INTRABIOTICS PHARMACEUTICALS INC /DE
Form S-3
June 05, 2002

QuickLinks -- Click here to rapidly navigate through this document

As filed with the Securities and Exchange Commission on June 5, 2002

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT
Under
THE SECURITIES ACT OF 1933

INTRABIOTICS PHARMACEUTICALS, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**94-3200380**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

1245 Terra Bella Avenue
Mountain View, CA 94043
(650) 526-6800

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Ernest Mario, Ph.D.
Chairman and Chief Executive Officer
IntraBiotics Pharmaceuticals, Inc.
1245 Terra Bella Avenue
Mountain View, CA 94043
(650) 526-6800

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Laura A. Berezin, Esq.
Cooley Godward LLP
3000 El Camino Real
Palo Alto, CA 94306
(650) 843-5000

Approximate date of commencement of proposed sale to the public:
From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered in connection with dividend or interest reinvestment plans, check the following box. ý

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

If this Form is a post-effective amendment filed pursuant to Rule 462(c) 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. o

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. o

CALCULATION OF REGISTRATION FEE

Title of Class of Securities to be registered	Amount to Be registered	Proposed Maximum Offering Price Per Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration fee
Common Stock, $.001 par value	881,683	$1.53	$1,348,975	$125

(1) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(c) of the Securities Act of 1933. The price per share and aggregate offering price are based upon the average of the high and low sales price of IntraBiotics's common stock on June 3, 2002 as reported on the Nasdaq National Market. It is not known how many shares will be purchased under this registration statement or at what price such shares will be purchased.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Subject to Completion, dated June 5, 2002

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This Prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS

881,683 Shares

INTRABIOTICS PHARMACEUTICALS, INC.

Common Stock

We are registering our common stock for resale by the selling stockholders identified in this prospectus. We will not receive any of the proceeds from the sale of shares by the selling stockholders. Our common stock is listed on the Nasdaq National Market under the symbol "IBPI." On June 4, 2002, the last reported sales price for our common stock, was $1.59 per share.

Investing in our common stock involves a high degree of risk. See "Risks Related to Our Business," beginning on page 3.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is , 2002.

TABLE OF CONTENTS

SUMMARY

This summary provides an overview of selected information and does not contain all the information you should consider before investing in our securities. To fully understand this offering and its consequences to you, you should read the entire prospectus carefully, including the "Risks Related to Our Business" section and the documents that we incorporate by reference into this prospectus, before making an investment decision. In this prospectus we refer to IntraBiotics Pharmaceuticals, Inc. as "IntraBiotics," "we," "our" and "us."

INTRABIOTICS PHARMACEUTICALS, INC.

IntraBiotics Pharmaceuticals, Inc. is a biopharmaceutical company focused on developing and commercializing high-value anti-infectives and oncology therapeutics. Our clinical development programs focus on addressing medical problems for patients who currently have few or no satisfactory alternatives. Because our lead drug candidate, iseganan hydrochloride (HCl), uses novel mechanisms of action to kill bacteria and fungi, we expect it to be particularly useful in fighting serious infections that are not well treated by current therapies. In particular, iseganan's broad spectrum of antimicrobial activity (including activity against multi-drug resistant bacteria and yeast), its ability to kill microorganisms within minutes, and its low propensity to engender resistance make iseganan HCl a novel and potentially important advance.

In April 2002, we acquired Apothogen, Inc. for 450,000 shares of our common stock. Concurrently with the closing of the merger, Ernest Mario, Ph.D. joined us as Chairman and Chief Executive Officer and purchased newly issued shares of our common stock at a purchase price per share equal to the closing bid price as reported on the Nasdaq National Market on April 23, 2002, in a private placement transaction with proceeds to us of $5.0 million.

Our current product portfolio includes iseganan HCl, which has three potential indications: reduction in incidence and severity of oral mucositis, prevention of ventilator-associated pneumonia and treatment of respiratory infections in cystic fibrosis patients. Iseganan HCl oral solution is currently in a phase III clinical trial for the reduction in the incidence and severity of ulcerative oral mucositis in patients undergoing chemotherapy. Oral mucositis is a common debilitating side effect of cancer therapy and is characterized by severe mouth ulcers that often become infected. In May 2002, we announced top-line results of our phase III clinical trial of iseganan HCl oral solution to prevent or reduce oral mucositis in patients undergoing radiotherapy. The trial showed no difference between iseganan and placebo in the primary and secondary end-points. The group of patients who received iseganan and the group of patients who received placebo did better than the group of patients who received only standard of care. We are still in the process of fully analyzing and evaluating this data and plan to present full results during an oral presentation at the 38th Annual Meeting of the American Society for Clinical Oncology. In addition, we have completed a phase I/IIa study of iseganan HCl oral solution for the prevention of ventilator-associated pneumonia and we intend to commence a phase II clinical trial in the second half of 2002. We have also completed a phase I study of iseganan HCl solution for inhalation in cystic fibrosis patients.

In May 2001, we implemented a restructuring plan intended to conserve capital and help direct financial and human resources to the development of iseganan HCl oral solution for the reduction in incidence and severity of oral mucositis in cancer patients. The strategic restructuring included a reduction in force of approximately 90 positions in research and administration, or 71% of our workforce of 127 employees. The restructuring also included the termination of certain research and development collaborations and the consolidation of operations into one existing facility in Mountain View, California.

Our executive offices are located at 1245 Terra Bella Avenue, Mountain View, California 94043, and our telephone number is (650) 526-6800.

RISKS RELATED TO OUR BUSINESS

An investment in our shares being offered in this prospectus involves a high degree of risk. The SEC allows us to "incorporate by reference" information that we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will periodically update and supersede this information. In deciding whether to purchase shares of our common stock, you should carefully consider the following risk factors, in addition to other information contained in this prospectus, in our most recent annual report on Form 10-K and in any other documents incorporated by reference into this prospectus from our other SEC filings. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed here or incorporated by reference. Factors that could cause or contribute to differences in our actual results include those discussed in this section, as well as those discussed elsewhere in this prospectus and in other documents incorporated by reference into this prospectus.

We expect to continue to incur future operating losses and may never achieve profitability.

We have never generated revenue from product sales and have incurred significant net losses in each year since inception. We incurred net losses of $23.1 million in 1999, $45.6 million in 2000, $67.4 million in 2001 and $4.9 million in the quarter ended March 31, 2002. As of March 31, 2002, our accumulated deficit was approximately $170.7 million. We expect to continue to incur substantial additional losses for the foreseeable future primarily as a result of increases in clinical trial costs, and we may never become profitable. In addition, we expect to incur further costs to commercialize iseganan HCl oral solution. To date, we have financed our operations primarily through the private sale of equity securities, funds received from a terminated collaboration agreement, the proceeds of equipment financing arrangements, our initial public offering of common stock in March 2000 and private placements of common stock during the quarter ended March 31, 2002 and in April 2002. We will receive product revenues only if we complete clinical trials with respect to one or more products, receive regulatory approvals and successfully commercialize such products.

We may be forced to raise capital sooner than currently anticipated and if we fail to obtain the capital necessary to fund our operations, we will be unable to develop our drug candidates and may have to cease operations.

We believe that our cash balances and cash equivalents net of restricted cash of approximately $38.2 million, at March 31, 2002, in addition to approximately $5.0 million received in April 2002, will be sufficient to meet our operating and capital requirements for at least the next 12 months. However, we have based this estimate on assumptions that may prove to be wrong. For the years ended December 31, 1999, 2000 and 2001, net cash used for operating activities was $25.1 million, $50.4 million, and $53.6 million, respectively. In May 2001, we implemented a restructuring plan in order to conserve our cash reserves. Our future liquidity and capital requirements will depend on many factors, including the timing, delay, cost, extent and results of clinical trials, payments associated with manufacturing scale-up, the costs and timing of regulatory approvals, the costs of establishing sales, marketing and distribution capabilities and costs associated with researching drug candidates, securing in-licensing opportunities and conducting preclinical research.

We believe that additional financing will be required in the future to fund our operations. We do not know whether additional financing will be available when needed or on acceptable terms, if at all. If we are unable to raise additional financing when necessary, we may have to delay some or all of our product development efforts or be forced to cease operations. Any additional equity financing may be dilutive to stockholders, and debt financing, if available, may involve restrictive covenants. Collaborative arrangements may require us to relinquish our rights to certain of our technologies, drug candidates or marketing territories.

We depend on the outcome of our clinical trials and if they are unsuccessful, we may not be able to commercialize our products and generate product revenue.

Before obtaining regulatory approvals for the commercial sale of any products, we must demonstrate through preclinical research and clinical trials that our drug candidates are safe and effective for use in humans. If we are unable to demonstrate the safety and efficacy of iseganan HCl oral solution in phase III clinical trials, we may be unable to obtain regulatory approval from the FDA or to commercialize the drug candidate, and we will be unable to generate product revenue from that candidate for that indication. Clinical trials are expensive and time-consuming to conduct, and the timing and outcome of these trials is uncertain. A number of new drugs have shown promising results in clinical trials, but subsequently failed to establish sufficient safety and efficacy data to obtain necessary regulatory approvals. A number of companies have suffered significant setbacks in advanced clinical trials, even after promising results in earlier trials. In May 2002, we announced that our clinical trial of iseganan HCl oral solution to treat patients undergoing radiotherapy to prevent or reduce oral mucositis had failed to demonstrate any difference between iseganan and placebo in the primary or secondary end-points. While we are still analyzing the data, we believe that iseganan does not provide clinical benefit for these patients. As a result, we intend to pursue the development of iseganan HCl oral solution only for patients undergoing chemotherapy and other formulations of iseganan in ventilator-assisted pneumonia and cystic fibrosis.

In addition, if we have delays in clinical trials or the FDA approval process or if we need to perform more or larger clinical trials, our product development costs will increase and our ability to generate product revenue will be delayed. For example, in January 2001, we discovered that a contract vendor dispensed placebo and active drug in error to approximately one-third of the patients in our phase III clinical trail for iseganan HCl oral solution. As a result, we are conducting an additional phase III clinical trial, which has delayed our FDA approval process.

Our commencement and completion of clinical trials may be delayed by many factors, including:

- slower than expected rate of patient recruitment;
- inability to adequately obtain data about patients after their treatment;
- additional regulatory requests;
- inability to manufacture sufficient quantities of materials used for clinical trials; or
- unforeseen safety issues.

If the delays are substantial, the increase in product development expenses could cause our losses to increase and diminish the commercial potential for our drug candidates.

If our collaborative partners assisting in our clinical trials fail to appropriately manage our clinical trials, the trials could be delayed or could fail.

We rely on contract research organizations, including PharmaNet, Inc., to assist us in managing and monitoring our clinical trials. The FDA may inspect some of our clinical investigational sites, our collaborative partner's records and our facility and files to determine if the clinical trials were conducted according to good clinical practices. If the FDA determines that the trials were not in compliance with good clinical practices, we may be required to repeat the clinical trials. If our contract research organizations fail to perform under our agreements with them, we may face delays in completing our clinical trials or failure of our clinical program.

In January 2001, an error on the part of one of our subcontractors that was managing the drug dispensing led to a dispensing error in both of our phase III clinical trials of iseganan HCl oral solution. We believe that as a result of this error, the clinical trial failed to demonstrate the efficacy of

iseganan HCl oral solution for the reduction in incidence and severity of oral mucositis in patients receiving chemotherapy at the levels of statistical significance typically required by the FDA. As a result, we are conducting an additional phase III clinical trial and our timing for the FDA approval process has been delayed.

If our single-source third party manufacturers fail to produce clinical or commercial quantities of our drug candidates, we may not have sufficient quantities of our drug candidates to meet demand.

We rely on a single source of contract manufacturers, PolyPeptide Laboratories A/S and Patheon, Inc., to manufacture the bulk drug substance and formulated drug product on a commercial scale, respectively. While we maintain a limited inventory of our drug, we depend on contract manufacturers to produce our products for use in our clinical trials. Our contract manufacturers have limited experience in manufacturing iseganan HCl in quantities sufficient for commercialization and may have difficulty in scaling up production. If our contract manufacturers are unable or fail to produce the required quantities of iseganan HCl for clinical use or commercial sale on a timely basis, at commercially reasonable prices and with sufficient purity, we will not have sufficient quantities to complete current and future clinical trials, or to meet commercial demand.

Our third-party manufacturers and we are required to register manufacturing facilities with the FDA and foreign regulatory authorities. If these facilities become unavailable for any reason or if our contract manufacturers fail to comply with the FDA's current good manufacturing practices or if our contract manufacturers terminate their agreements with us, we would have to find an alternative source for manufacturing our drug candidates. There are, on a worldwide basis, a limited number of contract facilities in which our drug candidates can be produced according to current good manufacturing practice regulations. In addition, the manufacturing processes for iseganan HCl are extremely complex and proprietary. If we are unable to continue having iseganan manufactured by our current contract manufacturers, we do not know if we could engage another contract manufacturer when needed or on acceptable terms, if at all.

If we fail to obtain FDA approvals for our products, we will be unable to commercialize our drug candidates.

We do not have a drug candidate approved for sale in the U.S. or any foreign market. We must obtain approval from the FDA in order to sell our drug candidate in the U.S. and from foreign regulatory authorities in order to sell our drug candidate in other countries. We must successfully complete our phase III clinical trial and demonstrate manufacturing capability before we can file with the FDA for approval to sell our products. The FDA could require us to repeat clinical trials as part of the regulatory review process. Delays in obtaining or failure to obtain regulatory approvals may:

- delay or prevent the successful commercialization of our drug candidate;
- diminish our competitive advantage; and
- defer or decrease our receipt of revenues or royalties.

The regulatory review and approval process is lengthy, expensive and uncertain. Extensive preclinical and clinical data and supporting information must be submitted to the FDA for each indication to establish safety and effectiveness in order to secure FDA approval. We have

limited experience in obtaining such approvals, and cannot be certain when, if ever, we will receive these regulatory approvals.

In addition to initial regulatory approval, our drug candidate will be subject to extensive and rigorous ongoing domestic and foreign government regulation. Any approvals, once obtained, may be withdrawn if compliance with regulatory requirements is not maintained or safety problems are identified. Failure to comply with these requirements may subject us to stringent penalties.

Development and commercialization of competitive products could reduce or prevent sales of our products and reduce revenue.

We may be unable to compete successfully if other companies develop and commercialize competitive products that are less expensive, more effective, have fewer side effects or are easier to administer than our drug candidate. If we are unable to compete successfully with our drug candidate, physicians may not recommend and patients may not buy our drug, which would cause our product revenue to decline.

There are several drugs commercially available or under development that might compete with iseganan HCl oral solution. There is one approved device, Radiacare®, and several drugs in early stage clinical trials for prevention or treatment of oral mucositis. These include one antimicrobial agent, triclosan, and two growth factors, keratinocyte growth factor and keratinocyte growth factor-2. GM-CSF is also under development in radiotherapy-induced oral mucositis. The companies sponsoring these trials have successfully commercialized products in the past. In addition, there may be products under development of which we are unaware for the prevention or the treatment of oral mucositis.

Many of our competitors and related private and public research and academic institutions have substantially greater experience, financial resources and larger research and development staffs than we do. In addition, many of these competitors, either alone or together with their collaborative partners, have significantly greater experience than we do in developing drugs, obtaining regulatory approvals and manufacturing and marketing products. We also compete with these organizations and other companies for in-licensing opportunities for future drug candidates, and for attracting scientific and management personnel.

If we are unable to adequately protect our intellectual property, we may be unable to sell our products or to compete effectively.

We rely on a combination of patents, trade secrets and contractual provisions to protect our intellectual property. If we fail to adequately protect our intellectual property, other companies or individuals may prevent us from selling our products or may develop competing products based on our technology. Our success depends in part on our ability to:

obtain patents;

protect trade secrets;

operate without infringing upon the proprietary rights of others; and

prevent others from infringing on our proprietary rights.

We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary rights are covered by valid and enforceable patents or are effectively maintained as trade secrets.

We try to protect our proprietary position by filing U.S. and foreign patent applications related to our proprietary technology, inventions and improvements that are important to the development of our business. For example, we own or have rights to nine patents and five pending patent applications in the U.S. However, the patent position of biopharmaceutical companies involves complex legal and factual questions. We cannot predict the enforceability or scope of any issued patents or those that may issue in the future. Patents, if issued, may be challenged, invalidated or circumvented. Consequently, if any patents that we own or license from third parties do not provide sufficient protection, our competitive position would be weakened. Furthermore, others may independently develop similar technologies or duplicate any technology that we have developed. In addition, we may not be issued patents for our pending patent applications, those we may file in the future, or those we may license from third parties.

In addition to patents, we rely on trade secrets and proprietary know-how. Our contract manufacturers perform the manufacturing processes covered by these trade secrets. Accordingly, our contract manufacturers and we must maintain confidentiality. We have confidentiality and proprietary information agreements with our contract manufacturers and with our employees. These agreements may not provide meaningful protection or adequate remedies for our technology in the event of unauthorized use or disclosure of confidential and proprietary information.

We may be subject to intellectual property litigation that could be costly and time-consuming.

The biotechnology and pharmaceutical industries have been characterized by extensive litigation regarding patents and other intellectual property rights. Although we are not currently a party to any lawsuits, third parties may assert infringement or other intellectual property claims against us. We may have to pay substantial damages, including treble damages, for past infringement if it is ultimately determined that our products infringe a third party's proprietary rights. The defense and prosecution of intellectual property suits, U.S. Patent and Trademark Office interference proceedings and related legal and administrative proceedings in the U.S and internationally are costly and time-consuming to pursue and their outcome is uncertain. If we become involved in any of these proceedings, we will incur substantial expense and the efforts of our technical and management personnel will be significantly diverted. An adverse determination may result in the invalidation of our patents, subject us to significant liabilities or require us to seek licenses that may not be available from third parties on satisfactory terms, or at all. Our stock price could decline based on any public announcements related to litigation or interference proceedings initiated or threatened against us.

If physicians and patients do not accept our products, we may be unable to generate significant revenue, if any.

Our drug candidate may not gain market acceptance among physicians, patients and the medical community. If our drug candidate fails to achieve market acceptance, we may be unable to successfully market and sell the product, which would limit our ability to generate revenue. The degree of market acceptance of any drug candidate depends on a number of factors, including:

demonstration of clinical efficacy and safety;

cost-effectiveness;

convenience and ease of administration;

potential advantage over alternative treatment methods; and

marketing and distribution support.

Physicians will not recommend our products until such time as clinical data or other factors demonstrate the safety and efficacy of our drugs as compared to other treatments. In practice, competitors may be more effective in marketing their drugs. Even if the clinical safety and efficacy of our product is established, physicians may elect not to recommend its use. For example, physicians may be reluctant to prescribe widespread use of our products because of concern about developing bacterial strains that are resistant to our drugs, or because of the cost of our drug.

If we are unable to establish sales, marketing and distribution capabilities or enter into agreements with third parties to perform these services, we will be unable to commercialize our drug products.

We do not currently have marketing, sales or distribution capabilities. Initially we intend to establish a direct marketing and sales force in the U.S. and Canada. We intend to enter into arrangements with third parties to market and sell most of our products outside of the U.S. and Canada. If we fail to establish successful marketing and sales capabilities or fail to enter into successful

marketing arrangements with third parties, we would be unable to commercialize these drug products. We must develop a marketing and sales force with technical expertise and distribution capabilities to market any of our products directly. To the extent that we enter into marketing and

sales arrangements with other companies, our revenues will be lower than if we marketed the products directly.

The failure to recruit and retain key personnel may delay our ability to complete, develop and commercialize iseganan HCl oral solution.

We are highly dependent on our management and technical staff. Competition for personnel is intense. If we lose the services of any of our senior management, we may be delayed in our product development and commercialization efforts. We do not maintain key person life insurance and do not have employment agreements with our management and technical staff. In order to pursue product development, marketing and commercialization plans, we will need to hire additional qualified scientific personnel to perform research and development. We will also need to hire personnel with expertise in clinical testing, government regulation, manufacturing, marketing and finance. We may not be able to attract and retain personnel on acceptable terms given the competition for such personnel among biotechnology, pharmaceutical and other companies.

In addition, we rely on consultants to assist us in formulating our research and clinical development strategy. All of our consultants are employed by other entities. They may have commitments to, or relationships with, other entities that may limit their availability to us. The loss of the services of these personnel may delay our research and development efforts.

Directors, executive officers, principal stockholders and affiliated entities own a portion of our capital stock and may be able to exert control over our activities.

Our directors, executive officers, principal stockholders and affiliated entities beneficially own, in the aggregate, approximately 38% of our outstanding common stock. These stockholders, if acting together, may be able to significantly influence any matters requiring approval by our stockholders, including the election of directors and the approval of mergers or other business combination transactions.

Antitakeover provisions in our charter documents and under Delaware law may make an acquisition of us more difficult.

Provisions of our certificate of incorporation and bylaws could make it more difficult for a third party to acquire us, even if doing so would be beneficial to our stockholders.

These provisions:

- provide for a classified board of directors of which approximately one third of the directors will be elected each year;
- allow the authorized number of directors to be changed only by resolution of the board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit stockholder action by written consent;
- establish advance notice requirements for nominations to the board of directors or for proposals that can be acted on at stockholder meetings; and
- limit who may call stockholder meetings.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law which may prohibit large stockholders from

consummating a merger with or acquisition of us. These provisions may prevent a merger or acquisition that would be attractive to stockholders and could limit the price that investors would be willing to pay in the future for our common stock.

Our stock price may be volatile, and the value of your investment may decline.

The market prices for securities of biotechnology companies in general have been highly volatile and our stock may be subject to volatility. The following factors, in addition to the other risk factors described in this section, may have a significant impact on the market price of our common stock:

announcements of technological innovations or new commercial products by our competitors or us;

developments concerning proprietary rights;

publicity regarding actual or perceived adverse events in our clinical trials or relating to products under development by our competitors;

regulatory developments in the U.S. or foreign countries;

litigation;

significant short selling in our common stock;

economic and other external factors; and

period-to-period fluctuations in our financial results and changes in analysts' recommendations.

Future sales of our common stock by existing stockholders or by us could cause our stock price to decline.

Sales by existing stockholders of a large number of shares of our common stock in the public market or the perception that sales could occur could cause the market price of our common stock to drop. Likewise, additional equity financings or other share issuances by us could adversely affect the market price of our common stock.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but not always, made through the use of words or phrases like "anticipate," "estimate," "plans," "projects," "continuing," "ongoing," "expects," "management believes," "we believe," "we intend" and similar words or phrases. Accordingly, these statements involve estimates, assumptions and uncertainties which could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed in this prospectus or incorporated by reference.

Because the factors discussed in this prospectus or incorporated by reference could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on behalf of the company, you should not place undue reliance on any such forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which will arise. In addition, we cannot assess the impact of each factor on our business or the extent

to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

USE OF PROCEEDS

We will not receive any proceeds from the resale of the shares of common stock offered by the selling stockholders.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information at the SEC's public reference rooms in Washington, D.C., New York, NY and Chicago, IL. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference rooms. Our SEC filings are also available at the SEC's Web site at "http://www.sec.gov."

We incorporate by reference the documents listed below and any future filings we will make with the SEC under Section 13 (a), 13(c), 14 or 15 (d) of the Securities Exchange Act:

our Annual Report on Form 10-K for the year ended December 31, 2001;

our Quarterly Report on Form 10-Q for the quarter ended March 31, 2002;

our Current Reports on Form 8-K dated January 21, 2002, January 30, 2002, March 10, 2002, March 28, 2002, April 24, 2002 and May 3, 2002; and

the description of our common stock contained in our registration statement on Form 8-A, filed with the SEC on March 17, 2000.

We will furnish without charge to you, upon written or oral request, a copy of any or all of the documents described above, except for exhibits, unless the exhibits are specifically incorporated by reference into the documents. You should direct your requests to the following address or telephone number:

IntraBiotics Pharmaceuticals, Inc.
1245 Terra Bella Avenue
Mountain View, CA 94043
Attn: Investor Relations
(650) 526-6800

WE HAVE AUTHORIZED NO ONE TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS NOT CONTAINED IN THIS PROSPECTUS. YOU SHOULD RELY ONLY ON THE INFORMATION PROVIDED IN THIS PROSPECTUS OR INCORPORATED BY REFERENCE THEREIN. YOU MUST NOT RELY ON ANY UNAUTHORIZED INFORMATION.

THIS PROSPECTUS DOES NOT OFFER TO SELL OR BUY ANY SHARES OF COMMON STOCK IN ANY JURISDICTION WHERE IT IS UNLAWFUL. YOU SHOULD NOT ASSUME THAT THE INFORMATION IN THIS PROSPECTUS IS ACCURATE AS OF ANY DATE OTHER THAN THE DATE ON THE FRONT OF THIS DOCUMENT.

SELLING STOCKHOLDERS

We are registering for resale certain shares of our common stock issuable upon exercise of a warrant held by one of the selling stockholders identified below. In April 2002, we acquired Apothogen, Inc. and agreed to register the shares of our common stock issued or issuable to the former stockholders of Apothogen, Inc. in the acquisition. The following table sets forth:

the name of each selling stockholder;

the number and percent of shares of our common stock that the selling stockholders beneficially owned prior to the offering for resale of any of the shares of our common stock being registered by the registration statement of which this prospectus is a part;

the number of shares of our common stock that may be offered for resale for the account of the selling stockholders pursuant to this prospectus; and

the number and percent of shares of our common stock to be held by the selling stockholders after the offering of the resale shares, assuming all of the resale shares are sold by the selling stockholders.

This information is based upon information provided by the selling stockholders and assumes the sale of all of the resale shares by the selling stockholders. The term "selling stockholder" includes the stockholders listed below and their transferees, pledgees, donees or other successors. The applicable percentages of ownership are based on an aggregate of 37,539,029 shares of common stock issued and outstanding as of May 10, 2002.

	Shares Beneficially Owned Prior to Offering		Number of Shares Being Offered	Shares Beneficially Owned After Offering	
Selling Stockholders	**Number**	**Percent**		**Number**	**Percent**
Diversa Corporation (1) 4955 Directors Place San Diego, CA 92121-1609	475,000	1.3%	475,000		
J.P. Morgan Partners (BHCA) L.P. (2) 1221 Avenue of the Americas, 39th Fl. New York, NY 10020	314,057	*	314,057		
Pharmaceutical Product Development, Inc. (2) 3151 South 17th Street Wilmington, NC 28412	69,815	*	69,815		
Fredric Eshelman (2) c/o Pharmaceutical Product Development, Inc. 3151 South 17th Street Wilmington, NC 28412	22,811	*	22,811		

* Less than 1%

(1) The selling stockholder acquired the right to purchase the shares pursuant to a warrant issued to the selling stockholder on July 27, 2001 in a private transaction exempt from the registration requirements of the Securities Act in connection with a release agreement pertaining to termination of a drug discovery, development and license agreement. Neither the selling stockholder nor any of its affiliates, officers, directors or principal equity holders has held any position or office or has had any material relationship with us within the past three years, other than in connection with the terminated drug discovery, development and license agreement.

(2)

The selling stockholders acquired or will acquire, subject to a right of offset by us to satisfy certain liabilities, the shares in a private transaction exempt from the registration requirements of the Securities Act in connection with the acquisition by us in April 2002 of Apothogen, Inc., a company in which they were stockholders. Prior to the acquisition, neither the selling stockholders nor any of their affiliates, officers, directors or principal equity holders has held any position or office or has had any material relationship with us within the past three years.

These shares were "restricted securities" under the Securities Act prior to this registration. Information concerning the selling stockholders may change from time to time and any changed information will be set forth in supplements to this prospectus if and when necessary.

PLAN OF DISTRIBUTION

The selling stockholders and their successors, including their transferees, pledgees or donees or their successors, may sell the shares directly to purchasers or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the selling stockholders or the purchasers. These discounts, concessions or commissions as to any particular underwriter, broker-dealer or agent may be in excess of those customary in the types of transactions involved.

The shares may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market prices, at varying prices determined at the time of sale, or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions:

on any national securities exchange or U.S. inter-dealer system of a registered national securities association on which our common stock may be listed or quoted at the time of sale, including the Nasdaq National Market;

in the over-the-counter market;

in transactions otherwise than on these exchanges or systems or in the over-the-counter market;

through the writing of options, whether the options are listed on an options exchange or otherwise; or

through the settlement of short sales.

In connection with the sale of the shares, or otherwise, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the shares in the course of hedging the positions they assume. The selling stockholders may also sell the shares short and deliver these securities to close out their short positions, or loan or pledge the shares to broker-dealers that in turn may sell these securities.

The aggregate proceeds to the selling stockholders from the sale of the shares offered by them will be the purchase price of the shares less discounts and commissions, if any. The selling stockholders reserve the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of shares to be made directly or through agents. We will not receive any of the proceeds from this offering.

In order to comply with the securities laws of some states, if applicable, the shares may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the shares may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the shares may be "underwriters" within the meaning of Section 2(11) of the Securities Act. Any

discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholder who are "underwriters" within the meaning of Section 2(11) of the Securities Act, it will be subject to the prospectus delivery requirements of the Securities Act.

In addition, any shares covered by this prospectus that qualify for sale pursuant to Rule 144 of the Securities Act may be sold under Rule 144 rather than pursuant to this prospectus. A selling stockholder may transfer, devise or gift these securities by other means not described in this prospectus.

To the extent required, the specific shares to be sold, the purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

We entered into registration rights agreements with the selling stockholders which require us to register, or use commercially reasonable efforts to register, their shares under applicable federal and state securities laws under specific circumstances and at specific times. The agreements provide for cross-indemnification of the selling stockholders and us and their and our respective directors, officers and controlling persons against specific liabilities in connection with the offer and sale of the shares, including liabilities under the Securities Act.

If required, we will distribute a supplement to this prospectus to describe material changes in the terms of the offering.

We will pay all costs and expenses associated with the registration of the resale shares. These expenses include the SEC's filing fees and fees under state securities or "blue sky" laws. The selling stockholders will pay all underwriting discounts, commissions, transfer taxes and other expenses associated with any sale of these shares by them.

LEGAL MATTERS

Cooley Godward LLP will pass upon the validity of the issuance of the common stock offered by this prospectus. As of the date of this prospectus, certain attorneys of Cooley Godward LLP own an aggregate of 1,000 shares of our common stock.

EXPERTS

Ernst & Young LLP, independent auditors, have audited our financial statements included in our annual report on Form 10-K for the year ended December 31, 2001, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

881,683 Shares

Common Stock

INTRABIOTICS PHARMACEUTICALS, INC.

Prospectus

, 2002

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The expenses in connection with the distribution of the securities being registered are set forth in the following table (all amounts except the registration fee and the listing fee are estimated):

SEC Registration Fee	125
Legal fees and expenses	5,000

Accounting fees and expenses	10,000
Miscellaneous	875
Total	16,000

Item 15. Indemnification of Officers and Directors.

As permitted by Delaware law, our amended and restated certificate of incorporation provides that no director of ours will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability:

for any breach of duty of loyalty to us or to our stockholders;

for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;

for unlawful payment of dividends or unlawful stock repurchases or redemptions under Section 174 of the Delaware General Corporation Law; or

for any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation and bylaws further provide that we must indemnify our directors and officers and may indemnify our employees and agents to the fullest extent permitted by Delaware law. We believe that indemnification under our amended and restated certificate of incorporation and bylaws covers negligence and gross negligence on the part of indemnified parties.

We have entered into indemnification agreements with each of our directors and officers. These agreements, among other things, require us to indemnify each director and officer for certain expenses including attorneys' fees, judgments, fines and settlement amounts incurred by any such person in any action or proceeding, including any action by or in the right of IntraBiotics Pharmaceuticals, Inc., arising out of the person's services as our director or officer, any subsidiary of ours or any other company or enterprise to which the person provides services at our request.

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise.

Item 16. Exhibits.

(a) Exhibits.

Exhibit No.	Description
4.1*	Release Agreement, dated July 27, 2001, between the Registrant and Diversa Corporation, including Warrant to Purchase Common Stock of the Registrant and the Registration Rights Agreement.
4.2	Letter Agreement by and among the Registrant and signatories thereto, dated April 23, 2002. (1)
5.1	Opinion of Cooley Godward LLP.

Exhibit No.	Description
23.1	Consent of Ernst & Young LLP, Independent Auditors.
23.2	Consent of Cooley Godward LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney. Reference is made to page II-4.

* Confidential treatment has been granted for portions of this document. The information omitted pursuant to such confidential treatment order has been filed separately with the Securities and Exchange Commission.

(1) Incorporated by reference from the exhibit filed with the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2002.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

(1) To file, during any period during which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or any decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low end or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

(2) That, for purposes of determining liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities

to be offered therein, and the offering of such securities at that time shall be deemed to be an initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which shall remain unsold at the termination of the offering.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the

registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to provisions described in Item 15, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Mountain View, State of California, on May 31, 2002.

INTRABIOTICS PHARMACEUTICALS, INC.

By: /s/ ERNEST MARIO, PH.D.

Ernest Mario, Ph.D.
Chief Executive Officer and Chairman of the Board

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Ernest Mario, Ph.D., Henry J. Fuchs, M.D. and Eric H. Bjerkholt, and each of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments and registration statements filed pursuant to Rule 462 of the Securities Act) to this registration statement, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or any of them, or his or her substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ ERNEST MARIO, PH.D. Ernest Mario, Ph.D.	Chief Executive Officer and Chairman of the Board (Principal Executive Officer)	May 31, 2002
/s/ ERIC H. BJERKHOLT Eric H. Bjerkholt	Chief Financial Officer (Principal Financial and Accounting Officer)	May 31, 2002

Signature	Title	Date
/s/ HENRY J. FUCHS, M.D. Henry J. Fuchs, M.D.	President, Chief Operating Officer and Director	May 31, 2002
/s/ KATHLEEN D. LAPORTE Kathleen D. LaPorte	Director	May 31, 2002
/s/ MICHAEL BIGHAM Michael Bigham	Director	May 31, 2002
/s/ GARY A. LYONS Gary A. Lyons	Director	May 31, 2002
/s/ LIZA PAGE NELSON Liza Page Nelson	Director	May 31, 2002
John M. Padfield	Director	
/s/ JACK S. REMINGTON Jack S. Remington	Director	May 31, 2002

EXHIBIT INDEX

Exhibit No.	Description
4.1*	Release Agreement, dated July 27, 2001, between the Registrant and Diversa Corporation, including Warrant to Purchase Common Stock of the Registrant and the Registration Rights Agreement.
4.2	Letter Agreement by and among the Registrant and signatories thereto, dated April 23, 2002. (1)
5.1	Opinion of Cooley Godward LLP.
23.1	Consent of Ernst & Young LLP, Independent Auditors.
23.2	Consent of Cooley Godward LLP. Reference is made to Exhibit 5.1.
24.1	Power of Attorney. Reference is made to page II-4.

*

Confidential treatment has been granted for portions of this document. The information omitted pursuant to such confidential treatment order has been filed separately with the Securities and Exchange Commission.

(1) Incorporated by reference from the exhibit filed with the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2002.

QuickLinks