

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 11-K

(Mark One)

- Annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934 (Fee Required)
For the fiscal year ended December 31, 2000 or
- Transition report pursuant to Section 15(d) of the Securities Exchange Act of 1934 (No Fee Required)
For the transition period from _____ to _____

Commission File Number 0-16109

ADVANCED POLYMER SYSTEMS, INC.
SALARY REDUCTION PROFIT SHARING PLAN

AP PHARMA, INC.
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FINANCIAL STATEMENTS AND EXHIBITS

ADVANCED POLYMER SYSTEMS, INC.
SALARY REDUCTION PROFIT SHARING PLAN
STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS
DECEMBER 31, 2000 AND 1999

	2000	1999
	----	----
ASSETS:		
Cash	\$ --	\$ 223
Investments (note 3):		
Mutual Funds	3,053,781	--
Pooled separate accounts	--	3,403,101
Fixed dollar annuities	--	398,887
Company stock	34,177	60,756
Participant loans	52,081	59,096
	-----	-----
Total investments	3,140,039	3,921,840
	-----	-----
Contributions receivable:		
Participant	4,576	21,340
Employer	13,354	28,282
	-----	-----
Total contributions receivable	17,930	49,622
	-----	-----
Net assets available for benefits	\$3,157,969	\$3,971,685
	=====	=====

See accompanying notes to the financial statements.

ADVANCED POLYMER SYSTEMS, INC.
SALARY REDUCTION PROFIT SHARING PLAN
STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS
YEARS ENDED DECEMBER 31, 2000 AND 1999

	2000 ----	1999 ----
Additions to net assets attributed to:		
Investment income:		
Net (depreciation) appreciation in fair value of investments (note 3)	\$ (376,115)	\$ 567,627
Interest	5,383	25,436
Dividends	26	31
	-----	-----
Total investment (loss) income	(370,706)	593,094
Contributions:		
Employee	302,518	344,650
Employer	97,567	120,664
Rollovers	6,796	--
	-----	-----
Total additions	406,881	465,314
	-----	-----
Deductions from net assets attributed to:		
Benefit payments	(849,891)	(256,106)
	-----	-----
Total deductions	(849,891)	(256,106)
	-----	-----
Net (decrease) increase	(813,716)	802,302
Net assets at beginning of year	3,971,685	3,169,383
	-----	-----
Net assets available for benefits	\$3,157,969	\$3,971,685
	=====	=====

See accompanying notes to the financial statements.

1. DESCRIPTION OF THE PLAN

The following description of the Advanced Polymer Systems, Inc. Salary Reduction Profit Sharing Plan (the "401(k) Plan" or the "Plan") provides only general information. Participants should refer to the 401(k) Plan document for a more complete description of the Plan's provisions.

(a) General

The 401(k) Plan is a defined contribution plan covering active employees of AP Pharma, Inc. and subsidiaries ("Company"). In May 2001, the Company changed its name from Advanced Polymer Systems, Inc. to AP Pharma, Inc. (Note 7). The 401(k) Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA"). In June of 2000, the Company sold certain technology rights for topical pharmaceuticals and its cosmeceutical product lines and other assets to its partner, R.P. Scherer Corporation, a subsidiary of Cardinal Health, Inc. The majority of the affected employees were hired by R.P. Scherer and had the option of taking a distribution from the Plan or leaving their account in the Plan.

(b) Contributions - Employee

Eligible domestic employees may contribute up to 15% of their total compensation for each calendar year, limited to \$10,500 in 2000 and \$10,000 in 1999.

(c) Contributions - Employer

The Company makes matching contributions equal to 50% of each member's Employee Contribution during a Plan year up to a maximum amount equal to the lesser of 3% of each participant's annual compensation, or \$5,100 per calendar year. The Company may also contribute additional discretionary amounts as it may determine. No employer discretionary contributions have been made to the Plan since its inception.

(d) Participant Accounts

Each participant's account is credited with the participant's contribution and allocations of (i) the employers' contribution and (ii) plan earnings. Allocations are based on participant earnings or account balances, as defined in the plan document. The benefit to which a participant is entitled is the amount that can be provided from the participant's vested account.

(e) Vesting

The 401(k) Plan provides that the allocated contribution and income of both the employee contribution and the employer matching contribution are immediately and fully vested. Employer discretionary contributions become vested over a period of 6 years in accordance with the following schedule:

Years of Service -----	Vested Percentage -----
Less than 1	0%
1	10%
2	20%
3	40%
4	60%
5	80%
6 or more	100%

(f) Payment of Benefits

Upon retirement (at 62 years of age or if later, the employee's fifth anniversary of employment with the Company), the participant can elect to receive distributions through either a single lump-sum payment or installments (for all investments except investments in the company common stock) over the participant's assumed life expectancy (or the participant and the participant's beneficiary's assumed life expectancy) determined at the time of distribution.

Upon death, permanent disability or termination of employment prior to retirement (as defined above), the participant will be entitled to a distribution equal to the vested portion of his/her accounts.

(g) Rollovers

The Plan allows certain transfers to and from eligible retirement plans.

A direct rollover is a payment by the 401(k) Plan to the eligible retirement plan specified by the distributee. A distributee may elect, at the time and in the manner prescribed by the Plan Administrator, to have any portion of an eligible rollover distribution paid directly to an eligible retirement plan specified by the distributee in a direct rollover.

With the consent of the Plan Administrator, amounts may be transferred from other eligible retirement plans by participants, provided that the trust from which such funds are transferred permits the transfer to be made and the transfer will not jeopardize the tax exempt status of the 401(k) Plan.

(h) Trustees

The Plan is administered by the Company. The assets of the Plan are held in Trust. Prior to January 1, 2000, Michael O'Connell, Chief Financial Officer of the Company, was the trustee. Effective January 1, 2000 the current trustee is Eastern Bank and Trust.

The Company has retained CMG Consulting, Inc. ("CMG") to provide recordkeeping services for the 401(k) Plan. CMG invests Plan assets in various investment options as directed by the participants. Prior to January 1, 2000, the Plan's investment options included pooled separate accounts and a fixed dollar annuity offered through Nationwide Life Insurance Company. Effective January 1, 2000, investment options include various mutual funds offered through D-Access, an affiliate of CMG.

The Company has engaged Securities America to invest Plan assets, as directed by the participants, in AP Pharma company stock.

Members of the Board of Directors and employees of the Company serving as Trustees receive no additional compensation for services in connection with the administration of the 401(k) Plan.

(i) Participant Loans

Participants are allowed to borrow from their vested account balance. The Plan will allow a participant to borrow up to the lesser of 50% of his/her vested balance or \$50,000. The loan, secured by the vested Plan balance of the participant, is repayable in installments over a period up to 5 years at the prime rate plus 1%. The term of the loan can be extended for more than 5 years if the loan is used to purchase the principal dwelling of the participant. Principal and interest are paid ratably through payroll deductions. At December 31, 2000 the interest rate on loans ranged from 8% to 10.25%.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Investment Valuation

The Plan's investments are stated at fair value except for its investment in the fixed dollar annuities which was valued at contract value, which approximated fair value. Contract value represents contributions made under the contract, plus interest earned, less funds withdrawn. The contract is included in the financial statements at contract value because it is fully benefit responsive. For example, participants may ordinarily direct the withdrawal or transfer of all or a portion of their investment in the investment contract. The guaranteed interest rate was 5.7% in 1999. Pooled Separate Accounts are valued based on quoted market prices which represent the net asset value of the underlying investments held by the Plan in the Pooled Separate Accounts at year-end. Investments in mutual funds and company common stock are valued at quoted market price at year-end. Participant loans are valued at cost which approximates fair value. Purchases and sales of securities are recorded on a trade-date basis.

(b) Expenses of the 401(k) Plan

Reasonable fees and expenses incurred in the establishment and administration of the 401(k) Plan, and reasonable compensation of attorneys, accountants, investment managers, actuaries, consultants or expenses of the Trustees or any agent of the Trustees if not employed by the Company will be paid out of the assets of the 401(k) Plan, except to the extent that the Company pays such expenses directly. For the years

ended December 31, 2000 and 1999, all such expenses were paid by the Company.

(c) Forfeitures

If a Participant terminates employment with the Company prior to completing six years of service, the unvested portion of such member's employer discretionary contribution will be forfeited and allocated among the remaining participants in the 401(k) Plan. No employer discretionary contributions have been made to the Plan since its inception, hence there have been no forfeitures.

(d) Basis of Accounting

The financial statements are prepared on the accrual basis of accounting.

(e) Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the plan administrator to make estimates and assumptions that affect the amounts reported in the financial statements and related notes to financial statements. Actual results could differ from those estimates.

(f) New Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities" ("SFAS No. 133"). SFAS No. 133 requires that an entity recognize all derivatives and measure those instruments at fair value.

SFAS No. 133 is effective for fiscal years beginning after June 15, 2000. Pursuant to SFAS No. 137, the Plan is required to adopt SFAS No. 133 effective January 1, 2001. Management has not yet determined the impact of SFAS No. 133 on the Plan financial statements.

3. INVESTMENTS

The following table represents the fair value of individual investments as of December 31, 2000 and 1999. Those which exceed 5% of the Plan's net assets as of December 31, 2000 are separately identified: (*):

	2000 ----	1999 ----
Pooled Separate Accounts		
American Balanced Fund*	\$ --	\$ 575,516
Bond Fund of America	--	135,850
Templeton Foreign Fund	--	112,115
Nationwide S&P Index Fund*	--	301,049
Fidelity Magellan Fund*	--	692,216
American Century Growth*	--	1,412,082
Warburg Pincus Emerging Growth Fund	--	174,273
	-----	-----
	--	3,403,101
	-----	-----
Mutual Funds		
Federated Capital Preservation Fund*	474,342	--
Bond Fund of America	142,431	--
American Balanced Fund*	294,964	--
Federated Max-Cap Fund*	225,450	--
Fidelity Advisor Equity Growth Fund*	498,053	--
MFS Mass Investors Growth Fund*	1,132,985	--
Van Kampen Emerging Growth Fund*	214,458	--
Franklin Templeton Foreign Fund	71,098	--
	-----	-----
	3,053,781	--
	-----	-----
Fixed Dollar Annuities*		
APS Common Stock	34,177	60,756
Participant Loans	52,081	59,096
	-----	-----
	\$3,140,039	\$3,921,840
	=====	=====

During 2000 and 1999, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) depreciated in value by \$376,115 and appreciated in value by \$567,627, respectively, as follows:

	2000 ----	1999 ----
Mutual Funds	\$(166,862)	\$ --
Pooled Separate Accounts	(194,250)	605,824
Common Stock	(15,003)	(38,197)
	-----	-----
	\$(376,115)	\$567,627
	=====	=====

4. INCOME TAXES

The Internal Revenue Service ("IRS") has determined and informed APS by a letter dated September 19, 1991 that the Plan and the related trust are designed and operated in accordance with applicable sections of the Internal Revenue Code ("IRC"). The Plan administrator believes that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC.

A participant's contributions and earnings thereon do not become subject to income taxes as a result of participation in the 401(k) Plan until assets in the participant's accounts are distributed. Under certain circumstances, a distribution from the 401(k) Plan is subject to income tax as ordinary income.

5. PLAN TERMINATION

Although it has not expressed any intent to do so, the Company has the right to terminate the 401(k) Plan at any time. In the event of termination, all accounts will become fully vested, and the plan equity will be allocated and distributed to the participants based on their respective account balances.

6. NONEXEMPT TRANSACTIONS

There were unintentional delays by the Company in submitting 1999 employee deferrals in the amount \$13,557 to the trustee. In 2000, the Company reimbursed the Plan for lost gains/interest in the amount of \$594.

7. SUBSEQUENT EVENT

In May of 2001, the shareholders of Advanced Polymer Systems, Inc. approved a change in the Company name to AP Pharma, Inc.

SCHEDULE I

ADVANCED POLYMER SYSTEMS, INC.
SALARY REDUCTION PROFIT SHARING PLAN
SCHEDULE H, LINE 4i - SCHEDULE OF ASSETS (HELD AT END OF YEAR)
DECEMBER 31, 2000

Identity of issuer, borrower, lessor or similar property -----	Description of investment, including maturity date, rate of interest, collateral, par or maturity value -----	Current value -----
Federated Investors	47,434 shares of Capital Preservation Fund	\$ 474,342
American	11,136 shares of Bond Fund of America	142,431
American	19,067 shares of Balanced Fund	294,964
Federated Investors	8,425 shares of Federated Max-Cap Fund	225,450
Fidelity	8,361 shares of Adv. Equity Growth Fund	498,053
MFS	66,102 shares of Mass Investors Growth Fund	1,132,985
Van Kampen	3,416 shares of Emerging Growth Fund	214,458
Franklin Templeton	6,876 shares of Foreign Fund	71,098
Advanced Polymer Systems*	14,381 shares of common stock	34,177
Participant loans*	Participant loans (interest rates, 8% to 10.25%; Number of loans, 6)	52,081

		\$3,140,039
		=====

* Party-in-interest
 See accompanying notes to independent auditors' report.

SCHEDULE II

ADVANCED POLYMER SYSTEMS, INC.
 SALARY REDUCTION PROFIT SHARING PLAN
 SCHEDULE G, PART III - SCHEDULE OF NONEXEMPT TRANSACTION
 DECEMBER 31, 2000

(a) Identity of party involved	(b) Relationship to plan, employer or other party-in-interest	(c) Description of transactions, including rate of interest	(d) Cost of asset (interest amount)
-----	-----	-----	-----
Advanced Polymer Systems, Inc.	Plan Sponsor	1999 employee deferrals not deposited to Plan in a timely manner. Annualized interest rate of 66.6%	\$594.00

It was noted that there were unintentional delays by the Company in submitting 1999 employee deferrals in the amount of \$13,557 to the trustee. In July of 2000, the Company reimbursed the Plan for lost interest in the amount of \$594.00.

See accompanying notes to independent auditors' report.

INDEPENDENT AUDITORS' REPORT

The Board of Directors and Stockholders of AP Pharma, Inc. and the Trustees and Participants in the Advanced Polymer Systems, Inc. Salary Reduction Profit Sharing Plan:

We have audited the accompanying statements of net assets available for benefits of the Advanced Polymer Systems, Inc. Salary Reduction Profit Sharing Plan as of December 31, 2000 and 1999, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. 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 net assets available for benefits as of December 31, 2000 and 1999, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules of Schedule H, line 4i - Schedule of assets (held at end of year) as of December 31, 2000 and Schedule G, Part III - schedule of nonexempt transactions for the year ended December 31, 2000 are presented for the purpose of additional analysis and are not a required part of the basic financial statements but are supplementary information required by the Department of Labor Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. These supplemental schedules are the responsibility of the Plan's management. The supplemental schedules have been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, are fairly stated, in all material respects, in relation to the basic financial statements taken as a whole.

/s/KPMG LLP

San Francisco, California
June 22, 2001

Exhibits

23 Consent of Independent Auditors

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the plan) have duly caused this annual report to be signed by the undersigned thereunto duly authorized.

Advanced Polymer Systems, Inc.
Salary Reduction Profit Sharing Plan

Date: June 27, 2001

/s/ Gordon Sangster

Gordon Sangster
Chief Financial Officer

23 Consent of Independent Auditors

CONSENT OF INDEPENDENT AUDITORS

The Board of Directors and Stockholders of AP Pharma, Inc. and the Trustees and Participants in the Advanced Polymer Systems, Inc. Salary Reduction Profit Sharing Plan:

We consent to incorporation by reference in the Registration Statement (No. 33-29084) on Form S-8 of Advanced Polymer Systems, Inc. of our report dated June 22, 2001 relating to the statements of net assets available for benefits of the Advanced Polymer Systems, Inc. Salary Reduction Profit Sharing Plan as of December 31, 2000 and 1999 and the related statements of changes in net assets available for benefits for the years then ended and the supplemental schedules of Schedule H, line 4i - schedule of assets (held at end of year) as of December 31, 2000 and Schedule G, Part III - schedule of nonexempt transactions for the year ended December 31, 2000 which appears in the December 31, 2000 annual report on Form 11-K of the Advanced Polymer Systems, Inc. Salary Reduction Profit Sharing Plan.

/s/KPMG LLP

San Francisco, California
June 27, 2001