry; and

received a certificate regarding financial statements and projections from the Chief Financial Officer of Asterias as of November 6, 2018.

With the Asterias Special Committee's consent, Raymond James assumed and relied upon the accuracy and completeness of all information supplied by or on behalf of Asterias and BioTime, or otherwise reviewed by or discussed with Raymond James, and Raymond James did not undertake any duty or responsibility to, nor did Raymond James independently, verify any of such information. Raymond James did not make or obtain an independent appraisal of the assets or liabilities (contingent or otherwise) of Asterias or BioTime. With respect to the Projections Used By Raymond James and any other information and data provided to or otherwise reviewed by or discussed with Raymond James, Raymond James, with the Asterias Special Committee's consent, assumed that the Projections Used By Raymond James and such other information and data were reasonably prepared in good faith on bases reflecting the best currently available estimates and judgments of the management of Asterias and BioTime, as applicable, and Raymond James relied upon Asterias to advise Raymond James promptly if any information previously provided became inaccurate or was required to be updated during the period of its review. Raymond James expressed no opinion with respect to the Projections Used By Raymond James or the assumptions on which they were based. Based upon the terms specified in the Draft Agreement, Raymond James assumed that the Merger will qualify as a reorganization under the provisions of Section 368(a) of the Internal Revenue Code. Raymond James relied upon and assumed, without independent verification, that the final form of the Merger Agreement would be substantially similar to the Draft Agreement reviewed by Raymond James in all respects material to its analysis, and that the Merger would be consummated in accordance with the terms of the Merger Agreement without waiver of or amendment to any of the conditions thereto. Furthermore, Raymond James assumed, in all respects material to its analysis, that the representations and warranties of each party contained in the Merger Agreement were true and correct and that each party will perform all of the covenants and agreements required to be performed by it under the Merger Agreement without being waived. Raymond James also relied upon and assumed, without independent verification, that (i) the Merger would be consummated in a manner that complies in all respects with all applicable international, federal and state statutes, rules and regulations, and (ii) all governmental, regulatory or other consents and approvals necessary for the consummation of the Merger would be obtained and that no delay, limitations, restrictions or conditions would be imposed or amendments, modifications or waivers made that would have an effect on the Merger, Asterias or BioTime that would be material to its analysis or opinion.

Raymond James expressed no opinion as to the underlying business decision to effect the Merger, the structure or tax consequences of the Merger, or the availability or advisability of any alternatives to the Merger. The Raymond James opinion is limited to the fairness, from a financial point of view, of the Exchange Ratio to be received by the holders of shares of Asterias Common Stock (other than shares of Asterias Common Stock held by BioTime, Asterias or any of their respective wholly-owned subsidiaries). Raymond James expressed no opinion with respect to any other reasons (legal, business, or otherwise) that may support the decision of the Asterias Board to approve or consummate the Merger. Furthermore, no opinion, counsel or interpretation was intended by Raymond James on matters that require legal, accounting or tax advice. Raymond James assumed that such opinions, counsel or interpretations had been or would be obtained from appropriate professional sources. Furthermore, Raymond James relied, with the consent of the Asterias Special Committee, on the fact that Asterias was assisted by legal, accounting and tax advisors, and, with the consent of the Asterias Special Committee, relied upon and assumed the accuracy and completeness of the assessments by Asterias and its advisors as to all legal, accounting and tax matters with respect to Asterias, BioTime and the Merger.

In formulating its opinion, Raymond James considered only the Exchange Ratio to be received by the holders of shares of Asterias Common Stock (other than shares of Asterias Common Stock held by BioTime, Asterias or any of their respective wholly-owned subsidiaries), and Raymond James did not consider, and its opinion did not address, the

fairness of the amount or nature of any compensation to be paid or payable to any of the officers, directors or employees of Asterias, or class of such persons, in connection with the Merger, whether relative to the Exchange Ratio or otherwise. Raymond James was not requested to opine as to, and it did not express an opinion as to or otherwise address, among other things: (i) the fairness of the Merger to the holders of any class of securities, creditors or other constituencies of Asterias, or to any other party, except to the holders of shares of Asterias Common Stock (other than shares of Asterias Common Stock held by BioTime, Asterias or any of their respective wholly-owned subsidiaries) or (ii) the fairness of the Merger to any one class or group of Asterias' or any other party's security holders or other constituents vis-à-vis any other class or group of Asterias' or such other party's security holders or other constituents (including, without limitation, the allocation of any consideration to be received in the Merger amongst or within such classes or groups of security holders or other constituents). Raymond James expressed no opinion as to the impact of the Merger on the solvency or viability of Asterias or BioTime or the ability of Asterias or BioTime to pay their respective obligations when they come due.

Material Financial Analyses

The following summarizes the material financial analyses conducted by Raymond James and reviewed with the Asterias Special Committee and the Asterias Board at its meetings on November 7, 2018. No company or transaction used in the analyses described below is identical or directly comparable to Asterias, BioTime or the contemplated Merger.

Selected Companies Analysis of Asterias. Raymond James analyzed the equity values of the following six publicly-traded biotechnology companies with a focus on early-stage oncology and/or spinal cord injury (the “Asterias Selected Companies”):

Affimed N.V.

OncoSec Medical Incorporated

Oncolytics Biotech Inc.

Neuralstem, Inc.

Advaxis, Inc.

Invivo Therapeutics Holdings Corp.

Raymond James reviewed the mean, median, 25th percentile and 75th percentile of equity values of the Asterias Selected Companies to derive a range of potential values for Asterias. The results of the Asterias Selected Companies analysis are summarized below:

Asterias Selected Companies				
Equity Value as of 11/02/18				
(\$ in millions)				
	<i>25th</i>	<i>Median</i>	<i>Mean</i>	<i>75th</i>
	<i>Percentile</i>			<i>Percentile</i>
Equity Value	\$21.7	\$ 43.1	\$79.9	\$ 95.3

Selected Companies Analysis of BioTime. Raymond James analyzed the equity values of the following seven publicly-traded clinical-stage biotechnology companies with a focus on regenerative medicine therapy (the “BioTime Selected Companies”):

Mesoblast Limited

Athersys, Inc.

Celyad SA

Pluristem Therapeutics Inc.

Bellicum Pharmaceuticals, Inc.

Ophthotech Corporation

Capricor Therapeutics, Inc.

Raymond James reviewed the mean, median, 25th percentile and 75th percentile of equity values of the BioTime Selected Companies to derive a range of potential values for BioTime. The results of the BioTime Selected Companies analysis are summarized below:

BioTime Selected Companies				
Equity Value as of 11/02/18				
(\$ in millions)				
	<i>25th</i>	Median	Mean	<i>75th</i>
	<i>Percentile</i>			<i>Percentile</i>
Equity Value	\$113.7	\$198.1	\$298.3	\$ 287.6

Raymond James used the ranges of equity values for Asterias and BioTime to calculate the implied share price and implied exchange ratio that would be attributable to the holders of shares of Asterias Common Stock. The implied share price calculations were based on Asterias' fully diluted shares outstanding of 56,243,810 and BioTime's fully diluted shares outstanding of 127,588,607. Raymond James then compared these implied exchange ratios to the Exchange Ratio implied by the Merger. The results of this analysis are summarized below:

Asterias and BioTime Implied Share Priced from

Selected Companies Analysis as of 11/02/18 (\$)

	<i>25th Percentile</i>	Median	Mean	<i>75th Percentile</i>
Asterias Implied Share Price	\$0.39	\$ 0.77	\$1.42	\$ 1.69
BioTime Implied Share Price	\$0.89	\$ 1.55	\$2.34	\$ 2.25

	Implied Exchange Ratio as of 11/02/18	
	Minimum	Maximum
Implied Exchange Ratio	0.17	1.90

Raymond James noted that the Exchange Ratio implied by the Merger was within the range of exchange ratios implied by this analysis.

Selected Transaction Analysis - Asterias. Raymond James analyzed publicly available information relating to selected acquisition transactions consummated during the period from January 1, 2017 to November 7, 2018, in which the buyer acquired an ownership stake greater than 49% and in which the target was an early to mid-stage biotechnology company based in the U.S. (the "**Asterias Selected Transactions**"). For each transaction, Raymond James reviewed the total transaction value excluding any contingent value rights ("**CVRs**"). The Asterias Selected Transactions used in the analysis included:

Date Announced	Target	Buyer
10/09/2018	Vector Neurosciences Inc.	MeiraGTx Holdings plc
09/20/2018	Celenex, Inc.	Amicus Therapeutics, Inc.
09/14/2018	Bonti, Inc.	Allergan plc
12/12/2017	Repros Therapeutics Inc.	Allergan plc
11/02/2017	Ocera Therapeutics, Inc.	Mallinckrodt plc

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09/18/2017 Dimension Therapeutics, Inc. Ultragenyx Pharmaceutical Inc.
06/27/2017 Altor BioScience Corporation NantCell, Inc.
01/24/2017 GenVec, Inc. Intrexon Corporation

Raymond James reviewed the mean, median, 25th percentile and the 75th percentile of the transaction values to derive a range of potential values for Asterias. The results of the Asterias Selected Transactions analysis are summarized below:

Asterias Selected Transactions

Transaction Value as of

11/02/18

(\$ in millions)

25th

Median

Mean

75th

Percentile

Percentile

Transaction Value	\$23.6	\$ 69.3	\$78.6	\$ 112.8
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Selected Transaction Analysis - BioTime. Raymond James analyzed publicly available information relating to selected acquisition transaction consummated during the period from January 1, 2017 to November 7, 2018, in which the buyer acquired an ownership stake greater than 49% and in which the target was an early to mid-stage biotechnology company based in the U.S. (the “**BioTime Selected Transactions**”). For each transaction, Raymond James reviewed the total transaction value excluding any CVRs. The BioTime Selected Transactions used in the analysis included:

Date	Target	Buyer
Announced		
10/09/2018	Vector Neurosciences Inc.	MeiraGTx Holdings plc
09/26/2018	Syntimmune, Inc.	Alexion Pharmaceuticals, Inc.
09/20/2018	Celenex, Inc.	Amicus Therapeutics, Inc.
09/14/2018	Bonti, Inc.	Allergan plc
01/31/2018	Cascadian Therapeutics, Inc.	Seattle Genetics, Inc.
12/12/2017	Repros Therapeutics Inc.	Allergan plc
11/02/2017	Ocera Therapeutics, Inc.	Mallinckrodt plc
09/18/2017	Dimension Therapeutics, Inc.	Ultragenyx Pharmaceutical Inc.
06/27/2017	Altor BioScience Corporation	NantCell, Inc.
05/23/2017	True North Therapeutics, Inc.	Bioverativ Inc.
01/24/2017	GenVec, Inc.	Intrexon Corporation

Raymond James reviewed the mean, median, 25th percentile and the 75th percentile of the transaction values to derive a range of potential values for BioTime. The results of the BioTime Selected Transactions analysis are summarized below:

**BioTime Selected Transactions
Transaction Value as of 11/02/18**

	(\$ in millions)			
	25th Percentile	Median	Mean	75th Percentile
Transaction Value	\$34.3	\$100.0	\$186.6	\$297.5

Raymond James used this range of transaction values for Asterias and BioTime to calculate the implied share price and implied exchange ratio that would be attributable to the holders of shares of Asterias Common Stock. The implied share price calculations were based on Asterias’ fully diluted shares outstanding of 56,243,810 and BioTime’s fully diluted shares outstanding of 127,588,607. Raymond James then compared these implied exchange ratios to the Exchange Ratio implied by the Merger. The results of this analysis are summarized below:

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	Asterias and BioTime Implied Share Prices from Selected Transactions Analysis as of 11/02/18 (\$)			
	25th Percentile	Median	Mean	75th Percentile
Asterias Implied Share Price	\$0.42	\$ 1.23	\$1.40	\$ 2.01
BioTime Implied Share Price	0.27	0.78	1.46	2.33

	Implied Exchange Ratio as of 11/02/18 MinimumMaximum	
Implied Exchange Ratio	0.18	7.47

Raymond James noted that the Exchange Ratio implied by the Merger was within the range of exchange ratios implied by this analysis.

Discounted Cash Flow Analysis of Asterias. Raymond James estimated a range of equity values for Asterias based upon the present value of Asterias' estimated unlevered free cash flows, defined as earnings before interest, taxes, depreciation and amortization (EBITDA) less provisions for taxes plus tax shield from net operating losses carryforward, for fiscal years ended December 31, 2019, through December 31, 2038, in each case with risk adjustments as provided by Asterias' management and approved for Raymond James's use by the Asterias Special Committee. In performing this discounted cash flow analysis, Raymond James utilized discount rates ranging from 16.9% to 18.9%, which were selected based on the capital asset pricing model and the estimated weighted average cost of capital of the Asterias Selected Companies. This discounted cash flow analysis assumed that Asterias has no terminal value. This discounted cash flow analysis was based upon certain assumptions regarding the Projections Used By Raymond James described below in the section of this joint proxy statement/prospectus entitled "*The Merger—Certain Asterias and BioTime Unaudited Prospective Financial Information*," and discussions held with the management of Asterias.

Raymond James reviewed the range of implied equity values resulting from the discounted cash flow analysis to derive a range of illustrative equity values for Asterias. The results of the discounted cash flow analysis are summarized below:

	Asterias Implied Equity Value as of 11/02/18	
	(\$ in millions)	
	Minimum	Maximum
Implied Equity Value	\$55.1	\$ 77.9

Discounted Cash Flow Analysis of BioTime. Raymond James estimated a range of equity values for BioTime based upon the present value of BioTime’s estimated unlevered free cash flows for fiscal years ended December 31, 2019 through December 31, 2028, in each case with risk adjustments as provided by Asterias and approved for Raymond James’ use by the Special Committee. In performing this discounted cash flow analysis, Raymond James utilized discount rates ranging from 16.0% to 18.0%, which were selected based on the capital asset pricing model and the estimated weighted average cost of capital of the BioTime Selected Companies. This discounted cash flow analysis assumed that BioTime has no terminal value. This discounted cash flow analysis was based upon certain assumptions regarding the Projections Used By Raymond James described below in the section of this joint proxy statement/prospectus entitled “*The Merger– Certain Asterias and BioTime Unaudited Prospective Financial Information,*” and discussions held with the management of Asterias.

Raymond James reviewed the range of implied equity values resulting from the discounted cash flow analysis to derive a range of illustrative equity values for BioTime. The results of the discounted cash flow analysis are summarized below:

	BioTime Implied Equity Value as of 11/02/18	
	(\$ in millions)	
	Minimum	Maximum
Implied Equity Value	\$196.0	\$ 242.9

Raymond James reviewed the range of implied equity values resulting from these discounted cash flow analyses to derive a range of potential values for Asterias and BioTime. Raymond James then used the ranges of potential values for Asterias and BioTime to calculate the implied share price and implied exchange ratio that would be attributable to the holders of shares of Asterias Common Stock. The implied share price calculations were based on Asterias’ fully diluted shares outstanding of 56,243,810 and BioTime’s fully diluted shares outstanding of 127,588,607. Raymond

James then compared these implied exchange ratios to the Exchange Ratio implied by the Merger. The results of this analysis are summarized below:

	Asterias and BioTime Implied Share Prices from DCF Analysis as of 11/02/18 (\$)	
	Minimum	Maximum
Asterias Implied Share Price	\$0.98	1.38
BioTime Implied Share Price	1.54	1.90
	Implied Exchange Ratio as of 11/02/18	
	Minimum	Maximum
Implied Exchange Ratio	0.51	0.90

sold, and such estimates are inherently subject to uncertainty. The opinion of Raymond James was one of many factors taken into account by the Asterias Board in making its determination to approve the Merger. Neither Raymond James's opinion nor the analyses described above should be viewed as determinative of the Asterias Board's or Asterias management's views with respect to Asterias, BioTime or the Merger. Raymond James provided advice to Asterias with respect to the proposed Merger. Raymond James did not, however, recommend any specific amount of consideration to the Asterias Board or that any specific exchange ratio constituted the only appropriate consideration for the Merger. The Asterias Special Committee placed no limits on the scope of the analysis performed, or opinion expressed, by Raymond James.

The Raymond James opinion was necessarily based upon market, economic, financial and other circumstances and conditions existing and disclosed to it on November 2, 2018, and any material change in such circumstances and conditions may affect the opinion of Raymond James, but Raymond James does not have any obligation to update, revise or reaffirm its opinion. Raymond James relied upon and assumed, without independent verification, that there had been no change in the business, assets, liabilities, financial condition, results of operations, cash flows or prospects of Asterias or BioTime since the respective dates of the most recent financial statements and other information, financial or otherwise, provided to Raymond James that would be material to its analyses or its opinion, and that there was no information or any facts that would make any of the information reviewed by Raymond James incomplete or misleading in any material respect.

During the two years preceding the date of Raymond James's written opinion, Raymond James has not received any compensation from Asterias for any engagement or services performed. There are no material relationships that existed during the two years prior to the date of the opinion or are mutually understood to be contemplated in which any compensation was received or is intended to be received as a result of the relationship between Raymond James and Asterias. Raymond James has provided certain services to BioTime in the past two years unrelated to the Merger as the sole book-running manager for two public offerings of BioTime Common Shares in February 2017 and October 2017. Raymond James received compensation amounting to approximately \$2,932,500 in connection with those services.

For services rendered in connection with the delivery of its opinion, Asterias paid Raymond James a fee upon delivery of its opinion (the "**Opinion Fee**") in the amount of \$500,000. Asterias will also pay Raymond James a fee for advisory services in connection with the Merger, which is contingent upon the closing of the Merger (the "**Transaction Fee**"), in the amount equal to 1.35% of any transaction value paid, payable or received in the Merger. Regardless of the transaction value, the minimum total fee is \$1,000,000. Asterias also agreed to reimburse Raymond James for its expenses incurred in connection with its services, including the fees and expenses of its counsel, and will indemnify Raymond James against certain liabilities arising out of its engagement.

The delivery of Raymond James' opinion was approved by an opinion committee of Raymond James.

Raymond James is actively involved in the investment banking business and regularly undertakes the valuation of securities in connection with public offerings, private placements, business combinations and similar transactions. In the ordinary course of business, Raymond James may trade in the securities of Asterias and BioTime for its own account and for the accounts of its customers and, accordingly, may at any time hold a long or short position in such securities. Raymond James may provide investment banking, financial advisory and other financial services to Asterias, BioTime or other participants in the Merger in the future, for which Raymond James may receive compensation.

Certain BioTime and Asterias Unaudited Prospective Financial Information

Neither BioTime nor Asterias, as a matter of course, publicly discloses forecasts or internal projections as to future performance, earnings or other results due to, among other reasons, the uncertainties of the new drug development, approval and commercialization processes, as well as other uncertainties associated with underlying assumptions and estimates.

As described above, in connection with Raymond James' evaluation of the fairness of the merger consideration from a financial point of view to the holders of Asterias Common Stock (other than shares of Asterias Common Stock held

by BioTime, Asterias or any of their respective wholly-owned subsidiaries), Raymond James, among other things, was provided by Asterias with the Projections Used By Raymond James, which were approved for Raymond James' use by Asterias. The Projections Used By Raymond James included: (i) certain assumptions and financial estimates regarding the future operations of Asterias, which were prepared by Asterias; and (ii) certain assumptions and financial estimates regarding the future operations of BioTime, which were prepared by Asterias management based on public financial estimates prepared independently without input from BioTime and approved for Raymond James' use by Asterias. Such projections with respect to BioTime were not internally prepared, reviewed or adopted by the BioTime management and the information in such projections was prepared by independent analysts not affiliated with BioTime, at the time and based on assumptions that may not be accurate, and for purposes unrelated to the management of BioTime's business or the Merger.

The inclusion of any unaudited financial projections or assumptions underlying such information, including the Projections Used By Raymond James or a description of their use in connection with Raymond James' evaluation of the fairness of the merger consideration from a financial point of view to the holders of Asterias Common Stock (other than shares of Asterias Common Stock held by BioTime, Asterias or any of their respective wholly-owned subsidiaries) in this joint proxy statement/prospectus, however, should not be regarded as an indication that BioTime, Asterias, the BioTime Board, the Asterias Board, the Asterias Special Committee or the BioTime Special Committee or any other recipient of this information considered, or now considers, the Projections Used By Raymond James to be predictive of actual future results.

As further described above, certain assumptions and financial estimates relating to Asterias were also provided to Maxim and approved by BioTime for use by Maxim in connection with its evaluation of the fairness of the Exchange Ratio and the merger consideration from a financial point of view to BioTime and the shareholders of BioTime (such financial estimates are referred to as the “Forecasts used by Maxim”). The Forecasts used by Maxim were prepared based on information received by BioTime from Asterias and modified by BioTime management, as described in the section entitled “—*Opinion of BioTime’s Financial Advisor.*” The inclusion of any unaudited financial projections or assumptions underlying such information, including the Forecasts used by Maxim or a description of their use in connection with Maxim’s evaluation of the fairness of the Exchange Ratio and the merger consideration from a financial point of view to BioTime and BioTime shareholders in this prospectus, however, should not be regarded as an indication that BioTime, Asterias, the BioTime Board, the Asterias Board, the Asterias Special Committee or the BioTime Special Committee or any other recipient of this information considered, or now considers, the Forecasts used by Maxim to be predictive of actual future results.

You should not place undue reliance on the unaudited financial projections contained in this joint proxy statement/prospectus.

The Projections Used By Raymond James and the Forecasts used by Maxim are being included in this joint proxy statement/prospectus in accordance with subsection (a)(6) of Item 1015 of Regulation M-A because they constitute part of the bases of the analysis conducted by Raymond James and by Maxim as described herein, in connection with delivering their respective opinions described under the section entitled “—*Opinion of BioTime’s Financial Advisor*” and “—*Opinion of Financial Advisor to the Asterias Special Committee.*”

The Projections Used By Raymond James and the Forecasts used by Maxim are subjective in many respects and thus subject to interpretation. While presented with numeric specificity, the Projections Used By Raymond James and the Forecasts used by Maxim reflect numerous estimates and assumptions that are inherently uncertain with respect to general business, economic, market and financial conditions and matters specific to Asterias or BioTime, including the revenues to be received following FDA approval, the likelihood of receiving FDA approval, and the other factors described or referenced under the section entitled “*Cautionary Statement Regarding Forward-Looking Statements*” and under the section entitled “*Risk Factors,*” all of which are difficult to predict and many of which are beyond Asterias’ or BioTime’s control. Neither Asterias nor BioTime can provide any assurance that the assumptions underlying the Projections Used By Raymond James or the Forecasts used by Maxim are or were reasonable. Many of the assumptions reflected in the Projections Used By Raymond James and the Forecasts used by Maxim are subject to change and none of the Projections Used By Raymond James or the Forecasts used by Maxim reflect revised prospects for Asterias or BioTime business, changes in general business or economic conditions or any other transactions or event that has occurred or that may occur and that was not anticipated at the time such financial information was prepared. The Projections Used By Raymond James and the Forecasts used by Maxim cover multiple years and such information by its nature becomes less predictive with each succeeding year. Neither Asterias nor BioTime assume any obligation, nor does any of them intend, to update or otherwise revise the Projections Used By Raymond James or the Forecasts used by Maxim. There can be no assurance that the results reflected in any of the Projections Used By Raymond James or the Forecasts used by Maxim will be realized or that actual results will not materially vary from the Projections Used By Raymond James and the Forecasts used by Maxim. Therefore, the inclusion of the Projections Used By Raymond James and the Forecasts used by Maxim in this prospectus should not

be relied on as predictive of actual future events nor construed as financial guidance.

Although presented with numerical specificity, the Projections Used By Raymond James and the Forecasts used by Maxim were prepared in the context of numerous variables, estimates and assumptions that are inherently uncertain and beyond BioTime or Asterias' control and which may prove not to have been, or to no longer be, accurate. Important factors that may affect actual results and cause these Projections Used By Raymond James or the Forecasts used by Maxim to not be achieved include, but are not limited to, risks and uncertainties relating to Asterias' business (including its ability to achieve strategic goals, objectives and targets over the applicable periods, and obtain regulatory approval of Asterias' product candidates), industry performance, the regulatory environment, general business and economic conditions and other factors. In addition, the Projections Used By Raymond James and the Forecasts used by Maxim also reflect assumptions that are subject to change and do not reflect revised prospects for Asterias' business, changes in general business or economic conditions or any other transaction or event that has occurred or that may occur and that was not anticipated at the time the Projections Used By Raymond James and the Forecasts used by Maxim were prepared. Accordingly, there can be no assurance that these Projections Used By Raymond James or the Forecasts used by Maxim will be realized or that future financial results will not materially vary from these Projections Used By Raymond James and the Forecasts used by Maxim.

The Projections Used By Raymond James and the Forecasts used by Maxim are forward-looking statements. For information on factors that may cause these future financial results to materially vary, see the section entitled "*Cautionary Statement Concerning Forward-Looking Statements.*"

The Projections Used By Raymond James and the Forecasts used by Maxim were prepared for internal use, and were not prepared with a view toward public disclosure, or with a view toward compliance with published guidelines of the SEC regarding projections, the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information, or GAAP. Neither Asterias' nor BioTime's independent registered public accounting firm, nor any other independent accountants, have compiled, examined or performed any procedures with respect to the prospective financial information included below, or expressed any opinion or any other form of assurance with respect thereto or the achievability of the results reflected in such projections, and none of the foregoing assumes any responsibility for such information.

For the reasons described above, readers of this joint proxy statement/prospectus are cautioned not to rely on the Projections Used By Raymond James or the Forecasts used by Maxim as predictive of actual future events. Neither Asterias nor BioTime has made, in the Merger Agreement or otherwise, any representation to the other party, or to any other person, concerning any of the Projections Used By Raymond James or the Forecasts used by Maxim.

The summaries of the Projections Used By Raymond James and the Forecasts used by Maxim are not included in this joint proxy statement/prospectus in order to induce any BioTime shareholder or Asterias stockholder to vote in favor of the Merger or any of the other proposals to be voted on at either the BioTime Special Meeting or the Asterias Special Meeting.

The following tables present, subject to the foregoing, a summary of the Projections Used By Raymond James and the Forecasts used by Maxim:

Projections Used By Raymond James With Respect to the Future Operations of Asterias

The portion of the Projections Used By Raymond James with respect to the future operations of Asterias was prepared by Asterias management and relies on numerous estimates and assumptions including, among others:

Clinical development – The model assumed clinical development of OPC1 in severe spinal cord injury and of VAC2 in non-small cell lung cancer. The model assumed OPC1 receives approval to treat AIS-A, AIS-B, or AIS-C patients with C-5 to C-7 spinal cord injuries in the United States in 2026 and in Japan and Europe in 2028. For VAC2, the model assumed VAC2 receives approval to treat patients with non-small cell lung cancer in the United States in 2027 and China and certain parts of Europe in 2028. For OPC1, the model assumed an 18.8% cumulative probability success from Phase 2 to commercialization. For VAC2, the model assumed a 12.5% cumulative probability of success from Phase 1 to commercialization.

Clinical trial and process development costs – For OPC1, the model assumed confirmatory phase 2 clinical trial costs at \$25 million and process development costs of approximately \$12 million during phase 2 and pivotal trial costs at \$30 million, process development costs of approximately \$12 million, and product manufacturing costs of approximately \$12 million during phase 3. For VAC2, the model assumed confirmatory phase 2 clinical trial, process development and product manufacturing costs during phase 2 of approximately \$30 million and pivotal trial, process development costs and product manufacturing costs during phase 3 of approximately \$48 million.

Addressable population and penetration – For OPC1, the maximum addressable population of patients (those patients who could possibly benefit from a therapy) was set at 80% due to limited competition in this indication and occurred in the fifth year following commercialization. For VAC2, the maximum addressable population of patients was set at a much lower 15% due to the competitive landscape in non-small cell lung cancer.

Pricing and costs of goods sold (COGS) – For OPC1, a product candidate that has received orphan designation status in the United States, the model assumed a sale price of \$250,000 per patient in the United States and Japan and a sale price of \$125,000 per patient in Europe, offset by rebates of 10% and royalty payments to certain third parties. The OPC1 model also assumed a COGS rate of 20%. For VAC2, the model assumed a sale price of \$150,000 per course of therapy in the United States and China and a sale price of \$100,000 per course of therapy in Europe, offset by rebates of 10% and royalty payments to certain third parties. The VAC2 model also assumed a COGS rate of 20%.

Post-marketing R&D Costs – The model assumed a greater of (i) \$10 million per year or (ii) 5% of sales of post-commercial research and development or process development work. These costs may relate to different OPC1 or VAC2 indications, CMC optimization work, or studies targeting different populations.

Sales and Marketing Costs – Sales and marketing efforts for OPC1 can be targeted due to the limited number of Level 1 Trauma Centers that address these types of injuries (management approximates 30-40 sales persons). That being said, management assumed sales and marketing costs of the greater of at least \$5 million annually or 4% of sales.

General and Administrative (G&A) Costs – The model assumed G&A costs similar to current levels with a 3% annual increase in these costs. The model also assumed an additional \$2 million in G&A costs starting when OPC1 enters the E.U. and Japanese markets.

Asterias Projections (in millions)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Risk Adjusted Net Income / (Loss)	(12.2)	(18.3)	(16.3)	(16.5)	(16.3)	(14.9)	(14.2)	(3.9)	26.5	57.7
	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Risk Adjusted Net Income / (Loss)	79.3	83.6	101.6	114.6	121.5	126.2	130.5	134.8	139.3	144.0

Projections Used By Raymond James With Respect to the Future Operations of BioTime

The assumptions and financial estimates regarding BioTime that is included in the Projections Used By Raymond James were prepared based on public financial projections prepared independently without input from BioTime but were modified based on Asterias management's own view on the probabilities of success for BioTime's clinical product candidates. The modified assumptions that were used to revise public financial projections related to the probability of success for BioTime's OpRegen and Renevia product candidates. For OpRegen, Asterias management applied a cumulative probability of success from Phase 1/2 to commercialization of 14% for Dry AMD. For Renevia, Asterias management applied a probability of success of 35% for obtaining European approval in HIV-related FLA and a cumulative probability of success to commercialization for indications beyond HIV-related FLA of 9.4%. BioTime did not prepare or review such projections, and Asterias did not seek BioTime's review, of such projections.

BioTime Projections (in millions)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Risk Adjusted Net Income / (Loss)	(44.9)	(48.4)	(72.3)	(104.8)	(46.2)	97.8	209.9	266.8	409.2	523.3

Maxim Projections

The Forecasts used by Maxim, which were approved by BioTime for use by Maxim in connection with its opinion were prepared based upon certain non-public financial analyses and projected cash-based data relating to Asterias initially prepared by Asterias management and modified by BioTime after making certain adjustments to the computation of cash flows that were deemed appropriate by the BioTime management. The projected cash-based data provided by Asterias to BioTime consists of (i) projections relating to Asterias' OPC-1 clinical program that Asterias provided to BioTime in the first quarter of 2018 (the "**OPC1 Projections**") and (ii) projections relating to Asterias' VAC2 clinical program that Asterias provided to BioTime in October 2018 (the "**VAC2 Projections**"). When Asterias updated its projections for OPC1 in October 2018 (the "**Updated OPC1 Projections**"), and provided the Updated OPC1 Projections to Raymond James in connection with the rendering of a fairness opinion, Asterias did not provide, and BioTime did not use, the Updated OPC1 Projections because BioTime had already did extensive analysis of Asterias' OPC1 program using the OPC1 Projections, as modified by adjustments deemed appropriate by BioTime since OPC-1 is an early stage candidate that recently entered clinical development. On the other hand, Asterias did provide to BioTime with the VAC2 Projections in November 2018 because BioTime had not previously prepared a VAC2 model due to VAC2 being in an earlier stage of clinical development. The Forecasts used by Maxim were made available to

Maxim for purposes of its financial analysis as to the fairness of the merger consideration from a financial point of view to BioTime and its shareholders. Below is a description of a number of the main adjustments made by BioTime to the projections prepared by Asterias to create the Forecasts used by Maxim.

Development pathways and expenses – For OPC1 Japan, the clinical development pathway was adjusted to reflect the regenerative medicine conditional approval pathway as stated in the Revised Pharmaceutical Affairs Act (rPAA). This development pathway calls for a small Japanese Phase 2 study followed by up to five years of on-market patient registry data. For VAC2, the costs of the Phase 1 non-small cell lung cancer trial were removed as the trial is 100% funded by Cancer Research UK (CRUK).

Probability of Success – Probability of clinical success assumptions were adjusted to reflect therapeutic area historical data as summarized in the BIO Industry Analysis Report: “Clinical Development Success rates 2006-2015”. For the US OPC1 forecast, the probability of success by stage was adjusted using the neurology therapeutic area historical data such that the cumulative probability of Phase 2 through approval success became 14.25 Vs 21.3%. For Japan, the neurology P2 success rate was used for both the Phase 2 study as well as the on-market registry for a cumulative probability of success of 31% Vs 21.3%. For VAC2, the oncology therapeutic area historical data was used such that the cumulative probability of success from Phase 1 through approval became 5.1% Vs 12.5%

Addressable population and penetration – For VAC2, adjustments were made to the forecast assumptions to reflect opinions of immune-oncology therapeutic area experts (KOLs) from a marker research study commissioned by BioTime. The addressable population of patients (those patients who could possibly benefit from a therapy) was adjusted from 15% to 40% in US and EU and 30% in China to reflect KOL views on success rates of approved therapies and the move to combination immunotherapies. The peak penetration rates (the percentage of addressable patients that may go on a therapy) was adjusted from 15% to 20% in the US and EU.

Commercialization scenarios – All forecasts were set to a ‘go-it-alone’ scenario meaning the combined entity would develop the therapies through to approval and would commercialize. For VAC2, the royalty payable to CRUK was added to the forecast scenario.

These updated forecasts were then provided by management of BioTime to Maxim, who was then directed by the BioTime Special Committee of the BioTime board of directors to use the Forecasts used by Maxim in connection with the rendering of Maxim’s fairness opinion and for performing Maxim’s related financial analysis, as described under the section titled “—*Opinion of BioTime’s Financial Advisor.*” A summary of the probability-adjusted free cash flows from the Forecasts used by Maxim is included below to provide BioTime stockholders access to specific non-public information that was considered by the BioTime Special Committee for purposes of evaluating the merger.

The following table contains summary data from the Forecasts used by Maxim.

(in thousands)	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Risk Adjusted Net Income/(Loss)	(10,276)	(19,713)	(18,538)	(13,010)	3,058	7,622	18,970	38,138	60,642	81,006	
	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	
Risk Adjusted Net Income/(Loss)	111,846	122,065	135,233	143,587	152,561	266,658	156,111	164,090	172,492	181,341	

Interests of BioTime’s Directors and Executive Officers in the Merger

In considering the recommendations of the BioTime Board with respect to the Merger, BioTime’s shareholders should be aware that certain of the directors and executive officers of BioTime have certain interests, including financial interests, in the Merger that may be different from, or in addition to, the interests of BioTime’s shareholders generally. The BioTime Board was aware of these interests and considered them, among other matters, in approving the Merger Agreement, and in making its recommendations that BioTime’s shareholders approve the BioTime Share Issuance. The BioTime Board also ultimately determined that the Merger Agreement and the transactions contemplated thereby, including the Merger and the BioTime Share Issuance, was fair to, advisable and in the best interests of BioTime and its shareholders. See the sections entitled “*The Merger—Background of the Merger*” and “*The Merger—BioTime’s Reasons for the Merger and BioTime Share Issuance; Recommendation of the BioTime Board of Directors.*” These interests are described in more detail below.

Service as Directors or Executive Officers of Asterias

Mr. Alfred D. Kingsley, the Chairman of the BioTime Board, and Michael H. Mulroy, a member of the BioTime Board, each serve on the Asterias Board. In addition, Mr. Mulroy serves as Asterias’ Chief Executive Officer.

As discussed in the section entitled “*The Merger—Background of the Merger*,” the BioTime Board agreed that Messrs. Kingsley and Mulroy would recuse themselves from any vote by the BioTime Board on matters related to a potential acquisition of Asterias, including approval of the economic terms of any such acquisition, and the BioTime Board also held sessions in which such topics were discussed without the participation of Messrs. Kingsley and Mulroy. Additional information regarding the material business and other relationships of the members of the BioTime Board with Asterias is described in BioTime’s Proxy Statement for its 2018 annual meeting of stockholders on Schedule 14A, which is incorporated by reference into this joint proxy statement/prospectus. See the section entitled “*Where You Can Find More Information*,”

Ownership of Asterias Common Stock

Certain directors and executive officers of BioTime beneficially own, as of December 17, 2018, an aggregate of 5,964,256 shares of Asterias Common Stock as a group. In connection with the Merger, each outstanding share of Asterias Common Stock (other than shares owned by Asterias, BioTime, or Merger Sub, if any, which will be cancelled), including shares held by any of BioTime's directors and executive officers, will be converted into the right to receive 0.71 BioTime Common Shares, with cash paid in lieu of fractional shares.

The following table sets forth the total number of shares of Asterias Common Stock beneficially owned by each such individual and certain affiliated entities, as well as each of the BioTime Named Executive Officers identified in the BioTime Proxy Statement on Schedule 14A filed with the SEC on March 29, 2018, as of December 17, 2018.

Name	Number of shares of Asterias Common Stock Beneficially Owned
Executive Officers	
Michael D. West ⁽¹⁾	3,846
Non-Employee Directors	
Neal C. Bradsher ⁽²⁾	5,292,156
Alfred D. Kingsley ⁽³⁾	254,000
Michael H. Mulroy ⁽⁴⁾	414,254

(1) Includes 3,846 shares of Asterias Common Stock that may be acquired upon the exercise of certain stock options. Dr. West resigned as BioTime's co-CEO in September 2018.

(2) Includes 5,292,156 shares of Asterias Common Stock owned by Broadwood Capital, Inc. Mr. Bradsher is the President of Broadwood Capital, Inc.

(3) Includes 245,000 shares of Asterias Common Stock that may be acquired upon the exercise of certain stock options.

Includes 283,315 shares of Asterias Common Stock that may be acquired upon the exercise of certain stock options, 33,334 shares of Asterias Common Stock that may be acquired upon the exercise of certain stock options (4) that will become exercisable within 60 days of December 17, 2018. Excludes 683,350 shares of Asterias Common Stock that may be acquired upon the exercise of certain stock options that are not presently exercisable and that will not become exercisable within 60 days.

In addition, as of December 17, 2018, BioTime owned 38.9% of the outstanding shares of Asterias Common Stock. Since the deconsolidation of Asterias on May 13, 2016, BioTime experienced a loss of control under U.S. GAAP and Asterias ceased being a consolidated subsidiary but has remained a significant affiliate of BioTime.

Interests of Asterias' Directors and Executive Officers in the Merger

In considering the recommendations of the Asterias' Board with respect to the Merger, Asterias' stockholders should be aware that certain of the directors and executive officers of Asterias have certain interests, including financial interests, in the Merger that may be different from, or in addition to, the interests of Asterias' stockholders generally. The Asterias Board and the Asterias Special Committee were aware of these interests and considered them, among other matters, in evaluating and negotiating the Merger Agreement and in reaching a decision to approve the Merger Agreement and the transactions contemplated therein. These interests are described below.

Service as Directors or Executive Officers of BioTime; Family Relationships

Mr. Michael Mulroy, CEO of Asterias and a member of the Asterias Board, and Mr. Alfred Kinsley, a member of the Asterias Board, each serve on the BioTime Board.

In addition, Mr. Andrew Arno, a member of the Asterias Board, serves of the board of directors of OncoCyte, Inc., a former majority-owned subsidiary of BioTime, Inc. In selecting Mr. Arno for service on the Asterias Special Committee, the Asterias Board concluded, and Mr. Arno agreed, that Mr. Arno's service on the board of directors of OncoCyte, Inc. did not present a material conflict of interest for Mr. Arno.

Aditya Mohanty, a member of the Asterias Board, was a Co-Chief Executive Officer and a member of the BioTime Board until September 17, 2018. As discussed in the section entitled "*The Merger—Background of the Merger*," the Asterias Board approved the creation of the Asterias Special Committee consisting of Don M. Bailey, Andrew Arno and Natale S. Ricciardi, each determined by the Asterias Board to be an independent board member and disinterested with respect to BioTime's proposal to acquire Asterias, to consider the proposal from BioTime and any strategic alternatives thereto.

Merger-Related Compensation for BioTime's Named Executive Officers

The rules promulgated by the SEC under Section 14A of the Exchange Act generally require companies to seek a non-binding advisory vote from stockholders with respect to certain compensation that will or may become payable to their named executive officers in connection with a merger. BioTime is not seeking this non-binding, advisory vote from its stockholders because none of BioTime's named executive officers are entitled to any such merger-related compensation that would otherwise require such a vote. For information regarding the interests of BioTime's named executive officers in the Merger, see the section entitled "*The Merger—Interests of BioTime's Directors and Executive Officers in the Merger*."

Treatment of Asterias Equity Awards

Asterias Stock Options

Each option to purchase Asterias Common Stock that is outstanding and unexercised as of the effective time of the Merger, whether vested or unvested, shall be cancelled and extinguished for no consideration and shall cease to exist after the effective time of the Merger. For a full description of the treatment of Asterias stock options, see the section entitled "*The Merger Agreement—Treatment of Asterias Equity Awards*."

Asterias Restricted Stock Unit Awards

Each Asterias restricted stock unit award that is outstanding immediately prior to the effective time of the Merger will vest in full immediately prior to the effective time of the Merger (if not already vested at such time) and will be cancelled and converted into the right to receive 0.71 BioTime Common Shares in respect of each share of Asterias Common Stock underlying each Asterias restricted stock unit award. For a full description of the treatment of Asterias restricted stock unit awards, see the section entitled “*The Merger Agreement—Treatment of Asterias Equity Awards.*”

Assuming that the closing of the Merger occurs on March 30, 2019, the following table sets forth, for each of Asterias’ executive officers holding Asterias restricted stock unit awards as of such date, and the number of BioTime Common Shares into which such Asterias restricted stock unit awards will be converted. However, the actual number of Asterias restricted stock unit awards to be converted into BioTime Common Shares will depend on the number of outstanding Asterias restricted stock unit awards held by such individuals immediately prior to the effective time of the Merger. Asterias’ directors do not hold any restricted stock unit awards, whether vested or unvested.

	Asterias Restricted	BioTime Common Shares
	Stock Unit Awards	
Executive Officers		
Michael H. Mulroy	-	-
Ryan D. Chavez	37,500	26,625
Edward Wirth III	37,500	26,625
Craig Halberstadt	12,500	8,875

Treatment of Asterias Warrants