SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K
FOR ANNUAL & TRANSITION REPORTS PURSUANT TO
SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE
ACT OF 1934

(Mark One)

[X] Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the fiscal year ended December 31, 2004 or

[ ] Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the transition period from ---------- to ----------

Commission File Number: 0-16109

A.P. PHARMA, INC.
(Exact name of registrant as specified in its charter)

Delaware	94-2875566
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
123 Saginaw Drive, Redwood City, California	94063
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (650) 366-2626

Securities registered pursuant to Section 12 (b) of the Act: None

Securities registered pursuant to Section 12 (g) of the Act:
Common Stock ($.01 par value)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes [X] No [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [X]

Indicate by check mark whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act).
Yes [X] No [ ]

The aggregate market value of the voting stock of the registrant held by non-affiliates of the registrant as of June 30, 2004, was $59,317,227. (1)

As of February 28, 2005, 25,040,392 shares of registrant's Common Stock, $.01 par value, were outstanding.

(1)Excludes 7,227,200 shares held by directors, officers and shareholders whose ownership exceeds 5% of the outstanding shares at June 30, 2004. Exclusion of such shares should not be construed as indicating that the holders thereof possess the power, directly or indirectly, to direct the management or policies of the registrant, or that such person is controlled by or under common control with the registrant.

DOCUMENTS INCORPORATED BY REFERENCE

Document	Form 10-K Part
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PART I

Item 1. BUSINESS

INTRODUCTION-FORWARD LOOKING STATEMENTS

Except for statements of historical fact, the statements herein are forward-looking and are subject to a number of risks and uncertainties that could cause actual results to differ materially from the statements made. These include, among others, uncertainty associated with progress in research and development programs, timely development, approval, launch and acceptance of new products, establishment of new corporate alliances and other factors described below under the headings "APP Technology", "Products", "Marketing", "Government Regulation", "Patents and Trade Secrets" and "Competition". In addition, such risks and uncertainties also include the matters discussed under Management's Discussion and Analysis of Financial Condition and Results of Operations in Item 7 below.

COMPANY OVERVIEW

In this Annual Report on Form 10-K, the "Company", "A.P. Pharma", "APP", "we", "us", and "our", refer to A.P. Pharma, Inc.

We are a specialty pharmaceutical company focused on the development of pharmaceutical products utilizing our proprietary polymer-based drug delivery systems. Our focus is the development and commercialization of bioerodible injectable and implantable systems under the trade name Biochronomer(TM). Our business strategy is twofold:
- - to develop selected proprietary products, funding them through the preliminary phases of regulatory review before entering into partnerships to share costs and to earn a share of future profits; and
- - to license our proprietary technologies to corporate partners after the successful completion of reimbursed feasibility studies to earn research and development fees, licensing fees, milestone payments and royalties.

Initial targeted areas of application for our drug delivery technologies include acute and delayed chemotherapy-induced nausea and vomiting; post-surgical pain management; anti-inflammatory and ophthalmology applications; device coatings and vaccines. Product development programs are primarily funded by the sale of common stock in June 2004, royalties from topical prescription products currently marketed by our pharmaceutical partners, Johnson & Johnson and Sanofi-Aventis, proceeds from the divestiture of our cosmeceutical and toiletry product lines in July 2000, fees we receive from collaborative partners, and proceeds from the sale of our Analytical Standards business in February 2003.

Bioerodible polymers are of increasing interest within the pharmaceutical and biotechnology community for use in both drug delivery applications and as devices. We have made substantial progress in developing bioerodible polymers that potentially represent a significant improvement over existing drug delivery systems. A major point of difference with other delivery systems is that our polymers have been specifically designed as drug delivery systems and are versatile. Over one hundred in vivo and in vitro studies have been completed to advance understanding of this innovative drug delivery technology. We have also completed Phase 2 human clinical trials using APF112, our product-candidate for the treatment of post-surgical pain, and Phase 1 human clinical trials using APF530, our product candidate for the prevention of acute and delayed chemotherapy-induced nausea and vomiting. Importantly, toxicology and clinical data indicate that the technology is safe for use in humans. Studies demonstrate complete and controlled bioerosion of the polymers. Erosion times can be varied from hours to days, weeks or months and mechanical properties can be adjusted to produce materials as diverse as injectable gels, coatings, strands, wafers, films or microspheres. In addition, the manufacturing is reproducible and the polymers are stable, provided they are stored under appropriate anhydrous conditions. In studies, the polymers were observed to erode to completion and, once the drug was released, no polymer remained. In addition, the polymers bioerode with low acidity, thus potentially allowing the delivery of sensitive proteins and DNA.

APF530 is our lead product candidate and is intended for the prevention of acute and delayed chemotherapy-induced nausea and vomiting. We have completed a Phase 1 trial which evaluated 2.5 mg, 5 mg, 10 mg and 20 mg doses of granisetron. Preliminary results indicate that APF530 met its target kinetic profile in healthy volunteers. At the highest dose, the product showed meaningful plasma levels within one hour post dosing and these were

maintained for up to five days. We believe that meeting target plasma levels is a critical step prior to establishing efficacy in the treatment of acute and delayed chemotherapy-induced nausea and vomiting. In addition, the escalating doses led to predicted increases in plasma levels of granisetron. A regulatory submission was filed with the Food and Drug Administration (FDA) early in 2005. We expect to initiate a Phase 2 clinical trial to assess pharmacokinetics, safety and tolerability in patients receiving a single dose of APF530 while undergoing moderately emetogenic chemotherapy in the first half of 2005 and to enter pivotal studies towards the end of 2005.

Our second Biochronomer product candidate is APF112 for the treatment of post-surgical pain. APF112 incorporates the well-known analgesic mepivacaine in our Biochronomer system. It is designed to provide 24 to 36 hours of post-surgical pain relief and to minimize the use of morphine-like drugs (opioids) which are used extensively in post-surgical pain management. Opioids are associated with a wide range of side effects, such as nausea, sedation, dizziness, constipation, vomiting, urinary retention, and in some situations, life-threatening respiratory depression. We completed Phase 2 human clinical trials for APF112 in 2004, involving a total of approximately 100 patients undergoing surgery for repair of inguinal hernia. The first part of the trial was an open-label study in 12 patients. Results of this study indicate that the pharmacokinetic measurements demonstrated measurable blood levels of mepivacaine over a three-day period consistent with observations made in preclinical studies with APF112. No severe or serious adverse events were reported and wound healing in all patients was observed to be normal over a 30-day follow-up period. The second part of the Phase 2 trial was a blinded study involving 96 patients and compared two doses of APF112 with bupivacaine, the current standard treatment for post-surgical pain. The primary endpoint of the study was safety. Additional endpoints for the trial included a visual analog score of pain intensity, the standard means of measuring pain, and patient reduction in opioid pain medication. The safety and tolerability of APF112 as evaluated in both parts of the study were very good. The efficacy results were equivocal because no significant difference was shown between the two doses of APF112 and the standard of care in terms of pain scores as well as amount of rescue pain medication used. The mean Visual Analog Scale (VAS) pain scores in the standard of care group were unusually low at approximately 3, compared with previously published data of approximately 5, within the first 24 hours post surgery. A further Phase 2 trial using APF112 is being developed, and we are exploring corporate partnering opportunities before proceeding with this in order to focus our limited resources on APF530.

We have also entered into client-funded feasibility studies with several companies to develop a variety of products using our Biochronomer(TM) delivery systems. These products are being developed in the areas of ophthalmology, animal health care and device coatings. In general, these research and development arrangements provide for us to receive research and development fees from our collaborators. If they are concluded successfully, they could lead to licensing agreements under which a partner would pay for development costs and we would receive a license fee, research and development fees, milestone payments and a royalty upon a product's marketing clearance and commercialization.

In February 1997, we received FDA marketing clearance for our first pharmaceutical product, Retin-A Micro(R), which was based on the original patented Microsponge(R) technology, and which was licensed to Ortho Neutrogena, a member of the Johnson & Johnson family of companies. This product was launched in the United States in March 1997. Retin-A Micro was also launched in Canada in the third quarter of 2001. In May 2002, the FDA granted marketing clearance for a new low-dose 0.04% formulation of Retin-A Micro, which was launched in the U.S. in July 2002. We are entitled to receive royalties on the sales of these products over the life of the applicable patents which expire in 2016.

We licensed to Dermik Laboratories, a Sanofi-Aventis company, a Microsponge-based formulation incorporating 5-fluorouracil (5-FU) for the treatment of actinic keratoses, a precancerous skin condition. The product was launched in the first quarter of 2001 under the brand name Carac(TM). This product has a number of advantages over other topical therapies, including less irritation with shorter duration of therapy and reduced dosage frequency.

Until July 2000, we engaged in the development, manufacturing, and out-licensing of the aforementioned topical pharmaceutical products as well as a variety of cosmeceutical and toiletry products. In July 2000, we sold our cosmeceutical and toiletry product lines, together with certain technology rights to topical pharmaceuticals, to RP Scherer, a subsidiary of Cardinal Health. Under the sale agreement, we retained the rights to our topical prescription products, which are marketed by our corporate partners, Johnson & Johnson and Sanofi-Aventis, and on which we continue to receive royalties.

In February 2003, we sold the assets of our wholly-owned subsidiary, APS

Analytical Standards, Inc., to GFS Chemicals of Columbus, Ohio, for $2.1 million in cash and the right to receive royalties for the next five years.

The Company, founded in February 1983 as a California corporation under the name AMCO Polymerics, Inc., changed its name to Advanced Polymer Systems, Inc. in 1984 and was reincorporated in Delaware in 1987. Our name was changed to A.P. Pharma, Inc. in May 2001 to reflect the new pharmaceutical focus of the company.

APP TECHNOLOGY

We have made significant investment and progress in the development of bioerodible drug delivery systems. Specifically, we have developed two families of polymers, each with unique attributes. The first family is known collectively as poly(ortho esters) under the trade name Biochronomer(TM); polymers in the second family are known collectively as block copolymers of poly(ortho esters) and poly(ethylene glycol) under the trade name Bioerodimer(TM). The two polymer families are covered by US patent 5,968,543, issued October 19, 1999 and US patent 5,939,453, issued August 17, 1999. Both are broad composition of matter patents. A number of other patent applications have been filed.

The Biochronomer polymer is a poly(ortho ester) whose production is highly reproducible and kilo quantities of polymer have been produced according to Good Manufacturing Practices (GMP).

Current product development work takes advantage of the versatility of these materials, and is exemplified by forms that range from injectable gels into which drugs can be incorporated by a simple mixing procedure, to solid devices that can be fabricated at temperatures low enough to allow the incorporation of materials such as proteins that require mild fabrication conditions.

Our primary focus has been on advancing our Biochronomer technology, which is designed to release drugs at selected implantation sites such as at the site of a surgical procedure, under the skin, in joints, in the eye, or in muscle tissue. Key benefits of this technology include the ability to fabricate the poly(ortho ester) polymers into a variety of drug delivery forms as diverse as wafers, strands, microspheres and injectable gels to enable various means of administration into the body.

PRODUCTS

Ethical Pharmaceutical Products

We define ethical pharmaceutical products as prescription products that are promoted primarily through the medical profession. We are developing pharmaceutical product candidates that will require marketing clearance from the FDA before they can be sold in the United States. We believe that the benefits offered by our delivery systems will create valuable product differentiation and commercial advantages in large, profitable markets. Results from various preclinical and clinical studies confirm that this technology offers the potential to maintain or improve therapeutic efficacy and to reduce adverse drug side effects.

The following ethical dermatological products incorporating the Microsponge technology have already been developed and commercialized:

Retin-A Micro: In February 1997, we received FDA marketing clearance for Microsponge-entrapped tretinoin for improved acne treatment. Tretinoin has been marketed in the United States by Ortho Neutrogena (formerly Ortho Dermatological), a Johnson & Johnson ("J&J") subsidiary, under the brand name RETIN-A(R) since 1971. It has proven to be a highly effective topical acne medication. However, skin irritation among sensitive individuals can limit patient compliance with the prescribed therapy. We developed a new formulation of Retin-A containing Microsponge-entrapped tretinoin for acne treatment which was licensed to J&J. This patent-protected approach to drug delivery reduces the potentially irritating side effects of tretinoin. Ortho Dermatological began marketing this product in March 1997 under the brand name Retin-A Micro (R). Additionally, Ortho received FDA marketing clearance in the United States for a second Retin-A Micro formulation, a low-dose version, and launched the product in July 2002. Our formulation patents on these products continue until 2016.

Ortho launched this product in Canada during 2001 and has completed Phase 3 clinical trials in Europe.

Carac: In the fourth quarter of 2000, Dermik Laboratories, a Sanofi-Aventis

company, received U.S. marketing clearance for an APP-developed formulation containing Microsponge-entrapped 5-fluorouracil (5-FU) for the treatment of actinic keratoses. This product was launched under the trade name Carac(TM) in the first quarter of 2001. We receive royalties based on the sales of this product over the life of the applicable patents. In September 2003, a new formulation patent was issued by the U.S. Patent and Trademark office (USPTO) extending patent coverage for this use of our Microsponge formulation until 2021.

Products Under Development
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Our efforts in pharmaceutical markets include applications using our Biochronomer technology that are under development, as noted below.

Our lead product candidate, APF530, is designed to prevent acute and delayed chemotherapy-induced nausea and vomiting. A Phase 1 study has been successfully completed in the U.K. in which we evaluated 2.5 mg, 5 mg, 10 mg and 20 mg doses of granisetron. Preliminary results indicate that APF530 met its target kinetic profile in healthy volunteers. At the highest dose, the product showed meaningful plasma levels within one hour post dosing and these were maintained for up to five days. This mirrors the period for this condition during which patient relief is most required. A regulatory submission was filed with the Food and Drug Administration (FDA) early in 2005 and we expect to initiate a Phase 2 clinical trial in the first half of 2005 and to enter pivotal studies towards the end of 2005.

The first product candidate to incorporate the Biochronomer(TM) delivery system is APF112 which targets the management of pain in patients following surgery. The treatment goal is to provide 24 to 36 hours of localized post-surgical pain relief by delivering the drug mepivacaine directly to the surgical site. Mepivacaine is a well-known drug for localized pain relief, and it has an extensive safety protocol. APF112 is designed to prolong the anesthetic effect of mepivacaine and thus to minimize or eliminate the use of opioids (morphine-like drugs) which are currently used in the majority of surgical procedures as a means of managing post-operative pain despite unpleasant side effects - nausea, disorientation, sedation, constipation, vomiting, urinary retention and, in some situations, life-threatening respiratory depression. If efficacy in treating post-surgical pain can be demonstrated, we believe that there will be substantial potential for this product, as there are approximately 20 million surgical procedures performed annually in the U.S. for which the product could potentially be utilized.

Phase 2 clinical studies were conducted in surgeries for inguinal hernia repair during 2004 and although the safety and tolerability of APF112 were very good the efficacy results were equivocal with no significant difference between the two formulations of APF112 and the current standard of care. A second Phase 2 study is being developed which, with the financial support of a corporate partner, would evaluate a combination therapy using bupivacaine for immediate pain relief following surgery and APF112 for longer-term pain relief.

Other Products
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Analytical Standards. We initially developed microspheres (precursors to the Microsponge system) for use as a testing standard for gauging the purity of municipal drinking water.

In February 2003, we announced the sale of the assets of this subsidiary to GFS Chemicals, Inc. of Columbus, Ohio for $2.1 million in cash and the right to receive royalties for five years at rates ranging from 5% to 15% of sales of analytical standards products.

MARKETING
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A key part of our business strategy is to form collaborations with pharmaceutical partners. We have therefore negotiated fee-paying feasibility agreements with several pharmaceutical and biotechnology companies for the development of prescription products incorporating the Biochronomer delivery system. If they are concluded successfully, they could lead to licensing agreements.

In general, we grant limited marketing exclusivity in defined markets for defined periods to our partners. However, after development is completed and a partner commercializes a formulated product utilizing our delivery systems, we can exert only limited influence over the manner and extent of our partner's marketing efforts.

Our key marketing relationships currently involve only the Microsponge

delivery system for prescription products and are as follows:

Johnson & Johnson Inc. In May 1992, we entered into a development and license agreement with Ortho-McNeil Pharmaceutical Corporation, (a subsidiary of J&J ("Ortho")) related to tretinoin-based products incorporating our Microsponge technology. As part of the agreement, certain license fees and milestone payments were paid to us by Ortho. The license fees provided Ortho with exclusive distribution or license rights for all Ortho tretinoin products utilizing our Microsponge system. Ortho's exclusivity will continue as long as annual minimum royalty payments are made, governed by the life of the applicable patents owned by us through 2016.

In February 1997, we received FDA marketing clearance for the first product covered by this agreement, Microsponge-entrapped tretinoin. This product has been marketed by Ortho since March 1997 as Retin-A(R) Micro. We received a payment of $3,000,000 from Ortho upon receipt of the FDA approval, of which half is a milestone payment that was recognized as revenue in 1997 and half as prepaid royalties which were recorded as deferred revenues. Ortho pays us a royalty on product sales. In accordance with the licensing agreement, 25% of the royalties we earned was applied against deferred revenues after certain annual minimum royalty payments were met. The remaining balance of these deferred revenues was extinguished during 2004. Should certain minimum royalties not be achieved or paid, Ortho would lose its exclusivity and we would regain marketing rights to the retinoid products.

Dermik. In March 1992, we restructured our 1989 joint venture agreement with Dermik, a Sanfoi-Aventis company. As part of the agreement Sanofi-Aventis received certain exclusive marketing rights for the U.S. Product applications include a 5-FU treatment for actinic keratoses (precancerous skin lesions). In the fourth quarter of 1999, Dermik filed an NDA for this product and expanded its agreement with us to cover two additional indications, in return for milestone payments and royalties upon successful development. We received $500,000 on execution of this amendment representing a milestone payment of $250,000 and prepaid royalties of $250,000. In the fourth quarter of 2000 Dermik received FDA marketing clearance for the product, which was launched under the trade name Carac(TM) in the first quarter of 2001. In 2002, we recognized the prepaid royalties as revenues because Dermik decided not to pursue the two additional applications covered by the 1999 amendment and the rights reverted to us. Dermik's exclusivity relating to Carac will continue as long as annual minimum royalty payments are made, governed by the life of the applicable patents. In December 2003, a patent was issued by the USPTO extending patent coverage for this use of our Microsponge formulation until 2021.

GOVERNMENT REGULATION

Ethical Products

In order to clinically test, produce and sell products for human therapeutic use, mandatory procedures and safety evaluations established by the FDA and comparable agencies in foreign countries must be followed. The procedure for seeking and obtaining the required governmental clearances for a new therapeutic product includes preclinical animal testing to determine safety and efficacy, followed by human clinical testing. This can take many years and require substantial expenditures. In the case of third party agreements, we expect that our corporate partners will partially fund the testing and the approval process with guidance from us. We intend to seek the necessary regulatory approvals for our proprietary products as they are being developed.

PATENTS AND TRADE SECRETS

As part of our strategy to protect our current products and to provide a foundation for future products, we have filed a number of United States patent applications on inventions relating to the composition of a variety of polymers, specific products, product groups, and processing technology. We have also filed foreign patent applications on our polymer technology with the European Union, Japan, Australia, South Africa, Canada, Korea and Taiwan. We have a total of 17 issued United States patents and an additional 88 issued foreign patents. Currently, we have 33 pending patent applications worldwide. The patents on the Microsponge(R) system expire between October 2009 and September 2021. The patents on the bioerodible systems expire between January 2016 and November 2021.

Although we believe the bases for these patents and patent applications are sound, they are untested, and there is no assurance that they will not be successfully challenged. There can be no assurance that any patent previously issued will be of commercial value, that any patent applications

will result in issued patents of commercial value, or that our technology will not be held to infringe patents held by others.

We rely on unpatented trade secrets and know-how to protect certain aspects of our production technologies. Our employees, consultants, advisors and corporate partners have entered into confidentiality agreements with us. These agreements, however, may not necessarily provide meaningful protection for our trade secrets or proprietary know-how in the event of unauthorized use or disclosure. In addition, others may obtain access to, or independently develop, these trade secrets or know-how.

COMPETITION
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In the development of bioerodible poly(ortho esters) for implantation applications, there is competition from a number of other bioerodible systems, especially polymers based on lactic and glycolic acid and to a lesser extent, polyanhydrides. We believe that our proprietary bioerodible Biochronomer(TM) polymers have a number of important advantages. Among these are ease of manufacturing, ability to control both erosion times and mechanical properties, the simultaneous drug delivery and erosion process, resulting in complete polymer disappearance when all the drug has been delivered. Also, the polymer bioerodes with low acidity, thus potentially allowing the delivery of sensitive proteins and DNA.

The attribute of the second family of bioerodible polymers, the block copolymers of poly(ortho esters) and poly(ethylene glycols), named Bioerodimer, is that a hydrophobic (water-repelling) bioerodible segment can be connected to a water-soluble segment. There are other such polymers, but we believe that our proprietary material is superior because the hydrophobic poly(ortho ester) segment can greatly increase the efficiency of drug entrapment making transport to tumors much more effective.

HUMAN RESOURCES
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As of February 28, 2005, we had 38 full-time employees, 6 of whom hold PhDs. There were 30 employees engaged in research and development and quality control, and 8 working in finance, business development, human resources and administration.

We consider our relations with employees to be satisfactory. None of our employees is covered by a collective bargaining agreement.

AVAILABLE INFORMATION
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We make available free of charge on or through our Internet website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission. Our Internet website address is "www.appharma.com".

Item 2. PROPERTIES

We lease 26,067 square feet of laboratory, office and warehouse space in Redwood City, California. The annual rent expense for the Redwood City facility is approximately $463,000.

We occupied a production facility and warehouse in Lafayette, Louisiana that was sold to RP Scherer in July 2000. The construction of the facility in 1986 was financed primarily by 15-year, tax-exempt industrial development bonds. In 1995, we extinguished the bond liability through an "in-substance defeasance" transaction by placing United States government securities in an irrevocable trust to fund all future interest and principal payments. The defeased debt balance outstanding of $2,500,000 as of December 31, 2004 was repaid on January 25, 2005 using the proceeds from the maturities of the United States government securities held in the irrevocable trust.

Our existing research and development and administrative facilities are not yet being used at full capacity and management believes that these facilities are adequate and suitable for current and anticipated needs.

Item 3. LEGAL PROCEEDINGS

On October 22, 2003, Tristrata Technology, Inc. (Tristrata) filed an amended complaint joining A.P. Pharma, Inc. and other companies as defendants in Tristrata's action first filed July 12, 2002 against Cardinal Health, Inc. and others in the Federal District Court of Delaware. Tristrata's complaint alleged infringment of patents pertaining to alpha-hydroxyacids used in

cosmetics. On January 19, 2005 the parties agreed to final dismissal of all claims and counterclaims in the lawsuit resulting in no judgment against A.P. Pharma.

Item 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

None.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON STOCK RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Shares of the Company's common stock trade on the NASDAQ National Market, under the symbol APPA. As of February 28, 2005, there were 437 holders of record of the Company's common stock.

The Company has never paid cash dividends and does not anticipate paying cash dividends in the foreseeable future. The following table sets forth for the fiscal periods indicated, the range of high and low intra day sales prices for the Company's common stock on the NASDAQ National Market System.

2004	High	Low	2003	High	Low
First Quarter	$3.79	$2.15	First Quarter	$1.18	$0.84
Second Quarter	4.45	2.85	Second Quarter	1.96	1.00
Third Quarter	3.50	1.11	Third Quarter	2.45	1.38
Fourth Quarter	2.35	1.15	Fourth Quarter	3.15	2.02

See Note 8 "Stockholders' Equity" in the Notes to Consolidated Financial Statements contained in part II Item 8 of this Form 10-K concerning A.P. Pharma's equity compensation plans.

Item 6. SELECTED FINANCIAL DATA
(in thousands, except per share data)

For the Years Ended and as of December 31,	2004	2003	2002	2001	2000
Consolidated Statement of Operations Data					
Royalties	$ 4,972	$ 4,502	$ 4,026	$ 3,227	$ 2,081
Contract revenues	432	346	407	38	122
License fees	--	--	237	--	--
Total revenues	5,404	4,848	4,670	3,265	2,203
Expenses					
Research and development	11,495	8,421	6,414	7,107	3,432
General and administrative	3,225	3,039	3,309	3,488	3,150
Interest and other income and expense, net	224	404	658	1,192	546
Loss from continuing operations	(9,092)	(6,208)	(4,395)	(6,138)	(3,833)
Income (loss) from discontinued operations(1)	(133)	(57)	401	624	1,238
Gain on disposition of discontinued operations(2)	4	1,902	216	3,000	11,147
Net income (loss)	$(9,221)	$(4,363)	$(3,778)	$(2,514)	$ 8,552
Basic income (loss) per common share:					
Loss from continuing operations	$ (0.40)	$ (0.30)	$ (0.22)	$ (0.30)	$ (0.19)
Net income (loss)	$ (0.40)	$ (0.21)	$ (0.19)	$ (0.12)	$ 0.42
Diluted income (loss) per common share:					
Loss from continuing operations	$ (0.40)	(0.30)	$ (0.22)	$ (0.30)	$ (0.19)
Net income (loss)	$ (0.40)	$ (0.21)	$ (0.19)	$ (0.12)	$ 0.42
Weighted average common shares outstanding - basic	22,909	20,553	20,409	20,276	20,179
Weighted average common shares outstanding - diluted	22,909	20,553	20,409	20,276	20,213

(1) Income (loss) from discontinued operations represents the income (loss) attributable to our Analytical Standards division that was sold to GFS Chemicals on February 13, 2003, and the income (loss) attributable to our cosmeceutical and toiletries business that was sold to RP Scherer on July 25, 2000. See Note 10 "Discontinued Operations" in the Notes to Consolidated Financial Statements of Part II, Item 8 of this Form 10-K.

(2) Gain on disposition of discontinued operations in 2000 represents the gain on the sale of our cosmeceutical and toiletries business to RP Scherer on July 25, 2000, and in 2001 and 2002 represents the annual earnout income received from RP Scherer based on the performance of the business sold. The gain on disposition of discontinued operations in 2003 represents the gain on sale of our Analytical Standards division to GFS Chemicals on February 13, 2003. See Note 10 "Discontinued Operations" in the Notes to Consolidated Financial Statements of Part II, Item 8 of this Form 10-K.

Consolidated Balance Sheet Data

	December 31,				
	2004	2003	2002	2001	2000
Working capital	$12,636	$ 9,366	$13,989	$18,092	$20,111
Total assets	17,014	13,155	17,781	23,483	26,964
Long-term debt, excluding current portion	--	--	--	--	--
Stockholders' equity	14,154	11,263	15,459	19,173	21,159

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

We are a specialty pharmaceutical company focused on the development of ethical (prescription) pharmaceuticals utilizing our proprietary polymer-based drug delivery systems. Our primary focus is the development and commercialization of our bioerodible injectable and implantable systems under the trade name Biochronomer(TM). Initial target areas of application for our drug delivery technology include anti-nausea, pain management, inflammation, vaccines and ophthalmology applications. Our product development programs are funded by the sale of common stock in June 2004, royalties from topical products currently marketed by pharmaceutical partners, proceeds from the divestitures of our cosmeceutical and analytical standards product lines and be fees we receive from collaborative partners.

Except for statements of historical fact, the statements herein are forward-looking and are subject to a number of risks and uncertainties that could cause actual results to differ materially from the statements made. These include, among others, uncertainty associated with timely development, approval, launch and acceptance of new products, establishment of new corporate alliances, progress in research and development programs, and other risks described below or identified from time to time in our Securities and Exchange Commission filings.

Critical Accounting Policies and Estimates

The preparation of our financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. On an ongoing basis, we evaluate our estimates including those related to the useful lives of fixed assets, valuation allowances, impairment of assets, accrued clinical and preclinical expenses and contingencies. Actual results could differ materially from those estimates. The items in our financial statements requiring significant estimates and judgments are as follows:

Revenue Recognition

Our revenue arrangements with multiple deliverables are divided into separate units of accounting if certain criteria are met, including whether the delivered item has stand-alone value to the customer and whether there is

objective and reliable evidence of the fair value of the undelivered items. The consideration we receive is allocated among the separate units based on their respective fair values, and the applicable revenue recognition criteria are considered separately for each of the separate units. Advance payments received in excess of amounts earned are classified as deferred revenue until earned.

* Royalties

Contractually required minimum royalties are recorded ratably throughout the contractual period. Royalties in excess of minimum royalties are recognized as earned when the related product is shipped to the customer by our licensees based on information that we receive from our licensees.

* Contract Revenues

Generally, contract revenues relate to research and development arrangements that generally provide for our company to invoice research and development fees based on full-time equivalent hours for each project. Revenues from these arrangements are recognized as the related development costs are incurred. These revenues approximate the costs incurred.

* License Fees

We have licensing agreements that generally provide for us to receive periodic minimum payments, royalties, and/or non-refundable license fees. These licensing agreements typically require a non-refundable license fee and allow partners to sell our proprietary products in a defined field or territory for a defined period. The license agreements provide for us to earn future revenue through royalty payments. These non-refundable license fees are initially reported as deferred revenues and recognized as revenues over the estimated life of the product to which they relate as we have continuing involvement with licensees until the related product is discontinued or the related patents expire, whichever is earlier. Revenue recognized from deferred license fees is classified as license fees in the accompanying consolidated statements of operations. License fees received in connection with arrangements where we have no continuing involvement are recognized when the amounts are received or when collectibility is assured, whichever is earlier.

A milestone payment is a payment made to us by a third party or corporate partner upon the achievement of a predetermined milestone as defined in a legally binding contract. Milestone payments are recognized as license fees when the milestone event has occurred and we have completed all milestone related services such that the milestone payment is currently due and is non-refundable.

Clinical Trial Accruals

Our expenses related to clinical trials are based on estimates of the services received and efforts expended pursuant to contracts with multiple research institutions and clinical research organizations that conduct and manage clinical trials on our behalf. Since the invoicing related to these services does not always coincide with our financial statement close process, we must estimate the level of services performed and fees incurred in determining the accrued clinical trial costs. The financial terms of these agreements are subject to negotiation and variation from contract to contract and may result in uneven payment flows. Payments under the contracts depend on factors such as the successful enrollment of patients or achievement of certain events or the completion of portions of the clinical trial or similar conditions. Expenses related to clinical trials generally are accrued based on the level of patient enrollment and activity according to the protocol. We monitor patient enrollment levels and related activity to the extent possible and adjust our estimates accordingly. Historically these estimates have been accurate and no material adjustments have had to be made.

Stock Based Compensation

The preparation of the financial statement footnotes requires us to estimate the fair value of stock options granted to employees. While fair value may be readily determinable for awards of stock, market quotes are not available for long-term, nontransferable stock options because these instruments are not traded. We currently use the Black-Scholes option-pricing model to estimate the fair value of employee stock options. However, the Black-Scholes model was developed for use in estimating the fair value of traded options, which have no vesting restrictions and are fully transferable.

Option valuation models require the input of highly subjective assumptions, including but not limited to stock price volatility. Because our stock options have characteristics significantly different from those of traded options and changes to the subjective assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not provide a reliable single measure of the fair value of our employee stock options. We are currenly evaluating our option valuation methodologies and assumptions in light of the new accounting standard related to stock based compensation.

Results of Operations for the years ended December 31, 2004, 2003 and 2002

The following sets forth the consolidated statement of operations data and percentage changes as compared to the prior year (dollar amounts are presented in thousands):

	For the Year Ended December 31,			Annual % Change	
	2004	2003	2002	04/03	03/02
Royalties	$ 4,972	$4,502	$4,026	10%	12%
Contract revenues	432	346	407	25%	(15%)
License fees	--	--	237	--	(100%)
Total revenues	5,404	4,848	4,670	11%	4%
Expenses					
Research and development	11,495	8,421	6,414	37%	31%
General and administrative	3,225	3,039	3,309	6%	(8%)

Our revenues are derived principally from royalties, contract revenues and to a lesser extent, license fees. Under strategic alliance arrangements entered into with certain corporations, we may receive non-refundable upfront fees, milestone payments and royalties based on third party product sales.

The increase in royalties in 2004 from 2003 of $470,000 or 10%, to $4,972,000 related to a 10% increase in royalties earned on sales of Retin-A(R) Micro by Ortho Neutrogena, a Johnson and Johnson company, as well as a 12% increase in royalties earned on sales of Carac(TM), a topical prescription treatment for actinic keratoses that was launched in the first quarter of 2001 by our marketing partner, Dermik Laboratories, a Sanofi-Aventis company. The increase in royalties in 2003 from 2002 of $476,000 or 12%, to $4,502,000 related to a 21% increase in royalties earned on sales of Retin-A(R) Micro partially offset by a decrease in royalties earned on sales of Carac(TM). The increase in sales of Retin-A Micro was due primarily to the launch of a new low-dose formulation in July 2002 after FDA marketing clearance. Royalty income is expected to increase in 2005 assuming that sales for both underlying product lines increase and that prices are not eroded.

Contract revenues increased by $86,000 or 25% in 2004 compared with 2003 mainly due to the initiation of a new collaborative research and development arrangement in 2004. Contract revenues decreased in 2003 by $61,000 from 2002 as a result of fewer collaborative research and development arrangements.

License fees recognized in 2002 are attributed to the forfeiture by a partner of certain rights to proprietary Microsponge(R) formulation which resulted in the full recognition of the related unamortized deferred revenue balance of $237,000. No license fees were recognized in either 2004 or 2003.

Research and development expense increased in 2004 compared to 2003 by $3,074,000, or 37% to $11,495,000 due mainly to the completion in 2004 of Phase 2 clinical trials of APF112, our product candidate for post-surgical pain management which incorporates our Biochronomer(TM) drug delivery system. Additionally the phase 1 clinical study for APF530, our product candidate for the prevention of acute and delayed chemotherapy-induced nausea and vomiting, was conducted in 2004. Research and development expense increased in 2003 compared to 2002 by $2,007,000, or 31% to $8,421,000 due mainly to the initiation of the Phase 2 clinical trials of APF112 as well as costs associated with the manufacturing of GMP product for human clinical trials in 2003. Research and development expenses are expected to decrease in 2005 as we focus our limited resources solely on APF530.

The scope and magnitude of future research and development expenses are difficult to predict at this time given the number of studies that will need to be conducted for any of our potential products. In general, biopharmaceutical development involves a series of steps, beginning with identification of a potential target, and includes proof of concept in animals and Phase 1, 2 and 3 clinical studies in humans. Each step of this process is typically more expensive than the previous one, so success in development results in increasing expenditures. Our research and development expenses currently include costs for scientific personnel, animal studies, human clinical trials, supplies, equipment, consultants, overhead allocation and sponsored research at academic and research institutions.

Products in Development
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We have a number of product candidates in various stages of development. The following table sets forth the current opportunities for our own portfolio of product candidates, the compound selected, the delivery time and the status.

CURRENT OPPORTUNITIES

Product Portfolio	Drug	Market Size	Delivery Duration	Status
APF112 - Acute pain relief (surgical/ orthopedic)	Mepivacaine	$2 billion	Short-term	Phase 2
APF530 - Anti-nausea (chemo-therapy)	Granisetron	$2 billion	Short-term	Phase 2
APF328 - Anti-inflammatory	Meloxicam	$1.5 billion	Medium-term	Pre-IND

(surgical/ orthopedic)				
APF505 - Anti-inflammatory (osteoarthritis)	Meloxicam	$3.5 billion	Long-term	Pre-IND

In addition, several feasibility studies are ongoing with corporate collaborators in the areas of ophthalmology, animal health care and device coatings.

The major components of research and development expenses for 2004, 2003 and 2002 were as follows (in thousands):

	2004	2003	2002
Internal research and development costs	$ 5,315	$ 4,869	$ 4,542
External polymer development, clinical and preclinical programs	6,180	3,552	1,872
	$11,495	$ 8,421	$ 6,414

Internal general research and development costs include employee salaries and benefits, laboratory supplies, depreciation, and allocation of overhead. External polymer development on clinical and preclinical programs includes expenditures on technology and product development, preclinical and clinical evaluations, regulatory and toxicology consultants, and polymer manufacturing, all of which are performed on our behalf by third parties.

General and administrative expense increased in 2004 by $186,000 or 6% from 2003 due to an increase in professional fees primarily as a result of the new audit requirements under Sarbanes Oxley. General and administrative expense decreased in 2003 by $270,000 or 8% from 2002 due mainly to decreased investor relations, depreciation and travel and entertainment expense, partially offset by higher professional fees. General and administrative expense includes salaries and related expenses, professional fees, directors' fees, investor relations costs, insurance expense and overhead allocation. General and administrative expense is expected to remain constant in 2005.

Interest and other income and expense consist primarily of income earned on cash, cash equivalents and marketable securities. Interest income and other income and expense decreased in 2004 by $180,000 compared to 2003 due to a tax refund received in 2003 as well as lower interest rates on investments in 2004. The decrease in 2003 of $254,000 compared to 2002 was due mainly to reduced interest rates on reduced cash balances.

On February 13, 2003, we completed the sale of certain assets of our Analytical Standards division to GFS Chemicals, Inc. ("GFS"), a privately held company based in Columbus, Ohio. In this transaction, we received $2.1 million on closing, and are entitled to receive royalties on sales of Analytical Standards products for a period of five years at rates ranging from 15% to 5%. The net present value of the guaranteed minimum royalties is included in the gain on disposition of discontinued operations.

On July 25, 2000, we completed the sale of certain technology rights for our topical pharmaceutical and cosmeceutical product lines and associated assets ("cosmeceutical and toiletry business") to RP Scherer Corporation, a subsidiary of Cardinal Health, Inc. We received $25 million on closing and were entitled to receive further earnout amounts for the subsequent three years, the amounts of which were dependent on the performance of the business sold.

Under the terms of the agreement with RP Scherer, we guaranteed a minimum gross profit percentage on RP Scherer's combined sales of products to Ortho Neutrogena and Dermik ("Gross Profit Guaranty"). The guaranty period commenced on July 1, 2000 and ends on the earlier of July 1, 2010 or the end of two consecutive guaranty periods where the combined gross profit on sales to Ortho and Dermik equals or exceeds the guaranteed gross profit.

Income (loss) from discontinued operations represents the income (loss) attributable to our Analytical Standards division through the date of sale and the income (loss) attributable to our Analytical Standards division and our cosmeceutical and toiletries business. For the year 2004, the net loss from discontinued operations of $133,000 primarily related to the gross

profit guarantee owed under the RP Scherer agreement compared to $57,000 in 2003 which related to the gross profit guarantee offset by a recovery of bad debt and tax refund received. The income from discontinued operations in 2002 of $401,000 primarily consisted of the operations of the Analytical Standards division and other changes in reserves, offset by the gross profit guarantee.

The gain on disposition of discontinued operations recorded in 2003 of $1,902,000 relates to the gain on the sale of our Analytical Standards division compared with $216,000 in 2002 which primarily related to the net earnout income resulting from the sale of our cosmeceutical product lines in 2000.

Capital Resources and Liquidity
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Cash, cash equivalents and marketable securities increased by $4,112,000 to $13,596,000 at December 31, 2004 from $9,484,000 at December 31, 2003.

Net cash used in continuing operating activities for the years ended December 31, 2004, 2003 and 2002 was $7,842,000, $6,112,000 and $4,580,000, respectively. Net cash used in continuing operating activities relates primarily to funding net losses excluding the gain on disposition of discontinued operations and changes in deferred revenue offset by depreciation. The increase in net cash used in continuing operating activities for 2004 and 2003 was primarily due to increased research and development expenses resulting from the completion of the Phase 2 human clinical studies for APF112, our product candidate for the treatment of post-surgical pain as well as the completion of the Phase 1 clinical trial of APF530, our product candidate for the prevention of acute and delayed chemotherapy-induced nausea and vomiting.

The cash provided by discontinued operations of $99,000 in 2004 relates to the royalties received from GFS for sales of Analytical Standards products offset by severance payments made to former employees who were terminated as a result of the sale of the Analytical Standards division. The cash used in discontinued operations in 2003 and 2002 of $413,000 and $554,000, respectively, relates to cash used in Analytical Standards division operations, severance payments and payments of the gross profit guarantee to RP Scherer, partially offset by royalties received from GFS.

Net cash used in investing activities for the year ended December 31, 2004, was $1,256,000, compared with net cash provided by investing activities of $3,257,000 and $4,723,000 in the years ended December 31, 2003 and 2002. The proceeds received in 2003 of $2,142,000 related to the sale of our Analytical Standards division. The proceeds received in 2002 of $216,000 related to the earn-out received on the performance of the cosmeceutical business sold to RP Scherer.

Our financing activities provided us with $12,012,000, $83,000 and $75,000 for the years ended December 31, 2004, 2003 and 2002, respectively. The net cash provided by financing activities in 2004 primarily relates to the issuance of 4,153,335 shares of common stock at 3.00 per share in June 2004. The net cash provided by financing activities in 2003 and 2002 was primarily related to proceeds from issuances of shares under the Employee Stock Purchase Plan and stock option plans.

To date, we have financed our operations including technology and product research and development, primarily through royalties received on sales of Retin-A Micro and Carac, income from collaborative research and development fees, the proceeds received from the sales of our Analytical Standards division and our cosmeceutical and toiletry business, the sale of common stock in June 2004, and interest earned on short-term investments. Our existing cash and cash equivalents, marketable securities, collections of accounts receivable, together with interest income and other revenue-producing activities including royalties, license and option fees and research and development fees, are expected to be sufficient to meet our cash needs for at least the next year. It is possible that we will seek additional financing within this timeline through debt or equity financing, the sale of certain assets and technology rights, collaborative agreements or other arrangements.

Our future capital requirements will depend on numerous factors including, among others, royalties from sales of products of third party licensees; our ability to enter into collaborative research and development and licensing agreements; progress of product candidates in preclinical and clinical trials; investment in new research and development programs; time required to gain regulatory approvals; resources that we devote to self-funded products; potential acquisitions of technology, product candidates or businesses; and the costs of defending or prosecuting any patent opposition or litigation necessary to protect our proprietary technology.

If our capital resources are unable to meet our capital requirements, we will have to raise additional funds. We may be unable to raise sufficient additional capital when we need it or to raise capital on favorable terms. The sale of equity or convertible debt securities in the future may be dilutive to our stockholders, and debt financing arrangements may require us to pledge certain assets and enter into covenants that could restrict certain business activities or our ability to incur further indebtedness and may contain other terms that are not favorable to us or our stockholders. If we are unable to obtain adequate funds on reasonable terms, we may be required to curtail operations significantly or to obtain funds by entering into financing, supply or collaboration agreements on unattractive terms.

Below is a summary of fixed payments related to certain contractual obligations (in thousands). This table excludes amounts already recorded on our balance sheet as current liabilities at December 31, 2004.

	Total	Less Than 1 year	1-3 years	3-5 years	More Than 5 years
Operating Leases(1)	$2,954	$ 428	$ 940	$ 959	$ 627
Total	$2,954	$ 428	$ 940	$ 959	627

(1) See Note 7 "Commitments" in the Notes to Consolidated Financial Statements of Part II, Item 8 of this Form 10-K for more information.

Under the terms of the agreement with RP Scherer, we guaranteed a minimum gross profit percentage on RP Scherer's combined sales of products to Ortho Neutrogena and Dermik ("Gross Profit Guaranty"). The guaranty period commenced on July 1, 2000 and ends on the earlier of July 1, 2010 or the end of two consecutive guaranty periods where the combined gross profit on sales to Ortho and Dermik equals or exceeds the guaranteed gross profit. Combined payments for the Gross Profit Guaranty totaled $527,000 for the first four guaranty years. We expect the annual Gross Profit Guaranty payments to range from approximately $100,000 to $150,000 for the remainder of the guaranty period.

Reclassifications
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Certain reclassifications have been made to the prior year financial statements to conform with the presentation in 2004. Patent legal expenses in the prior years have been reclassified from research and development expense to general and administrative expense.

Off-Balance-Sheet Arrangements
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As of December 31, 2004, we did not have any off-balance-sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K.

Recent Accounting Pronouncements
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In December 2004, the Financial Accounting Standard Board ("FASB") issued SFAS 123R, Statement No. 123R "Share-Based Payment", which is a revision of FASB Statements No. 123 and 95". SFAS 123R requires all share-based payments to employees, including employee stock options, to be recognized as a cost in the financial statements based on their fair values. SFAS 123R must be adopted no later than July 1, 2005. This statement allows for two methods of adoption; (i) modified prospective or (ii) modified-retrospective. We will adopt SFAS 123R on July 1, 2005 using the modified-prospective method which requires the compensation cost for share-based payments to employees to be recognized based on their grant-date fair value beginning July 1, 2005. We are currently evaluating option valuation methodologies and assumptions in light of the new requirements under FAS 123R and do not yet know the impact that the adoption of SFAS 123R will have on the financial position or results of operations. Current estimates of option values using the Black-Scholes method may not be indicative of results from valuation methodologies ultimately adopted.

FACTORS THAT MAY AFFECT FUTURE RESULTS
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Our business is subject to various risks, including those described below. You should carefully consider these risk factors, together with all of the other information included in this Form 10-K. Any of these risks could materially adversely affect our business, operating results and financial condition.

OUR BIOERODIBLE DRUG DELIVERY SYSTEM BUSINESS IS AT AN EARLY STAGE OF DEVELOPMENT.

Our bioerodible drug delivery system business is at an early stage of development. Our ability to produce bioerodible drug delivery systems that progress to and through clinical trials is subject to, among other things:

- success with our research and development efforts;

- selection of appropriate therapeutic compounds for delivery;

- the required regulatory approval.

Successful development of delivery systems will require significant preclinical and clinical testing prior to regulatory approval in the United States and elsewhere. In addition, we will need to determine whether any potential products can be manufactured in commercial quantities at an acceptable cost. Our efforts may not result in a product that can be marketed. Because of the significant scientific, regulatory and commercial milestones that must be reached for any of our research programs to be successful, any program may be abandoned, even after significant resources have been expended.

WE WILL NEED ADDITIONAL CAPITAL TO CONDUCT OUR OPERATIONS AND TO DEVELOP OUR PRODUCTS AND OUR ABILITY TO OBTAIN THE NECESSARY FUNDING ON FAVORABLE TERMS IN THE FUTURE IS UNCERTAIN.

We will require additional capital resources in order to conduct our operations and develop our products. While we estimate that our existing capital resources, royalty income and interest income will be sufficient to fund our current level of operations for at least the next year based on current business plans, we cannot guarantee that this will be the case. The timing and degree of any future capital requirements will depend on many factors, including:

- scientific progress in our research and development programs;

- the magnitude and scope of our research and development programs;

- our ability to establish and maintain strategic collaborations or partnerships for research, development, clinical testing, manufacturing and marketing;

- our progress with preclinical and clinical trials;

- the time and costs involved in obtaining regulatory approvals;

- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims.

We intend to acquire additional funding through strategic collaborations, in the form of license fees, research and development fees and milestone payments. In the event that additional funds are obtained through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies, product candidates or products that we would otherwise seek to develop and commercialize ourselves. If sufficient funding is not available, we may be required to delay, reduce the scope of or eliminate one or more of our research or development programs, each of which could have a material adverse effect on our business.

IF WE ARE UNABLE TO RECRUIT AND RETAIN SKILLED EMPLOYEES, WE MAY NOT BE ABLE TO ACHIEVE OUR OBJECTIVES.

Retaining our current employees and recruiting qualified scientific personnel to perform future research and development work will be critical to our success. Competition is intense for experienced scientists, and we may not be able to recruit or retain sufficient skilled personnel to allow us to pursue collaborations and develop our products and core technologies to the extent otherwise possible.

WE ARE RELIANT ON SINGLE SOURCE THIRD PARTY CONTRACTORS FOR THE MANUFACTURE AND PRODUCTION OF RAW MATERIALS AND PRODUCT CANDIDATES.

We currently, and for the foreseeable future will, rely upon outside

contractors to manufacture, supply and package for us key intermediates, active pharmaceutical ingredients and formulated drug product for our product candidates. Our current dependence upon others for the manufacture of our raw materials and product candidates and our anticipated dependence upon others for the manufacture of any products that we may develop, may adversely affect our ability to develop our product candidates in a timely manner and may adversely affect future profit margins and our ability to commercialize any products that we may develop on a timely and competitive basis.

ENTRY INTO CLINICAL TRIALS WITH ONE OR MORE PRODUCTS MAY NOT RESULT IN ANY COMMERCIALLY VIABLE PRODUCTS.

We do not expect to generate any significant revenues from product sales for a period of several years. We may never generate revenues from product sales or become profitable because of a variety of risks inherent in our business, including risks that:

- clinical trials may not demonstrate the safety and efficacy of our products;

- completion of clinical trials may be delayed, or costs of clinical trials may exceed anticipated amounts;

- we may not be able to obtain regulatory approval of our products, or may experience delays in obtaining such approvals;

- we and our licensees may not be able to successfully market our products.

BECAUSE WE OR OUR COLLABORATORS MUST OBTAIN REGULATORY APPROVAL TO MARKET OUR PRODUCTS IN THE UNITED STATES AND FOREIGN JURISDICTIONS, WE CANNOT PREDICT WHETHER OR WHEN WE WILL BE PERMITTED TO COMMERCIALIZE OUR PRODUCTS.

Federal, state and local governments in the United States and governments in other countries have significant regulations in place that govern many of our activities. The preclinical testing and clinical trials of the products that we develop ourselves or that our collaborators develop are subject to government regulation and may prevent us from creating commercially viable products from our discoveries. In addition, the sale by us or our collaborators of any commercially viable product will be subject to government regulation from several standpoints, including the processes of:

- manufacturing;

- - labeling;

- distributing;

- advertising and promoting; and

- selling and marketing.

We may not obtain regulatory approval for the products we develop and our collaborators may not obtain regulatory approval for the products they develop. Regulatory approval may also entail limitations on the indicated uses of a proposed product.

The regulatory process, particularly for biopharmaceutical products like ours, is uncertain, can take many years and requires the expenditure of substantial resources. Any product that we or our collaborative partners develop must receive all relevant regulatory agency approvals or clearances, if any, before it may be marketed in the United States or other countries. In particular, human pharmaceutical therapeutic products are subject to rigorous preclinical and clinical testing and other requirements by the Food and Drug Administration in the United States and similar health authorities in foreign countries. The regulatory process, which includes extensive preclinical testing and clinical trials of each product in order to establish its safety and efficacy, is uncertain, can take many years and requires the expenditure of substantial resources.

Data obtained from preclinical and clinical activities is susceptible to varying interpretations that could delay, limit or prevent regulatory agency approvals or clearances. In addition, delays or rejections may be encountered as a result of changes in regulatory agency policy during the period of product development and/or the period of review of any application for regulatory agency approval or clearance for a product. Delays in obtaining regulatory agency approvals or clearances could:

- significantly harm the marketing of any products that we or our collaborators develop;

- impose costly procedures upon our activities or the activities of our collaborators;

- diminish any competitive advantages that we or our collaborative partners may attain; or

- adversely affect our ability to receive royalties and generate revenues and profits.

In addition, the marketing and manufacturing of drugs and biological products are subject to continuing FDA review, and later discovery of previously unknown problems with a product, its manufacture or its marketing may result in the FDA requiring further clinical research or restrictions on the product or the manufacturer, including withdrawal of the product from the market.

WE DEPEND ON OUR COLLABORATORS TO HELP US COMPLETE THE PROCESS OF DEVELOPING AND TESTING OUR PRODUCTS AND OUR ABILITY TO DEVELOP AND COMMERCIALIZE PRODUCTS MAY BE IMPAIRED OR DELAYED IF OUR COLLABORATIVE PARTNERSHIPS ARE UNSUCCESSFUL.

Our strategy for the development, clinical testing and commercialization of our products requires entering into collaborations with corporate partners, licensors, licensees and others. We are dependent upon the subsequent success of these other parties in performing their respective responsibilities and the cooperation of our partners. Our collaborators may not cooperate with us or perform their obligations under our agreements with them. We cannot control the amount and timing of our collaborators' resources that will be devoted to our research activities related to our collaborative agreements with them. Our collaborators may choose to pursue existing or alternative technologies in preference to those being developed in collaboration with us.

Under agreements with collaborators, we may rely significantly on them, among other activities, to:

- fund research and development activities with us;

- pay us fees upon the achievement of milestones; and

- market with us any commercial products that result from our collaborations.

OUR RELIANCE ON THE RESEARCH ACTIVITIES OF OUR NON-EMPLOYEE SCIENTIFIC ADVISORS AND OTHER RESEARCH INSTITUTIONS, WHOSE ACTIVITIES ARE NOT WHOLLY WITHIN OUR CONTROL, MAY LEAD TO DELAYS IN TECHNOLOGICAL DEVELOPMENTS.

We have relationships with scientific advisors at academic and other institutions, some of whom conduct research at our request. These scientific advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. We have limited control over the activities of these advisors and, except as otherwise required by our collaboration and consulting agreements, can expect only limited amounts of their time to be dedicated to our activities. If our scientific advisors are unable or refuse to contribute to the development of any of our potential discoveries, our ability to generate significant advances in our technologies will be significantly harmed.

THE LOSS OF KEY PERSONNEL COULD SLOW OUR ABILITY TO CONDUCT RESEARCH AND DEVELOP PRODUCTS.

Our future success depends to a significant extent on the skills, experience and efforts of our executive officers and key members of our scientific staff. We may be unable to retain our current personnel or attract or assimilate other highly qualified management and scientific personnel in the future. The loss of any or all of these individuals could harm our business and might significantly delay or prevent the achievement of research, development or business objectives.

WE FACE INTENSE COMPETITION FROM OTHER COMPANIES.

Most or all of the products we could develop or commercialize will face competition from different therapeutic agents intended for treatment of the same indications or from other products incorporating drug delivery technologies. The competition potentially includes all of the pharmaceutical and drug delivery companies in the world. Many of these pharmaceutical companies have more financial resources, technical staff and manufacturing and marketing capabilities than we do. To the extent that we develop or market products incorporating drugs that are off-patent, or are being developed by multiple companies, we will face competition from other companies developing and marketing similar products.

Pharmaceutical companies are increasingly using advertising, including direct-to-consumer advertising, in marketing their products. The costs of such advertising are very high and are increasing. It may be difficult for our company to compete with larger companies investing greater resources in these marketing activities.

Other pharmaceutical companies are aggressively seeking to obtain new products by licensing products or technology from other companies. We will be competing to license or acquire products or technology with companies with far greater financial and other resources.

INABILITY TO OBTAIN SPECIAL MATERIALS COULD SLOW DOWN OUR RESEARCH AND DEVELOPMENT PROCESS.

Some of the critical materials and components used in our developed products are sourced from a single supplier. An interruption in supply of a key material could significantly delay our research and development process.

Special materials must often be manufactured for the first time for use in drug delivery systems, or materials may be used in the systems in a manner different from their customary commercial uses. The quality of materials can be critical to the performance of a drug delivery system, so a reliable source of a consistent supply of materials is important. Materials or components needed for our drug delivery systems may be difficult to obtain on commercially reasonable terms, particularly when relatively small quantities are required, or if the materials traditionally have not been used in pharmaceutical products.

PATENTS AND OTHER INTELLECTUAL PROPERTY PROTECTION MAY BE DIFFICULT TO OBTAIN OR INEFFECTIVE.

Patent protection generally has been important in the pharmaceutical industry. Our existing patents may not cover future products, additional patents may not be issued, and current patents or patents issued in the future may not provide meaningful protection or prove to be of commercial benefit.

In the United States, patents are granted for specified periods of time. Some of our earlier patents have expired, or will expire, over the next several years.

Other companies may successfully challenge our patents in the future. Others may also challenge the validity or enforceability of our patents in litigation. If any challenge is successful, other companies may then be able to use the invention covered by the patent without payment. In addition, if other companies are able to obtain patents that cover any of our technologies or products, we may be subject to liability for damages and our activities could be blocked by legal action unless we can obtain licenses to those patents.

In addition, we utilize significant unpatented proprietary technology and rely on unpatented trade secrets and proprietary know-how to protect certain aspects of our products and technologies and the methods used to manufacture them. Other companies have or may develop similar technology which will compete with our technology.

OUR ROYALTY REVENUES COULD DECLINE.

Our royalty revenues in future periods could vary significantly. Major factors which could have an effect on our royalty revenues include, but are not limited to:

- our partners' decisions about amounts and timing of advertising support for Retin-A Micro and Carac.

- our partners' decisions about other promotion and marketing support for Retin-A Micro and Carac.

- the timing of approvals for new product applications both in the United States and abroad.

- the expiration or invalidation of patents.

- decreases in licensees' sales of product due to competition, manufacturing difficulties or other factors that affect sales of product, including regulatory restrictions on the advertising of pharmaceutical products.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Our exposure to market rate risk for changes in interest rates relates primarily to our investment portfolio. We do not use derivative financial

instruments. We manage our interest rate risk by maintaining an investment portfolio primarily consisting of debt instruments of high credit quality and relatively short average maturities. We also manage our interest rate risk by maintaining sufficient cash and cash equivalents such that we are typically able to hold our investments to maturity. At December 31, 2004 and 2003, respectively, our cash equivalents and marketable securities include corporate and other debt securities as follows: (in thousands)

	December 31,	
	2004	2003
Available-for-sale:		
Effective maturity of less than 3 months	$ 2,228	$ 14
Due after 3 months and less than 1 year	10,486	8,665
Due after 1 year and less than 2 years	--	721
Total Available for Sale	$12,714	$ 9,400

Notwithstanding our efforts to manage interest rate risks, there can be no assurances that we will be adequately protected against the risks associated with interest rate fluctuations.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
A.P. Pharma, Inc.

We have audited the accompanying consolidated balance sheets of A.P. Pharma, Inc. as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2004. Our audits also included the financial statement schedule listed in the Index at Item 15(a)2. These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board(United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of A.P. Pharma, Inc. at December 31, 2004 and 2003, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2004, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of A.P. Pharma, Inc's. internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 11, 2005 expressed an unqualified opinion theron.

/s/ERNST & YOUNG LLP

Palo Alto, California
March 11, 2005

A.P. Pharma, Inc.
Consolidated Balance Sheets
(in thousands except par value and shares)

	December 31,	
	2004	2003
Assets		
Current Assets:		
Cash and cash equivalents	$ 3,110	$ 97
Marketable securities	10,486	9,387
Accounts receivable less allowance for doubtful accounts of $0 at December 31, 2004 and 2003	1,506	1,340
Prepaid expenses and other current assets, less allowance for doubtful note receivable of $394 and $413 at December 31, 2004 and 2003, respectively	394	434
Total current assets	15,496	11,258
Property and equipment, net	1,235	1,430

Other long-term assets	283	467
Total Assets	$ 17,014	$ 13,155
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 697	$ 476
Accrued expenses	2,003	1,173
Accrued disposition costs	160	53
Deferred revenue	--	190
Total current liabilities	2,860	1,892
Commitments and Contingencies (Note 7)		
Stockholders' Equity:		
Preferred stock, 2,500,000 shares authorized; none issued or outstanding at December 31, 2004 and 2003	--	--
Common stock, $.01 par value, 50,000,000 shares authorized; 25,033,919 and 20,641,924 issued and outstanding at December 31, 2004 and 2003, respectively	250	206
Additional paid-in capital	98,739	86,638
Accumulated deficit	(84,819)	(75,598)
Accumulated other comprehensive income (loss)	(16)	17
Total Stockholders' Equity	14,154	11,263
Total Liabilities and Stockholders' Equity	$ 17,014	$ 13,155

See accompanying notes to consolidated financial statements.

A.P. Pharma, Inc.
Consolidated Statements of Operations
(in thousands except per share data)

	Year Ended December 31,		
	2004	2003	2002
Revenues			
Royalties	$ 4,972	$ 4,502	$ 4,026
Contract revenues	432	346	407
License fees	--	--	237
Total revenues	5,404	4,848	4,670
Expenses			
Research and development	11,495	8,421	6,414
General and administrative	3,225	3,039	3,309
Operating loss	(9,316)	(6,612)	(5,053)
Interest income	202	251	590
Other income, net	22	153	68
Loss from continuing operations	(9,092)	(6,208)	(4,395)
Income (loss) from discontinued operations	(133)	(57)	401
Gain on disposition of discontinued operations, net of taxes	4	1,902	216
Net loss	$(9,221)	$(4,363)	$(3,778)
Basic and diluted loss per share:			
Loss from continuing operations	$ (0.40)	$ (0.30)	$ (0.22)
Net loss	$ (0.40)	$ (0.21)	$ (0.19)
Weighted average common shares outstanding - basic and diluted	22,909	20,553	20,409

See accompanying notes to consolidated financial statements.

A.P. Pharma, Inc.
Consolidated Statements of Stockholders' Equity and Comprehensive Loss
(in thousands)

For the Years Ended December 31, 2004, 2003 and 2002

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income(Loss)	Stockholders' Equity
Balance, December 31, 2001	20,357	$203	$86,188	$(67,457)	$ 238	$19,172
Comprehensive loss:						
Net loss	--	--	--	(3,778)	--	(3,778)
Net unrealized loss on marketable securities	--	--	--	--	(162)	(162)
Comprehensive loss						(3,940)
Fair value of common stock issued to directors for services and restricted stock awards	47	1	129	--	--	130
Expenses associated with stock options granted to non-employees	--	--	22	--	--	22
Common stock issued to employees under the Employee Stock Purchase Plan	63	1	74	--	--	75
Balance, December 31, 2002	20,467	$205	$86,413	$(71,235)	$ 76	$15,459
Comprehensive loss:						
Net loss	--	--	--	(4,363)	--	(4,363)
Net unrealized loss on marketable securities	--	--	--	--	(59)	(59)
Comprehensive loss						(4,422)
Common stock issued upon exercise of stock options	14	--	22	--	--	22
Fair value of common stock issued to directors for services	86	1	112	--	--	113
Expenses associated with stock options granted to non-employees	--	--	30	--	--	30
Common stock issued to employees under the Employee Stock Purchase Plan	75	--	61	--	--	61
Balance, December 31, 2003	20,642	$206	$86,638	$(75,598)	$ 17	$11,263

Comprehensive loss:						
Net loss				(9,221)		(9,221)
Net unrealized loss on marketable securities	--	--	--	--	(33)	(33)
Comprehensive loss						(9,254)
Common stock issuance, net of issuance costs	4,153	41	11,715	--	--	11,756
Common stock issued upon exercise of stock options	69	1	150	--	--	151
Fair value of common stock issued to directors for services	52	1	116	--	--	117
Expenses associated with stock options granted to non-employees	--	--	16	--	--	16
Common stock issued to employees under the Employee Stock Purchase Plan	118	1	104	--	--	105
Balance, December 31, 2004	25,034	$250	$98,739	$(84,819)	$ (16)	$14,154

See accompanying notes to consolidated financial statements.

A.P. Pharma, Inc.
Consolidated Statements of Cash Flows (in thousands)

	For the Year Ended December 31,		
	2004	2003	2002
Cash flows from operating activities:			
Net loss	$ (9,221)	$ (4,363)	$ (3,778)
Adjustments to reconcile net loss to net cash used in operating activities:			
Loss (income) from discontinued operations	133	57	(401)
Gain on disposition of discontinued operations	(4)	(1,902)	(216)
Gain on sale of marketable securities	(2)	(1)	(81)
Depreciation and amortization	381	432	449
Provision for (recovery of) note receivable	(18)	(24)	66
Stock-based compensation	133	143	152
Amortization of premium/discount and accretion of marketable securities	(67)	28	22
Loss on retirements and disposals of fixed assets	7	16	3
Changes in operating assets and liabilities:			
Accounts receivable	(287)	(122)	(53)
Prepaid expenses and other	58	(130)	254
Other long-term assets	184	(277)	26
Accounts payable	221	209	(54)
Accrued expenses	830	227	(464)
Deferred revenue	(190)	(405)	(505)
Net cash used in continuing operating activities	(7,842)	(6,112)	(4,580)
Cash provided by (used in) used in discontinued operations	99	(413)	(554)
Net cash used in operating activities	(7,743)	(6,525)	(5,134)
Cash flows from investing activities:			
Proceeds from disposition of discontinued operations	--	2,142	216
Purchases of property and equipment	(193)	(251)	(428)
Purchases of marketable securities	(17,318)	(6,712)	(12,563)
Maturities of marketable securities	14,065	6,832	8,039
Sales of marketable securities	2,190	1,246	9,459
Net cash (used in) provided by investing activities	(1,256)	3,257	4,723
Cash flows from financing activities:			
Proceeds from the issuance of common stock, net of issuance costs	11,756	--	--
Proceeds from the exercise of common stock options	151	22	--
Proceeds from issuance of shares under the Employee Stock Purchase Plan	105	61	75
Net cash provided by financing activities	12,012	83	75
Net decrease in cash and cash equivalents	3,013	(3,185)	(336)
Cash and cash equivalents at the beginning of the year	97	3,282	3,618
Cash and cash equivalents at the end of the year	$ 3,110	$ 97	$ 3,282
Supplemental Cash Flow Data:			
Cash paid for interest	$ 5	$ 4	$ --

See accompanying notes to consolidated financial statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2004, 2003 AND 2002

Note 1 Business

A.P. Pharma, Inc. (APP, the Company, we, our, or us) is developing patented polymer-based delivery systems to enhance the safety and effectiveness of pharmaceutical compounds. New products and technologies under development include bioerodible polymers for injectable and implantable drug delivery. Projects are also conducted under feasibility and development arrangements with pharmaceutical and biotechnology companies.

On July 25, 2000, we completed the sale of certain technology rights for our topical pharmaceutical and cosmeceutical product lines and other assets ("cosmeceutical and toiletry business") to RP Scherer Corporation, a subsidiary of Cardinal Health, Inc. As a result of this transaction, our Consolidated Statements of Operations reflect the receipt of certain earnout payments and the payment of certain contractual obligations in the gain from disposition of discontinued operations (see Note 10).

On February 13, 2003, we completed the sale of our Analytical Standard division to GFS Chemicals, Inc. ("GFS"), a privately held company based in Columbus, Ohio. In this transaction, we received $2.1 million and are entitled to receive royalties on sales of Analytical Standards products of 15% for the first year, 10% for the second through fourth years, and 5% for the fifth year. The net present value of the guaranteed minimum royalties is included in the gain on disposition of discontinued operations (see Note 10).

Note 2 Summary of Significant Accounting Policies

Basis of Presentation

The consolidated financial statements include the financial statements of the Company and its wholly-owned subsidiary, APS Analytical Standards, Inc. (Analytical Standards) through the date of sale (February 13, 2003). All significant intercompany balances and transactions have been eliminated in consolidation.

Cash Equivalents and Marketable Securities

We consider all short-term investments that have original maturities of less than three months to be cash equivalents. Investments with effective maturities of three months and longer are classified as marketable securities. Investments consist primarily of commercial paper, bankers' acceptances, master notes and corporate debt securities. We have classified all our investments in certain debt and equity securities as "available-for-sale", and, therefore, they are recorded at fair value with unrealized gains and losses reported as a separate component of stockholders' equity. If the fair value of a security is below its carrying value for each trading day for six consecutive months or if its decline is due to a significant adverse event, the impairment is considered to be other-than-temporary. Realized gains and losses and declines in fair value that are deemed to be other-than-temporary are reflected in the statement of operations. The cost of securities sold is based on the specific identification method.

Financial Instruments

The carrying values of the Company's financial instruments, including marketable securities, accounts receivable and accrued liabilities, approximate their respective fair values.

Allowance for Note Receivable

An allowance was recorded for a note receivable at such time as management determined that collection was not reasonably assured. Interest income under the terms of note receivable agreement is recorded when cash is received or collectibility is reasonably assured. The note receivable, net of the related allowance, is included in prepaid expenses and other current assets in the accompanying balance sheet.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation.

Depreciation is computed using the straight-line method over the estimated useful lives of the assets as follows: equipment and machinery, 3 to 5 years; furniture and fixtures, 5 years; and leasehold improvements, over the shorter of the respective lease terms or the respective useful lives of the leasehold improvements.

Long-Lived Assets

As circumstances dictate, we evaluate whether changes have occurred that would require revision of the remaining estimated lives of recorded long-lived assets or that render those assets impaired. Recoverability of assets to be held and used is determined by comparing the undiscounted net cash flows of long-lived assets to their respective carrying values. If such assets are considered to be impaired, the amount of impairment to be recognized is measured based on the projected discounted cash flows using an appropriate discount rate.

Stock-Based Compensation

We have elected to account for stock-based compensation related to employees using the intrinsic value method. Accordingly, except for stock options issued to non-employees and restricted stock awards to employees and directors, no compensation cost has been recognized for our stock option plans and stock purchase plan. Compensation related to options granted to non-employees is periodically remeasured as earned.

In accordance with FAS No. 123, "Accounting for Stock-Based Compensation," as amended by FAS No. 148, "Accounting for Stock-Based Compensation-Transition and Disclosure," we have provided, below, the pro forma disclosures of the effect on net loss and net loss per share as if FAS No. 123 had been applied in measuring compensation expense for all periods presented (in thousands) (see Note 8 "Stockholders' Equity"):

	2004	2003	2002
Net loss - as reported	$(9,221)	$(4,363)	$(3,778)
Deduct:			
Stock-based employee compensation expense determined under FAS 123	(400)	(397)	(601)
Net loss - pro-forma	$(9,621)	$(4,760)	$(4,379)
Basic and diluted net loss per common share - as reported	$ (0.40)	$ (0.21)	$ (0.19)
Basic and diluted net loss per common share - pro-forma	$ (0.42)	$ (0.23)	$ (0.21)

Recent Accounting Pronouncements

In December 2004, the Financial Accounting Standard Board ("FASB") issued SFAS 123R, Statement No. 123R "Share-Based Payment", which is a revision of FASB Statements No. 123 and 95". SFAS 123R requires all share-based payments to employees, including employee stock options, to be recognized as a cost in the financial statements based on their fair values. SFAS 123R must be adopted no later than July 1, 2005. This statement allows for two methods of adoption; (i) modified prospective or (ii) modified-retrospective. We will adopt SFAS 123R on July 1, 2005 using the modified-prospective method which requires the compensation cost for share-based payments to employees to be recognized based on their grant-date fair value beginning July 1, 2005. We are currently evaluating option valuation methodologies and assumptions in light of the new requirements under FAS 123R and do not yet know the impact that the adoption of SFAS 123R will have on the financial position or results of operations. Current estimates of option values using the Black-Scholes method may not be indicative of results from valuation methodologies ultimately adopted.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to

make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Estimates were made relating to useful lives of fixed assets, valuation allowances, impairment of assets and accruals. Actual results could differ materially from those estimates.

Revenue Recognition
- -------------------

Our revenue arrangements with multiple deliverables are divided into separate units of accounting if certain criteria are met, including whether the delivered item has stand-alone value to the customer and whether there is objective and reliable evidence of the fair value of the undelivered items. The consideration we receive is allocated among the separate units based on their respective fair values, and the applicable revenue recognition criteria are considered separately for each of the separate units. Advance payments received in excess of amounts earned are classified as deferred revenue until earned.

Royalties
- ---------

Royalties from licenses are based on third-party sales of licensed products or technologies and recorded as earned in accordance with contract terms when third-party results can be reliably determined and collectibility is reasonably assured.

Generally, contractually required minimum royalties are recorded ratably throughout the contractual period. Royalties in excess of minimum royalties are recognized as earned when the related product is shipped to the end customer by our licensees based on information provided to us by our licensees.

Contract Revenues
- -----------------

Contract revenues also relate to research and development arrangements that generally provide for the company to invoice research and development fees based on full-time equivalent hours for each project. Revenues from these arrangements are recognized as the related development costs are incurred. These revenues approximate the costs incurred.

License Fees
- ------------

We have licensing agreements that generally provide for periodic minimum payments, royalties, and/or non-refundable license fees. These licensing agreements typically require a non-refundable license fee and allow our partners to sell our proprietary products in a defined field or territory for a defined period. The license agreements provide for APP to earn future revenue through royalty payments. These non-refundable license fees are initially reported as deferred revenues and recognized as revenues over the estimated life of the product to which they relate as we have continuing involvement with licensees until the related product is discontinued or the related patents expire, whichever is earlier. Revenue recognized from deferred license fees is classified as license fees in the accompanying consolidated statements of operations. License fees received in connection with arrangements where we have no continuing involvement are recognized as license fees when the amounts are received or when collectibility is assured, whichever is earlier. No such fees were recorded during the years ended December 31, 2004 and 2003.

A milestone payment is a payment made by a third party or corporate partner to us upon the achievement of a predetermined milestone as defined in a legally binding contract. Milestone payments are recognized as license fees when the milestone event has occurred and we have completed all milestone related services such that the milestone payment is currently due and is non-refundable. No such fees were recorded during the years ended December 31, 2004 and 2003.

Research and Development
- -------------------------

Research and development consists of costs incurred for Company-sponsored and collaborative research and development expenses. These costs consist primarily of employee salaries and other personnel-related expenses, facility-related expenses, lab consumables, polymer development manufacturing, clinical and pre-clinical related services performed by clinical research organizations, research institutions and other outside service providers.

The filing of an IND and additional clinical trials of APF530 will have a significant effect on the Company's research and development expenses. Expenses related to clinical trials generally are accrued based on the level of patient enrollment and activity according to the protocol. The Company monitors patient enrollment levels and related activity to the extent possible and adjusts estimates accordingly.

Research and development expenses under collaborative agreements approximate the revenue recognized, excluding milestone and up-front payments received under such arrangements.

Net Loss Per Share

Basic and diluted net loss per share is computed based on the weighted-average number of common shares outstanding. Diluted net loss per share is not presented separately as the Company is in a net loss position and including potentially dilutive securities in the net loss per share computation would be anti-dilutive. See Note 9 "Net Loss Per Share".

Concentrations of Credit Risk

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash equivalents, short-term investments and trade accounts receivable. We invest excess cash in a variety of high grade short-term, interest-bearing securities. This diversification of risk is consistent with our policy to ensure safety of principal and maintain liquidity.

Approximately 96% and 80% of the receivables were concentrated with two customers in the pharmaceutical industry as of December 31, 2004 and 2003, respectively. Approximately 92%, 93% and 91% of total revenue were concentrated with two customers for the years ended December 31, 2004, 2003 and 2002. To reduce credit risk, we perform ongoing credit evaluations of our customers' financial condition. We do not generally require collateral for customers with accounts receivable balances.

Segment and Geographic Information

Our operations are confined to a single business segment, the design and commercialization of polymer technologies for pharmaceutical and other applications. Substantially all of our revenues are derived from customers within the United States.

Reclassifications

Certain reclassifications have been made to the prior year financial statements to conform with the presentation in 2004. Patent legal expenses in the prior years have been reclassified from research and development expense to general and administrative expense.

Note 3 Cash Equivalents and Marketable Securities

We consider all of our investments in debt and equity securities as available-for-sale and, accordingly, we have recorded these investments at fair value. Realized gains totaled $2,000, $1,000 and $81,000 for the years ended December 31, 2004, 2003 and 2002, respectively. There were no realized losses for the years ended December 31, 2004, 2003 and 2002.

At December 31, 2004 and 2003, the amortized cost and estimated market value of investments in debt securities and cash are set forth in the tables below:

	December 31, 2004 (in thousands)			
	Cost	Unrealized Gains	Unrealized Losses	Estimated Market Value
Available-for-sale:				
Corporate debt securities	$ 2,955	$ --	$ (7)	$ 2,948
Asset-backed securities	94	--	--	94
Government debt securities	7,750	--	(9)	7,741

Other debt securities	1,931	--	--	1,931
Total available-for-sale	12,730	--	(16)	12,714
Cash	882	--	--	882
Totals	$13,612	$ --	$(16)	$13,596

	December 31, 2003 (in thousands)			
	Cost	Unrealized Gains	Unrealized Losses	Estimated Market Value
Available-for-sale:				
Corporate debt securities	$3,354	$10	$--	$3,364
Asset-backed securities	2,006	6	--	2,012
Government debt securities	2,015	2	(1)	2,016
Other debt securities	2,008	--	--	2,008
Total available-for-sale	9,383	18	(1)	9,400
Cash	84	--	--	84
Totals	$9,467	$18	$(1)	$9,484

The table below summarizes fair value disclosures at December 31 (in thousands):

	2004		2003	
	Cost	Fair Value	Cost	Fair Value
Cash	$ 882	$ 882	$ 84	$ 84
Cash equivalents	2,228	2,228	14	14
Marketable securities	10,502	10,486	9,369	9,386
Totals	$13,612	$13,596	$ 9,467	$ 9,484

The cost and estimated fair value of available-for-sale debt securities as of December 31, 2004, by contractual maturity, consisted of the following (in thousands):

	Cost	Estimated Market Value
Available-for-sale:		
Due in one year or less	$12,730	$12,714
Total available-for sale	12,730	12,714
Cash	882	882
Totals	$13,612	$13,596

Note 4 Property and Equipment

Property and equipment consist of the following:

	December 31, (in thousands)

	2004	2003
Leasehold improvements	$ 1,359	$ 1,359
Furniture and equipment	2,373	2,423
Total property and equipment	3,732	3,782
Accumulated depreciation and amortization	(2,497)	(2,352)
Property and equipment, net	$ 1,235	$ 1,430

Depreciation expense amounted to $381,000, $432,000 and $449,000 for the years ended December 31, 2004, 2003 and 2002, respectively.

Note 5 Accrued Expenses

Accrued expenses consist of the following:

	December 31, (in thousands)	
	2004	2003
Professional fees	$ 126	$ 142
Accrued salaries	198	144
Accrued bonus	232	175
Clinical studies	1,318	645
Other	129	67
Total	$2,003	$1,173

Note 6 Long-Term Debt

In September 1995, we extinguished $2.5 million of Industrial Revenue Bonds through an "in-substance defeasance" transaction by placing approximately $2.5 million of United States government securities in an irrevocable trust to fund all future interest and principal payments. In accordance with the agreement, the investments held in the irrevocable trust shall be the exclusive source of all principal and interest payments and we have no liability for any shortfall in payments due. In addition, we have relinquished all rights with respect to the amounts held in the trust. The defeased debt balance outstanding of $2.5 million as of December 31, 2004 was repaid on January 15, 2005 using the proceeds from the maturities of the United States government securities held in the irrevocable trust. The bond liability and related assets held in trust are not reflected in the accompanying consolidated balance sheets.

Note 7 Commitments

Total rental expense for facilities and equipment was $501,000, $667,000 and $654,000 for 2004, 2003 and 2002, respectively. Rental expense differs from cash payments under lease arrangements by $12,000 in 2002 as the Company's sales agreement to RP Scherer (see Note 10, "Discontinued Operations") allowed for RP Scherer to occupy a portion of the leased office facilities rent-free through January 25, 2002. The total amount of free rent provided to RP Scherer was accrued and charged to discontinued operations in 2000.

Our future minimum lease payments under noncancelable operating leases for facilities are as follows (in thousands):

Year Ending December 31,	Minimum Payments
2005	$ 428
2006	470
2007	470
2008	472
2009	487
Thereafter	627
	$2,954

As part of the sale of our cosmeceutical and toiletry business to RP Scherer Corporation in July 2000, we guaranteed a minimum gross profit percentage on

RP Scherer's sales of products to Ortho Neutrogena and Dermik. See Note 10 "Discontinued Operations".

Note 8 Stockholders' Equity

Shareholders' Rights Plan

On August 19, 1996, the Board of Directors approved a Shareholders' Rights Plan under which shareholders of record on September 3, 1996 received a dividend of one Preferred Stock purchase right ("Rights") for each share of common stock outstanding. The Rights were not exercisable until 10 business days after a person or group acquired 20% or more of the outstanding shares of common stock or announced a tender offer that could have resulted in a person or group beneficially owning 20% or more of the outstanding shares of common stock (an "Acquisition") of the Company. The Board of Directors approved an increase in threshold to 30% in December 1997. Each Right, should it become exercisable, will entitle the holder (other than acquirer) to purchase company stock at a discount. The Board of Directors may terminate the Rights plan or, under certain circumstances, redeem the rights.

In the event of an Acquisition without the approval of the Board, each Right will entitle the registered holder, other than an acquirer and certain related parties, to buy at the Right's then current exercise price a number of shares of common stock with a market value equal to twice the exercise price.

In addition, if at the time when there was a 30% shareholder, we were to be acquired by merger, shareholders with unexercised Rights could purchase common stock of the acquirer with a value of twice the exercise price of the Rights.

The Board may redeem the Rights for $0.01 per Right at any time prior to Acquisition. Unless earlier redeemed, the Rights will expire on August 19, 2006.

In June 2004, we sold 4,153,335 shares of common stock at a price of $3.00 per share, for net proceeds of approximately $11.8 million, after deducting placement fees and costs associated with the offering. The shares were offered under our shelf registration statement on Form S-3.

Stock-Based Compensation Plans

We have two types of stock-based compensation plans, which consist of a stock purchase plan and two stock option plans.

In 1997, our stockholders approved our 1997 Employee Stock Purchase Plan (the "Plan"). In May 2004 the stockholders authorized the increase in shares reserved for issuance under the Plan by 100,000 to 500,000 to our employees, nearly all of whom are eligible to participate. Under the terms of the Plan, employees can elect to have up to a maximum of 10 percent of their base earnings withheld to purchase our common stock. The purchase price of the stock is 85 percent of the lower of the closing prices for our common stock on: (i) the first trading day in the enrollment period, as defined in the Plan, in which the purchase is made, or (ii) the purchase date. The length of the enrollment period may not exceed a maximum of 24 months. Enrollment dates are the first business day of May and November and the first enrollment date was April 30, 1997. Approximately 54 percent of eligible employees participated in the Plan in 2004. Under the Plan, we issued 118,062 shares in 2004, 74,746 shares in 2003 and 63,086 shares in 2002. The weighted average fair value of purchase rights granted during 2004, 2003 and 2002 was $0.51, $0.50 and $0.60, respectively. The weighted average exercise price of the purchase rights exercised during 2004, 2003 and 2002 was $0.89, $0.82 and $1.18, respectively. We had 74,531, 92,593 and 167,339 shares reserved for issuance under the Plan at December 31, 2004, 2003 and 2002, respectively.

We have two current stock option plans for employees, officers, directors and consultants. We grant stock options under the 2002 Stock Incentive Plan ("2002 Plan") and the Non-Qualified Stock Plan. The Company is authorized to issue up to 900,000 shares under the 2002 Plan, 400,000 of which were approved in May 2004, and 250,000 shares under the Non-Qualified Stock Plan. The options to purchase our common stock are granted with an exercise price which equals fair market value of the underlying common stock on the grant dates, and expire no later than ten years from the date of grant. The options are exercisable in accordance with vesting schedules that generally provide for them to be fully exercisable four years after the date of grant. Any shares that are issuable upon exercise of options granted under the 2002 Plan and the Non-Qualified Stock Plan that expire or become unexercisable for any reason without having been exercised in full are available for future grant and issuance under the same stock option plan.

We granted options to purchase common stock to consultants from time to time in exchange for services rendered and these options vest over a period of two to four years. No options were granted to consultants in 2004. We recorded compensation expense related to option grants to consultants of approximately $16,000, $30,000 and $22,000 in 2004, 2003 and 2002, respectively, which represents the fair market value of the portion of the awards that vested during 2004, 2003 and 2002. The unvested shares held by consultants have been and will be revalued using the Black-Scholes option pricing model at the end of each accounting period.

The following table summarizes option activity for 2004, 2003 and 2002:

	2004		2003		2002	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at beginning of year	2,108,605	$3.97	2,901,512	$4.54	3,427,042	$5.25
Granted	383,500	2.04	182,500	1.26	316,000	1.87
Exercised	(68,448)	2.20	(13,570)	1.62	--	--
Expired or Forfeited	(218,021)	4.93	(961,837)	5.21	(841,530)	6.41
Outstanding at end of year	2,205,636	3.60	2,108,605	3.97	2,901,512	4.54
Options exercisable at year end	1,712,166		1,674,704		2,251,298	
Shares available for future grant at year end	320,961		286,669		384,332	
Weighted-average fair value of stock options granted during the year	$1.12		$0.79		$1.76	

The following table summarizes information about stock options outstanding at December 31, 2004:

	OPTIONS OUTSTANDING			OPTIONS EXERCISABLE	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$1.00-$1.92	456,332	8.5 years	$ 1.30	195,657	$ 1.37
$2.00--$2.50	481,529	7.4	2.34	319,567	2.31
$2.56-$3.34	494,733	6.5	2.99	423,900	2.99
$3.44-$6.00	446,500	3.2	4.91	446,500	4.91
$6.25-$10.25	326,542	2.3	$ 7.78	326,542	7.78
$1.00-$10.25	2,205,636	5.8	$ 3.60	1,712,166	$ 4.09

We have adopted the disclosure only provisions of FAS 123 "Accounting for Stock-Based Compensation." Accordingly, except for stock options issued to non-employees and restricted stock awards to employees, no compensation cost has been recognized for the various stock option plans and stock purchase plan. The compensation cost that has been expensed in the statements of operations for the stock options issued to non-employees and restricted stock awards to employees and directors was $16,000, $30,000 and $55,000 for 2004, 2003 and 2002, respectively.

The table regarding the net loss and net loss per share included in Note 2, "Summary of Significant Accounting Policies," prepared in accordance with FAS 123 has been determined as if we had accounted for our employee stock options

and employee stock purchase plan under the fair value method prescribed by FAS 123 and the earnings (loss) per share method under FAS 128.

Fair values of awards granted under the stock option plans and employee stock purchase plan were estimated at grant or purchase dates using a Black-Scholes option pricing model. For pro forma disclosure, the estimated fair value of the options is amortized to expense over the vesting period of the options using the straight line method. The multiple option approach is used to value the purchase rights granted under the employee stock purchase plan. We used the following assumptions:

	Year Ended December 31,		
	2004	2003	2002
Expected life in years (from vesting date):			
Stock options	5	5	5
Employee Stock Purchase Plan	1.5 - 2	1.5 - 2	1.5 - 2
Discount rate:			
Stock options	3.2%	3.2%	3.8%
Employee Stock Purchase Plan	1.47%-2.55%	1.47%-1.82%	1.7%-3.2%
Volatility			
Stock options	69%	85%	114%
Employee Stock Purchase Plan	65%-147%	65%-68%	68%-69%
Expected dividend yield	0%	0%	0%

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because our employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

Also in 2001, we modified the 1992 Stock Option Plan to extend the exercise period of vested stock options upon employee termination, from up to 30 days after the date of termination to up to 90 days after the date of termination. We did not record compensation expense associated with this modification in 2004, 2003 and 2002, as the expense associated with the affected options exercised in 2004 and 2003 was $0 and none of the affected options was exercised during 2002. The number of stock options that may be affected in future periods was not estimable on the date of modification.

Note 9 Net Loss Per Share

The following table sets forth the computation of our basic and diluted loss per share (in thousands, except per share amounts):

	2004	2003	2002
Loss from continuing operations	$(9,092)	$(6,208)	$(4,395)
Net loss	$(9,221)	$(4,363)	$(3,778)
Shares calculation:			
Weighted average shares outstanding - basic and diluted	22,909	20,553	20,409
Basic and diluted loss per common share:			
Loss from continuing operations	$ (0.40)	$ (0.30)	$ (0.22)
Net loss	$ (0.40)	$ (0.21)	$ (0.19)

The following options were outstanding during the periods presented, but were not included in the computation of diluted net loss per share since inclusion

of these potentially dilutive securities would have been anti-dilutive for the periods presented (in thousands, except exercise prices):

	2004	2003	2002
Number outstanding	1,661	2,423	3,146
Range of exercise prices	$2.45 - $10.25	$1.44 - $10.25	$1.00 - $10.25

Note 10 Discontinued Operations

We completed the sale of certain assets of our Analytical Standards division as well as certain technology rights for our topical pharmaceutical and cosmeceutical product lines and other assets ("cosmeceutical and toiletry business") in February 2003 and July 2000, respectively.

The Analytical Standards division and cosmeceutical and toiletry business are reported as discontinued operations for all periods presented in the accompanying Condensed Consolidated Statements of Operations.

Income (loss) from discontinued operations represents the income (loss) attributable to our Analytical Standards division that was sold to GFS Chemicals on February 13, 2003 and changes in estimates of our cosmeceutical and toiletry business that was sold to RP Scherer on July 25, 2000, as follows (in thousands):

	For the year ended December 31,		
	2004	2003	2002
Analytical Standards Division			
Income from Analytical Standards division	$ --	$ 8	$ 229
	--	8	229
Cosmeceutical and Toiletry Business			
Recovery of (provisions for) doubtful accounts receivable	--	28	(28)
Change in estimates for professional fees, severance costs and guarantees	(133)	(103)	135
Change in estimate of provision for income taxes and tax refunds	--	10	65
	(133)	(65)	172
Total income (loss) from discontinued operations	$ (133)	$(57)	$401

Revenues relating to the discontinued operations totaled $0, $127,000 and $1,145,000 for the years ended December 31, 2004, 2003 and 2002, respectively.

Gain on disposition of discontinued operations in the accompanying Consolidated Statement of Operations for the year ended December 31, 2003 represents the gain on the sale of certain assets of our Analytical Standards division in February 2003. Gain on disposition of discontinued operations for the year ended December 31, 2002 represents the annual earnout income received from RP Scherer based on the performance of the business sold, net of allowances for claims made by RP Scherer, mostly due to an indemnification claim relating to inventory deemed obsolete, pursuant to the agreement.

The following table sets forth the Company's basic and diluted income (loss) per common share from discontinued operations excluding the gain on sale for the years ended December 31, 2004, 2003 and 2002:

	For the year ended December 31,

	2004	2003	2002
Basic income (loss) per common share from discontinued operations	$(0.01)	$ *	$0.02
Diluted income (loss) per common share from discontinued operations	$(0.01)	$ *	$0.02

* Less than ($0.00) per share

As of December 31, 2004, liabilities related to the discontinued operation in the amount of $160,000 include severance costs and accruals for gross profit guarantees. These liabilities are reported as accrued disposition costs in the accompanying consolidated balance sheets.

The cash provided by discontinued operations of $99,000 in 2004 relates to the royalties received from GFS from sales of Analytical Standards products, partially offset by severance payments made to former employees who were terminated as a result of the sale of the Analtyical Standards division. The cash used in discontinued operations in 2003 and 2002 of $413,000 and $554,000, respectively, relates to cash used in Analytical Standards division operations, severance payments and payments of the gross profit guarantee to RP Scherer, partially offset by royalties received from GFS.

Analytical Standards Division
- ----------

On February 13, 2003, we completed the sale of our Analytical Standards division to GFS Chemicals, Inc. ("GFS"), a privately held company based in Columbus, Ohio. In this transaction, we received $2.1 million on closing and are entitled to receive royalties on sales of Analytical Standards products for a period of five years at rates ranging from 5% to 15%. The net present value of the guaranteed minimum royalties is included in the gain on disposition of discontinued operations.

As a result of the sale of the Analytical Standards division, we recorded severance charges of $210,000 in the year ended December 31, 2003 as a partial offset to the gain on disposition of the Analytical Standards division. An increase to the estimated severance charges of $19,000 was recorded in 2004. Approximately $222,000 of these severance charges has been paid through December 31, 2004.

Cosmeceutical and Toiletry Business
- ----------

On July 25, 2000, we completed the sale of certain technology rights for our topical pharmaceutical and cosmeceutical product lines and other assets ("cosmeceutical and toiletry business") to RP Scherer Corporation, a subsidiary of Cardinal Health, Inc. We received $25 million at closing and were entitled to receive further earnout amounts for the subsequent three years up to a maximum of $26.5 million, the amounts of which were dependent on the performance of the business sold. During the first two years of the earnout period, we earned an aggregate of $3.8 million. No earnout income was received or reported for the third and final earnout year. The earnout was calculated based on gross profit earned by the business sold over a three-year period. The terms of the agreement with RP Scherer provided for an earnout of 20% to 60% of gross profit of the business sold over a threshold that increased each year. Each earnout year had a different minimum level of gross profit to be achieved before any earnout income could be received. In addition to the minimum gross profit levels, each earnout period had three additional gross profit thresholds that correspond to a specific earnout percentage up to a maximum of 60%. Earnout thresholds for the third and final year were higher than the first two years. The cosmeceutical and toiletry business is reported as a discontinued operation for all periods presented in the accompanying Consolidated Statements of Operations.

Under the terms of the agreement with RP Scherer, we guaranteed a minimum gross profit percentage on RP Scherer's combined sales of products to Ortho Neutrogena and Dermik ("Gross Profit Guaranty"). The guaranty period commenced on July 1, 2000 and ends on the earlier of July 1, 2010 or the end of two consecutive guaranty periods where the combined gross profit on sales to Ortho and Dermik equals or exceeds the guaranteed gross profit. Payments for the Gross Profit Guaranty aggregated $527,000 for the first four guaranty years. We expect the annual Gross Profit Guaranty payments to range from

approximately $100,000 to $150,000 for the remainder of the guaranty period. As there is no minimum amount of Gross Profit Guaranty due, no accrual for the guaranty is estimable for future years. A liability of $153,000 related to the current amount due under the gross profit guarantees is included in accrued disposition costs as of December 31, 2004.

Note 11 Defined Contribution Plan

We have a defined contribution plan covering substantially all of our employees. In the past three calendar years, we made matching cash contributions equal to 50% of each participant's contribution during the plan year up to a maximum amount equal to the lesser of 3% of each participant's annual compensation or $6,150, $6,000 and $5,500 for 2004, 2003 and 2002 , respectively, and such amounts were recorded as expense in the corresponding years. We may also contribute additional discretionary amounts to the defined contribution plan as we may determine. For the years ended December 31, 2004, 2003 and 2002, we contributed to the plan approximately $86,000, $64,000 and $79,000, respectively. No discretionary contributions have been made to the plan since its inception.

Note 12 Income Taxes

There is no provision for income taxes because we have incurred operating losses. Deferred income taxes reflect the net tax effects of net operating loss and tax credit carryovers and temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets are as follows (in thousands):

	December 31,	
	2004	2003
Deferred Tax Assets:		
Net operating loss carryforwards	$ 26,100	$ 24,100
Research credits	2,000	1,900
Capitalized research expenses	200	300
Other	400	900
Total deferred tax assets	28,700	27,200
Valuation allowance	(28,700)	(27,200)
Net deferred tax assets	--	--

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $1,500,000, decreased by $100,000 and increased by $1,000,000 during 2004, 2003, and 2002, respectively.

Deferred tax assets related to carryforwards at December 31, 2004 include approximately $2,900,000 associated with stock option activity related to nonqualified stock options for which any subsequently recognized tax benefits will be credited directly to stockholders' equity.

As of December 31, 2004, we had net operating loss carryforwards for federal income tax purposes of approximately $73,700,000 which expire in the years 2005 through 2024 and federal research and development tax credits of approximately $1,100,000 which expire in the years 2005 through 2024.

As of December 31, 2004, we had net operating loss carryforwards for state income tax purposes of approximately $17,400,000 which expire in the years 2012 through 2014 and state research and development tax credits of approximately $1,300,000 which do not expire.

Utilization of our net operating loss and credit carryforwards may be subject to substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code and similar state provisions. Such an annual limitation could result in the expiration of the net operating loss and credits before utilization.

Note 13 Significant Agreements

Ortho Neutrogena Corporation
- ----------------------------

In May 1992, we entered into development and licensing and investment agreements with Ortho Neutrogena (formerly Ortho-McNeil Pharmaceutical Corporation) ("Ortho") for the development of retinoid products. The first product is a Microsponge(R) system entrapment of tretinoin (trans-retinoic acid or "t-RA"), a prescription acne drug product for which FDA approval was received in February 1997. A second product licensed to Ortho is a Microsponge entrapment of a retinoid to be used for the treatment of photodamaged skin.

In February 1995, we received $750,000 in prepaid royalties and an additional $750,000 as a milestone payment on the submission to the FDA of our New Drug Application ("NDA") for the tretinoin prescription acne treatment. The milestone payment was recognized as revenue upon receipt. The prepaid royalties of $750,000 were recorded as deferred revenue. In February 1997, upon receipt of approval from the FDA to market Retin-A Micro(R) (tretinoin gel) microsphere for the treatment of acne, we received $3 million from Ortho, $1.5 million of which was a milestone payment that was recognized as revenue in 1997 and $1.5 million of which was prepaid royalties that was recorded as deferred revenue. As of December 31, 2004, there were no amounts remaining in deferred revenue.

Dermik
- ------

In March 1992, we restructured a 1989 joint venture agreement with Dermik, a Sanofi-Aventis company. As part of the agreement, Sanofi-Aventis received certain exclusive marketing rights. Product applications include a 5-FU treatment for actinic keratoses. In 1998, this agreement was amended to give Dermik an exclusive worldwide license to Microsponge-entrapped 5-FU and to increase the royalty payable to us from 5% to 10%. In 1999, Dermik filed an NDA for this product and expanded its agreement with us to cover two additional indications, in return for milestone payments and royalties upon successful development. We received $500,000 on the execution of this amendment representing a milestone payment of $250,000 and prepaid royalties of $250,000. In 2000, Dermik received FDA marketing clearance for the product, which was launched under the trade name Carac(TM) in 2001 and we received a milestone payment of $50,000. In accordance with the agreement, the prepaid royalties were to be creditable against future royalties in at least two indications containing the Licensed Product and were recorded as deferred revenues. During 2002, Dermik decided not to pursue the additional indications covered by the 1999 amendment, thereby forfeiting its prepaid royalties. The accompanying Consolidated Statements of Operations include $237,000 in 2002 resulting from the recognition of these deferred revenues upon the forfeiture of Dermik's rights. In 2003, A.P. Pharma regained rights to Carac from Dermik for all regions outside the U.S. and Canada. Dermik's exclusivity relating to Carac will continue as long as annual minimum royalty payments are made, governed by the life of our applicable patents, which continue until 2021.

Note 14 Quarterly Results of Operations (Unaudited)

The following table presents summarized results of operations for each of our quarters in the years ended December 31, 2004 and 2003. These quarterly results are unaudited; however, in the opinion of management, such results have been prepared on the same basis as our audited financial information and include all adjustments (consisting only of normal recurring adjustments) necessary for a fair presentation of the information set forth therein.

QUARTERLY RESULTS OF OPERATIONS
(IN THOUSANDS, EXCEPT PER SHARE DATA)
(UNAUDITED)

Year Ended December 31, 2004	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Total revenues	$ 1,180	$ 1,284	$ 1,458	$ 1,482
Operating expenses	3,759	3,725	3,416	3,820
Interest and other, net	29	49	71	75
Loss from continuing operations	(2,550)	(2,392)	(1,887)	(2,263)
Discontinued operations	(49)	(52)	(34)	6
Net loss	(2,599)	(2,444)	(1,921)	(2,257)
Basic and diluted loss per common share:				
Loss from continuing operations	(0.12)	(0.11)	(0.08)	(0.09)

Net loss	(0.13)	(0.12)	(0.08)	(0.09)

Year Ended December 31, 2003	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Total revenues	$ 1,106	$ 1,117	$ 1,268	$ 1,358
Operating expenses	2,980	3,101	2,503	2,875
Interest and other, net	76	54	220	53
Loss from continuing operations	(1,798)	(1,930)	(1,015)	(1,464)
Discontinued operations	1,832	(30)	(43)	86
Net income (loss)	34	(1,960)	(1,058)	(1,378)
Basic income (loss) per common share:				
Loss from continuing operations	(0.09)	(0.09)	(0.05)	(0.07)
Net income (loss)	*	(0.10)	(0.05)	(0.07)
Diluted (loss) income per common share:				
Loss from continuing operations	(0.09)	(0.09)	(0.05)	(0.07)
Net income (loss)	*	(0.10)	(0.05)	(0.07)

* Less than $0.01 per share

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES

(a) Evaluation of disclosure controls and procedures: We carried out an evaluation, under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, of the effectivenesss of the design and operations of our disclosure controls and procedures pursuant to Rule 13a-15(e) and 15(d)-15(e) of the Exchange Act. Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that as of December 31, 2004, the end of the period covered by this report, our disclosure controls and procedures were effective at the reasonable assurance level to timely alert them to material information relating to the Company required to be included in our Exchange Act filings.

(b) Management's report on internal control over financial reporting: Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2004 based on the framework in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on that evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2004.

Management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2004 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report below.

(c) Report of Independent Registered Public Accounting Firm:

The Board of Directors and Stockholders
A.P. Pharma, Inc.

We have audited management's assessment, included above in "Management's Report on Internal Control Over Financial Reporting", that A.P. Pharma, Inc. maintained effective internal control over financial reporting as of December 31, 2004, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). A.P. Pharma, Inc's. management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that A.P. Pharma, Inc. maintained effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, A.P. Pharma, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of A.P. Pharma Inc. as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholder's equity, and cash flows for each of the three years in the period ended December 31, 2004 of A.P. Pharma, Inc. and our report dated March 11, 2005 expressed an unqualified opinion thereon.

/s/ERNST & YOUNG LLP

Palo Alto, California
March 11, 2005

(d) Changes in internal controls: During the quarter ended December 31, 2004, there have been no significant changes in our internal control over financial reporting that materially affected, or are reasonable likely to materially affect, our internal control over financial reporting.

Item 9B. OTHER INFORMATION

None.

Part III

Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

APP incorporates by reference the information set forth under the caption "Information Concerning the Board of Directors and Executive Officers" of the Company's Proxy Statement (the "Proxy Statement") for the annual meeting of shareholders to be held on May 25, 2005.

Code of Ethics

We have adopted a Code of Ethics that applies to all of our directors, officers and employees. The Code of Ethics is posted on our website at http://www.appharma.com under the caption Investor Relations.

We intend to satisfy the disclosure requirement under Item 10 of Form 8-K regarding an amendment to, or waiver from, a provision of the Code of Ethics by posting such information on our website, at the address and location specified above.

Item 11. EXECUTIVE COMPENSATION

We have incorporated by reference the information set forth under the caption "Executive Compensation" of the Proxy Statement.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The Company incorporates by reference the information set forth under the caption "Common Stock Ownership of Certain Beneficial Owners and Management" of the Proxy Statement.

In October 2000, the Company adopted the Non-Qualified Stock Plan, which has not been approved by A.P. Pharma's stockholders. The Non-Qualified Stock Plan will expire in 2010. Under the Non-Qualified Stock Plan, awards may be granted as a material inducement to any person accepting employment or consultancy with the Company or an employee of the Company who is not an officer or director of the Company at the time of the award. The Non-Qualified Stock Plan provides for the discretionary award of options, restricted stock and stock purchase rights or any combination of these awards to an eligible person, provided, however, that only NQOs may be granted under the plan. Under the Non-Qualified Stock Plan, the term of any NQO granted may not exceed 10 years, and the exercise price of any such NQO must be at least 85% of the fair market value of the Common Stock at the date of grant. Options generally vest on a monthly basis over a period of four years.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The Company incorporates by reference the information set forth under the caption "Certain Transactions" of the Proxy Statement.

Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The Company incorporates by reference the information set forth under the captions "Report of the Audit Committee," "Ratification of Selection of Independent Auditors" and "Fees Paid to Ernst & Young" of the Proxy Statement.

Part IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

(a) 1. Financial Statements
The financial statements and supplementary data set forth in Part II of the 10-K Annual Report are included herein.

2. Financial Statement Schedules
Schedule II Valuation Accounts
All other schedules have been omitted because the information is not required or is not so material as to require submission of the schedule, or because the information is included in the financial statements or the notes thereto.

3. Exhibits
2.1-Copy of Asset Purchase Agreement between Registrant and RP Scherer South, Inc. dated June 21, 2000. (1)
3-A-Copy of Registrant's Certificate of Incorporation. (2)
3-B-Copy of Registrant's Bylaws. (2)
10-C-Registrant's 1992 Stock Plan dated August 11, 1992. (3)*
10-D-Registrant's 1997 Employee Stock Purchase Plan dated March 5, 1997. (4)*
10-E-Lease Agreement between Registrant and Metropolitan Life Insurance Company for lease of Registrant's executive offices in Redwood City dated as of November 17, 1997. (5)
10-N-Agreement with Johnson & Johnson dated April 14, 1992. (6)
10-X-Registrant's Non-Qualified Plan
23.1-Consent of Independent Registered Public Accounting Firm.
31.1-Certification of Chief Executive Officer pursuant to Rules 13A-15(e) Promulgated under the Securities Exchange Act of 1934 as amended.
31.2-Certification of Chief Financial Officer pursuant to Rules 13A-15(e) Promulgated under the Securities Exchange Act of 1934 as amended.
32-Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

(c) Exhibits
The Company hereby files as part of this Form 10-K the exhibits listed in Item 15(a)3 as set forth above.

- ---

(1)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Form 8-K dated July 25, 2000, and incorporated herein by reference.
(2)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Registration Statement on Form S-1 (Registration No. 33-15429) and incorporated herein by reference.
(3)Filed as Exhibit No. 28.1 to Registrant's Registration Statement on Form S-8 (Registration No. 33-50640), and incorporated herein by reference.
(4)Filed as an Exhibit No. 99.1 to Registrant's Registration Statement on Form S-8 (Registration No. 333-35151), and incorporated herein by reference.
(5)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1997, and incorporated herein by reference.
(6)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1992, and incorporated herein by reference.

(d) Financial Statement Schedules
See Item 15(a)2 of this Form 10-K.

* Management Contract or Compensatory plans.

SIGNATURES

Pursuant to the requirement of Section 13 or 15 (d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

A.P. PHARMA, INC.

By: /S/Michael O'Connell

Michael O'Connell
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENT, that each person whose signature appears below constitutes and appoints Michael O'Connell and Gordon Sangster, jointly and severally, his or her attorneys-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Annual Report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/S/ Michael O'Connell Michael O'Connell	President and Chief Executive Officer (Principal Executive Officer)	March 14, 2005
/S/ Gordon Sangster Gordon Sangster	Chief Financial Officer (Principal Financial and Accounting Officer)	March 14, 2005
/S/ Paul Goddard Paul Goddard	Chairman of the Board of Directors	March 14, 2005
/S/ Stephen Drury Stephen Drury	Director	March 14, 2005
/S/ Peter Riepenhausen Peter Riepenhausen	Director	March 14, 2005
/S/ Toby Rosenblatt Toby Rosenblatt	Director	March 14, 2005
/S/ Gregory Turnbull Gregory Turnbull	Director	March 14, 2005
/S/ Dennis Winger Dennis Winger	Director	March 14, 2005
/S/ Robert Zerbe Robert Zerbe	Director	March 14, 2005

EXHIBIT INDEX
Form 10-K Annual Report

2.1-Copy of Asset Purchase Agreement between Registrant and RP Scherer South, Inc. dated June 21, 2000. (1)
3-A-Copy of Registrant's Certificate of Incorporation. (2)
3-B-Copy of Registrant's Bylaws. (2)
10-C-Registrant's 1992 Stock Plan dated August 11, 1992. (3)*
10-D-Registrant's 1997 Employee Stock Purchase Plan dated March 5, 1997. (4)*
10-E-Lease Agreement between Registrant and Metropolitan Life Insurance Company for lease of Registrant's executive offices in Redwood City dated as of November 17, 1997. (5)
10-N-Agreement with Johnson & Johnson dated April 14, 1992. (6)
10-X-Registrant's Non-Qualified Stock Plan.
21-Proxy Statement for the Annual Meeting of Shareholders. (7)
23.1-Consent of Independent Registered Public Accounting Firm.
31.1-Certification of Chief Executive Officer pursuant to Rules 13A-15(e) Promulgated under the Securities Exchange Act of 1934 as amended.
31.2-Certification of Chief Financial Officer pursuant to Rules 13A-15(e) Promulgated under the Securities Exchange Act of 1934 as amended.
32-Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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(1)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Form 8-K dated July 25, 2000, and incorporated herein by reference.
(2)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Registration Statement on Form S-1 (Registration No. 33-15429) and incorporated herein by reference.
(3)Filed as Exhibit No. 28.1 to Registrant's Registration Statement on Form S-8 (Registration No. 33-50640), and incorporated herein by reference.
(4)Filed as an Exhibit No. 99.1 to Registrant's Registration Statement on Form
S-8 (Registration No. 333-35151), and incorporated herein by reference.
(5)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1997, and incorporated herein by reference.
(6)Filed as an Exhibit with corresponding Exhibit No. to Registrant's Annual Report on Form 10-K for the year ended December 31, 1992, and incorporated herein by reference.
(7)To be filed supplementally.

* Management Contract or Compensatory plans.

Schedule II

Valuation and Qualifying Accounts (in thousands)

	Beginning Balance	Additions Charged to Cost and Expense	Deductions, write-offs and Recoveries	Ending Balance
December 31, 2004				
Accounts receivable, allowance for bad debt	$ --	$ --	$ --	$ --
Note receivable, allowance for doubtful note	$413	$ --	$19	$394
December 31, 2003				
Accounts receivable, allowance for bad debt	$28	$ --	$28	$ --
Note receivable, allowance for doubtful note	$437	$ --	$24	$413
December 31, 2002				
Accounts receivable, allowance for bad debt	$--	$33	$5	$28
Note receivable, allowance for doubtful note	$417	$50	$30	$437

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

1) Registration Statement (Form S-3 No. 33-88972), of A.P. Pharma, Inc.,
2) Registration Statement (Form S-3 No. 333-00759), of A.P. Pharma, Inc.,
3) Registration Statement (Form S-3 No. 333-042527), of A.P. Pharma, Inc.,
4) Registration Statement (Form S-3 No. 333-69815), of A.P. Pharma, Inc.,
5) Registration Statement (Form S-3 No. 333-115163), of A.P. Pharma, Inc.,
6) Registration Statement (Form S-8 No. 333-06841), pertaining to the 1992 Stock Plan of A.P. Pharma, Inc.,
7) Registration Statement (Form S-8 No. 333-60585), pertaining to the 1992 Stock Plan of A.P. Pharma, Inc.,
8) Registration Statement (Form S-8 No. 333-35151), pertaining to the 1997 Employee Stock Purchase Plan of A.P. Pharma, Inc.,
9) Registration Statement (Form S-8 No. 333-90428), pertaining to the 2002 Equity Incentive Plan and Non-Qualified Stock Option Plan of A.P. Pharma, Inc., and
10) Registration Statement (Form S-8 No. 333-118546), pertaining to the 2002 Equity Incentive Plan and 1997 Employee Stock Purchase Plan of A.P. Pharma, Inc.;

of our reports dated March 11, 2005 with respect to the consolidated financial statements and schedule of A.P. Pharma, Inc., A.P. Pharma, Inc. management's assessment of the effectiveness of internal control over financial reporting, and the effectiveness of internal control over financial reporting of A.P. Pharma, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2004.

/s/ERNST & YOUNG LLP

Palo Alto, California
March 11, 2005

Exhibit 31.1

CERTIFICATIONS

I, Michael O'Connell, certify that:

1. I have reviewed this annual report on Form 10-K of A.P. Pharma, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonable likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonable likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2005

/s/ Michael O'Connell

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Michael O'Connell
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Gordon Sangster, certify that:

1. I have reviewed this annual report on Form 10-K of A.P. Pharma, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonable likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent function):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonable likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2005

/s/ Gordon Sangster

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Gordon Sangster
Chief Financial Officer

Exhibit 32

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of A.P. Pharma, Inc. (the "Company") on Form 10-K for the year ending December 31, 2004 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael O'Connell, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Michael O'Connell
Michael O'Connell,
Chief Executive Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED
PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of A.P. Pharma, Inc. (the "Company") on Form 10-K for the year ending December 31, 2004 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gordon Sangster, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

/s/ Gordon Sangster
Gordon Sangster,
Chief Financial Officer