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

FORM 10-K

(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, 1998

OR

[_]TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934

Commission file number 0-12477

AMGEN INC.
(Exact name of registrant as specified in its charter)

Delaware	95-3540776
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

One Amgen Center Drive, Thousand Oaks, California 91320-1799
(Address of principal executive offices) (Zip Code)

805-447-1000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(g) of the Act:

Common stock, $.0001 par value, preferred share purchase rights,
Contractual contingent payment rights
(Title of class)

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 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. [_]

The approximate aggregate market value of voting and non-voting stock held by non-affiliates of the registrant was $28,199,071,000 as of February 17, 1999 (A)

512,103,598 (B)
(Number of shares of common stock outstanding as of February 17, 1999)

DOCUMENTS INCORPORATED BY REFERENCE:

Document	Form 10-K Parts
Definitive 1999 Proxy Statement, to be filed within 120 days of December 31, 1998 (specified portions).....	III

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(A) Excludes 51,710,608 shares of common stock held by directors and officers,

and any stockholders whose ownership exceeds five percent of the shares outstanding, at February 17, 1999. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, directly or indirectly, to direct or cause the direction of the management or policies of the registrant, or that such person is controlled by or under common control with the registrant.

(B) All share numbers have been retroactively adjusted to reflect a two-for-one split of the common stock effected in the form of a 100% stock dividend.

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PART I

Item 1. BUSINESS

Overview

Amgen Inc. ("Amgen" or the "Company") is a global biotechnology company that discovers, develops, manufactures and markets human therapeutics based on advances in cellular and molecular biology.

The Company manufactures and markets three human therapeutic products, EPOGEN(R) (Epoetin alfa), NEUPOGEN(R) (Filgrastim) and INFERGEN(R) (Interferon alfacon-1). EPOGEN(R) stimulates the production of red blood cells and is marketed by Amgen in the United States for the treatment of anemia associated with chronic renal failure in patients on dialysis. NEUPOGEN(R) selectively stimulates the production of neutrophils, one type of white blood cell. The Company markets NEUPOGEN(R) in the United States, countries of the European Union ("EU"), Canada and Australia for use in decreasing the incidence of infection in patients undergoing myelosuppressive chemotherapy. In addition, NEUPOGEN(R) is marketed in most of these countries for use in reducing the duration of neutropenia for patients undergoing myeloablative therapy followed by bone marrow transplantation, for reducing symptoms in patients with severe chronic neutropenia, for supporting peripheral blood progenitor cell ("PBPC") transplants and for reducing the recovery time of neutrophils and the duration of fever following chemotherapy treatment in patients being treated for acute myelogenous leukemia ("AML"). NEUPOGEN(R) is also marketed in Australia and Canada for use in treating neutropenia in HIV patients receiving antiviral and/or other myelosuppressive medications. INFERGEN(R) is a non-naturally occurring type-1 interferon which stimulates the immune system to fight viral infections and is indicated for the treatment of chronic hepatitis C viral infection.

The Company focuses its research efforts on secreted protein and small molecule human therapeutics, with particular emphasis on neuroscience and cancer. It concentrates its development efforts on human therapeutics in the areas of hematology, cancer, infectious disease, endocrinology, neurobiology and inflammation (see "--Product Candidates"). The Company has research facilities in the United States and Canada and has clinical development staff in the United States, the EU, Canada, Australia, Japan, Hong Kong and the People's Republic of China. In addition to internal research and development efforts, the Company has established external research collaborations and has acquired certain product and technology rights.

Amgen operates commercial manufacturing facilities located in the United States, Puerto Rico and The Netherlands. A sales and marketing force is maintained in the United States, Europe, Canada and Australia. In addition, Amgen has entered into licensing and co-promotion agreements to market EPOGEN(R), NEUPOGEN(R) and INFERGEN(R) in certain geographic areas.

The Company was incorporated in California in 1980 and was merged into a Delaware corporation in 1987. Amgen's principal executive offices are located at One Amgen Center Drive, Thousand Oaks, California 91320-1799.

Products

Recombinant human erythropoietin

EPOGEN(R) (proper name--Epoetin alfa) is Amgen's registered trademark for its recombinant human erythropoietin product, a protein that stimulates red blood cell production. Red blood cells transport oxygen to all cells of the body. Without adequate amounts of erythropoietin, the red blood cell count is reduced, thereby diminishing the ability of the blood to deliver sufficient amounts of oxygen to the body, resulting in anemia. People with chronic renal failure suffer from anemia because they do not produce sufficient amounts of erythropoietin, which is normally produced in healthy kidneys. EPOGEN(R) is effective in the treatment of anemia associated with chronic renal failure for patients on dialysis and is indicated to elevate or maintain the red blood cell level (as determined by hematocrit or hemoglobin measurements) and to decrease the need for blood transfusions in these patients.

In the United States, Amgen was granted rights to market recombinant human erythropoietin under a licensing agreement with Kirin-Amgen, Inc. ("Kirin-Amgen"), a joint venture between Kirin Brewery Company, Limited ("Kirin") and Amgen (see "Joint Ventures and Business Relationships--Kirin Brewery Company, Limited"). The Company began selling EPOGEN(R) in 1989 when the U.S. Food and Drug Administration ("FDA") approved its use in the treatment of anemia associated with chronic renal failure.

The Company has retained exclusive rights to market EPOGEN(R) in the United States for dialysis patients. Amgen has granted Ortho Pharmaceutical Corporation (which has assigned its rights under the Product License Agreement to Ortho Biotech, Inc.), a subsidiary of Johnson & Johnson, hereafter referred to as "Johnson & Johnson", a license to pursue commercialization of recombinant human erythropoietin as a human therapeutic in the United States in all markets other than dialysis. Johnson & Johnson markets its recombinant human erythropoietin product under the trademark PROCRIT(R) in the United States. See Note 1 to the Consolidated Financial Statements, "Summary of significant accounting policies--Product sales" and Note 4 to the Consolidated Financial Statements, "Contingencies--Johnson & Johnson arbitrations". In countries other than the United States, the People's Republic of China and Japan, Johnson & Johnson was granted rights to pursue the commercialization of erythropoietin as a human therapeutic under a licensing agreement with Kirin-Amgen. Affiliates of Johnson & Johnson manufacture and market erythropoietin under the trademark EPREX(R) in several countries. See "Joint Ventures and Business Relationships--Johnson & Johnson".

In Japan and the People's Republic of China, Kirin was granted rights to market recombinant human erythropoietin under a licensing agreement with Kirin-Amgen (see "Joint Ventures and Business Relationships--Kirin Brewery Company, Limited"). Kirin manufactures and markets its recombinant human erythropoietin product under the trademark ESPO(R).

For EPOGEN(R) sales information for the years ended December 31, 1998, 1997 and 1996, see Note 10 to the Consolidated Financial Statements.

Recombinant human methionyl granulocyte colony stimulating factor

NEUPOGEN(R) (proper name--Filgrastim) is Amgen's registered trademark for its recombinant human methionyl granulocyte colony stimulating factor ("G-CSF"), a protein that selectively stimulates production of certain white blood cells known as neutrophils. Neutrophils are the body's first defense against infection. Treatments for various diseases and diseases themselves can result in extremely low numbers of neutrophils, a condition called neutropenia. Myelosuppressive chemotherapy, one treatment option for individuals with cancer, targets cell types which grow rapidly, such as tumor cells, neutrophils and other types of blood cells. Providing NEUPOGEN(R) as an adjunct to myelosuppressive chemotherapy can reduce the duration of neutropenia and thereby reduce the potential for infection.

Severe chronic neutropenia is an example of disease-related neutropenia. In severe chronic neutropenia, the body fails to manufacture sufficient neutrophils. Chronic administration of NEUPOGEN(R) has been shown to reduce the incidence and duration of neutropenia-related consequences such as fever and infections in patients with severe chronic neutropenia.

Patients undergoing bone marrow transplantation are treated with NEUPOGEN(R) to accelerate recovery of neutrophils following chemotherapy and bone marrow infusion. NEUPOGEN(R) also has been shown to induce immature blood cells (progenitor cells) to migrate (mobilize) from the bone marrow into the blood circulatory system. When these progenitor cells (PBPC) are collected from the blood, stored and re-infused after high dose chemotherapy (transplanted), recovery of platelets, red blood cells and neutrophils is accelerated. PBPC transplantation is becoming an alternative to autologous bone marrow transplantation for some patients.

In the United States, NEUPOGEN(R) was initially indicated to decrease the incidence of infection as manifested by febrile neutropenia for patients with non-myeloid malignancies undergoing myelosuppressive chemotherapy. Subsequently, the FDA approved NEUPOGEN(R) for three additional indications: (1) to reduce

the duration of neutropenia for patients with non-myeloid malignancies undergoing myeloablative therapy followed by bone marrow transplantation; (2) to reduce the incidence and duration of neutropenia-related consequences in symptomatic patients with congenital neutropenia, cyclic neutropenia or idiopathic neutropenia (collectively, severe chronic neutropenia) and (3) for use in mobilization of PBPC for stem cell transplantation. In the EU, Canada and Australia, NEUPOGEN(R) is marketed for these same four indications. Also, regulatory authorities in Australia and Canada approved NEUPOGEN(R) to treat neutropenia in HIV patients receiving antiviral and/or other myelosuppressive medications.

In 1998, NEUPOGEN(R) was additionally approved for reducing the recovery time of neutrophils and the duration of fever following chemotherapy treatment in patients being treated for AML by the FDA, the Committee for Proprietary Medicinal Products (the regulatory body for the EU) and the Canadian regulatory authority. The Company had received a similar approval in Australia in July 1997.

The Company is pursuing additional indications with NEUPOGEN(R). A trial for the treatment of neutropenia in HIV infected patients was completed and a supplemental licensing application for approval of this indication was submitted to the FDA in 1996. The FDA has raised concerns about whether this submission is approvable; the Company is in discussions with the FDA and cannot predict the outcome of these discussions.

In March 1996, NEUPOGEN(R) was approved for use in the United Kingdom (the "UK") as a supportive therapy to treat neutropenia in people with advanced HIV infection. The initial submission to the UK was made as part of the EU mutual recognition procedure that enables companies to seek approvals in other EU countries. Due to the completion of a randomized trial in 1996 that served as the basis for an FDA submission in this indication, the Company decided to supplement the original filing in Europe by submitting these additional data. To facilitate this procedure, it was necessary for the Company to request in February 1997 the withdrawal of the original approval in the UK. In December 1998, the Company resubmitted this application.

The Company is also continuing to investigate the potential benefits of NEUPOGEN(R) for patients with severe pneumonia. In January 1999, the Company announced that the phase 3 study of NEUPOGEN(R) in treating pneumonia with severe sepsis did not demonstrate a statistically significant benefit in reducing mortality. A phase 3 study in patients with multi-lobar pneumonia is ongoing. In addition, clinical trials investigating NEUPOGEN(R) as an adjunct to dose-intensified chemotherapy in patients with various tumor types are ongoing.

The Company began selling NEUPOGEN(R) in the United States in February 1991 pursuant to a licensing agreement with Kirin-Amgen. Kirin markets GRAN(R), its G-CSF product, in Japan, the People's Republic of China, Taiwan and Korea under licensing agreements with Kirin-Amgen (see "Joint Ventures and Business Relationships--Kirin Brewery Company, Limited"). In the EU, NEUPOGEN(R) is commercialized by Amgen and F. Hoffmann-La Roche Ltd ("Roche") under a co-promotion agreement (see "Joint Ventures and Business Relationships--F. Hoffmann-La Roche Ltd"). In geographic areas of the world other than those above, Roche markets NEUPOGEN(R) under licenses from Amgen and Kirin-Amgen (see "Joint Ventures and Business Relationships--Kirin Brewery Company, Limited" and "Joint Ventures and Business Relationships--F. Hoffmann-La Roche Ltd").

For NEUPOGEN(R) sales information for the years ended December 31, 1998, 1997 and 1996, see Note 10 to the Consolidated Financial Statements.

Other products

INFERGEN(R) (proper name--Interferon alfacon-1) is Amgen's registered trademark for its recombinant consensus interferon, a non-naturally occurring protein that combines structural features of many interferon sub-types. Interferons are natural proteins produced by the body which stimulate the immune system to fight

viral infections. Hepatitis C viral infection is a potentially deadly disease that, if not treated, may lead to cirrhosis and hepatocellular carcinoma, or liver cancer.

The Company began selling INFERGEN(R) in the United States in October 1997. Amgen markets INFERGEN(R) for the 24-week treatment of chronic hepatitis C viral infection. The 24-week treatment includes newly diagnosed hepatitis C virus patients as well as patients whose prior treatment with interferon failed and are candidates for subsequent treatment. Results from a 48-week retreatment trial with INFERGEN(R) were submitted in August 1997 and remain under review by the FDA. Retreatment is an important part of interferon therapy since many hepatitis C virus patients fail initial treatment with interferon therapies.

In August 1996, Amgen filed a license application with Canadian regulatory authorities requesting clearance for marketing INFERGEN(R) for the treatment of chronic hepatitis C viral infection. Due to the completion of an additional randomized trial subsequent to this filing, the Company decided to amend the original filing in Canada by submitting these additional data. To facilitate this procedure, it was necessary for the Company to request in November 1997 the withdrawal of the original filing. In December 1997, the Company resubmitted this application.

In 1996, Amgen licensed to Yamanouchi Pharmaceutical Co., Ltd. of Tokyo ("Yamanouchi") the rights to develop, manufacture and commercialize Interferon alfacon-1 for all indications around the world except in the United States and Canada. Yamanouchi granted rights to the Company to co-develop and market Interferon alfacon-1 in Japan, the People's Republic of China, Hong Kong and Taiwan (see "Joint Ventures and Business Relationships--Yamanouchi Pharmaceutical Co., Ltd.").

Product Candidates

The Company focuses its research efforts on secreted protein and small molecule human therapeutics, with particular emphasis on neuroscience and cancer. It concentrates its development efforts on human therapeutics in the areas of hematology, cancer, infectious disease, endocrinology, neurobiology and inflammation (see "Factors That May Affect Amgen--Product development").

Hematology/Cancer/Infectious disease

Hematopoietic growth factors are proteins which influence growth, migration and maturation of certain types of blood cells. STEMGEN(R) (proper name--Ancestim), one of the Company's hematopoietic growth factors, has been shown to influence the production, mobilization and maturation of progenitor cells. Human clinical trials have been completed which investigated the utility of STEMGEN(R) in combination with NEUPOGEN(R) for improved mobilization of progenitor cells prior to PBPC transplantation in patients with breast cancer. In July 1998, the Biologic Response Modifier's Advisory Committee to the FDA voted to recommend approval of STEMGEN(R). The FDA has raised concerns about whether this submission is approvable; the Company is in discussions with the FDA and cannot predict the outcome of these discussions. The Company expects to launch STEMGEN(R) if approved by regulatory authorities. The Company is also investigating the potential benefits of STEMGEN(R) for patients with aplastic anemia in a phase 1/2 study.

The Company is developing a sustained duration version of G-CSF called SD/01. While NEUPOGEN(R) is indicated to reduce the duration and severity of neutropenia, appropriate doses must be administered in a timely manner to be most effective. SD/01 is being developed to provide for less frequent dosing, possibly once-per-cycle of chemotherapy, and thereby potentially improve compliance, patient satisfaction and clinical outcome. SD/01 is in phase 2 clinical trials for treating the duration and severity of neutropenia when administered once-per-cycle of chemotherapy.

Another hematopoietic growth factor in development at Amgen is Novel Erythropoiesis Stimulating Protein ("NESP"). Preliminary data from phase 2 clinical trials suggest that NESP may permit less frequent dosing than Epoetin alfa in the treatment of anemia in dialysis patients with chronic renal failure. The

Company is in phase 3 clinical trials with NESP in treating anemia in dialysis patients with chronic renal failure. NESP is also in phase 2 studies with pre-dialysis patients for the treatment of anemia. Additionally, the Company plans to pursue a clinical development program for NESP in oncology. The Company has entered into an agreement with Kirin to jointly develop NESP through its joint venture, Kirin-Amgen (see "Joint Ventures and Business Relationships--Kirin Brewery Company, Limited" and Note 4 to the Consolidated Financial Statements, "Contingencies--Johnson & Johnson arbitrations").

In 1998, the Company announced that it had discontinued development of its novel platelet growth factor, Megakaryocyte Growth and Development Factor ("MGDF"). In August 1998, the Company announced that several people participating in platelet donation trials had developed low platelet counts and neutralizing antibodies. As a consequence, Amgen discontinued platelet donation clinical trials. In September 1998, the Company announced that it was discontinuing all development of MGDF due to evidence of neutralizing antibodies in a few patients participating in cancer clinical trials and in additional people in the previously discontinued platelet donor clinical trials.

Soft tissue growth factors are believed to play a role in accelerating or improving tissue regeneration and wound healing. In some cases, these agents may also protect tissues from injuries such as those associated with irradiation and chemotherapy. Mucositis is a side effect often experienced by patients undergoing radiation therapy and chemotherapy and is characterized as the irritation or ulceration of the lining of the gastrointestinal tract. Amgen currently is conducting research with Keratinocyte Growth Factor ("KGF") as a treatment for mucositis. Phase 2 clinical studies of KGF in cancer patients suffering from mucositis are ongoing.

Endocrinology/Neurobiology

The Company has discovery programs in endocrinology and neurological disorders. In the area of endocrinology, the Company is currently developing leptin. Leptin is the protein produced by the obesity gene. Leptin is made in fat cells and is believed to help regulate the amount of fat stored by the body. This protein has been shown in some preclinical animal models to produce a reduction in body weight and body fat. The Rockefeller University granted to the Company an exclusive license which allows the Company to develop products based on the obesity gene in 1995. In 1996, Amgen commenced clinical trials with leptin and in June 1997, announced that early, preliminary data suggested that there was a dose range at which leptin had an acceptable safety profile and induced weight loss. In June 1998, data from a phase 1 study investigating treatment with recombinant human (native) leptin in normal and obese subjects demonstrated that leptin caused weight loss in some, but not all, subjects. In September 1998, additional data were presented demonstrating that the weight loss was predominantly due to loss of fat and not lean tissue. In October 1998, the Company announced the results of an interim analysis of preliminary three-month clinical data from two phase 2 studies. This analysis revealed that there was no statistically significant difference in weight loss between native leptin and placebo for the study population as a whole. The Company did identify a commercially attractive subset of patients that achieved significant weight loss and announced plans to conduct an additional phase 2 study to confirm these results. Amgen additionally has a license agreement with Progenitor, Inc. which grants the Company certain exclusive rights for the development and commercialization of products using Progenitor's leptin receptor technology.

Second generation leptin molecules are being developed to address issues surrounding leptin's low solubility. One of these second generation molecules is currently in a phase 2 study in obese patients.

Ongoing clinical trials are evaluating the effect of native leptin in patients with non-insulin dependent (type II) diabetes. Leptin is being evaluated in combination with sulfonylurea in a phase 2 study involving type II diabetic patients. In addition, leptin is being evaluated as a mono-therapy in a second phase 2 study involving type II diabetic patients.

Another focus of the Company's effort in endocrinology is in the area of hyperparathyroidism ("HPT"). Primary HPT is a disorder that causes excessive secretion of parathyroid hormone from the parathyroid gland,

leading to elevated serum calcium, called hypercalcemia. This disorder currently lacks effective treatment other than surgery. Secondary HPT is commonly seen as a result of kidney failure, affecting a majority of dialysis patients. Symptoms of HPT include bone loss, muscle weakness, depression and forgetfulness. The Company has entered into a license agreement with NPS Pharmaceuticals, Inc. ("NPS") for Amgen to develop and commercialize NPS's calcimimetic small molecules based on NPS's proprietary calcium receptor technology for the treatment of HPT. In 1997, Amgen completed a clinical trial in secondary HPT with the initial calcimimetic product candidate, R-568. As a result of more favorable metabolic and kinetic profiles, a second generation calcimimetic compound was selected for clinical evaluation. The Company is in separate phase 2 studies for primary and secondary HPT with this second generation calcimimetic compound.

An early candidate to emerge from the Company's genomics program is Osteoprotegerin ("OPG"). OPG is implicated in the regulation of bone mass. Bone mass is maintained in the body by the regulation of the competing activities of bone-forming cells (osteoblasts) and bone resorbing cells (osteoclasts). Cancer metastasis to bone causes bone destruction, leading to fractures and bone pain, which are two of the most common and debilitating complications of cancer. OPG has been shown to inhibit the osteoclast-mediated bone destruction induced by invading cancer cells. Low bone mass is thought to be a result of bone breaking down more quickly than it is formed. Osteoporosis is characterized by low bone mass leading to fragile bones and increased susceptibility to fractures. In September 1998, the Company announced that a phase 1 study of OPG in healthy post-menopausal women had been initiated.

Neurotrophic factors are proteins which play a role in nerve cell protection and regeneration and which may therefore be useful in treating a variety of neurological disorders, including neurodegenerative diseases of the central and peripheral nervous systems, nerve injury and trauma. Glial cell-line derived neurotrophic factor ("GDNF") is in clinical studies for possible use in the treatment of Parkinson's disease. GDNF was added to the Company's neurobiology research program through the acquisition of Synergen, Inc. ("Synergen") (see "Joint Ventures and Business Relationships--Other business relationships"). A phase 1/2 clinical study in patients with Parkinson's disease is ongoing.

Human clinical testing of brain-derived neurotrophic factor ("BDNF"), is currently being conducted in collaboration with Regeneron Pharmaceuticals, Inc. ("Regeneron") (see "Joint Ventures and Business Relationships--Regeneron Pharmaceuticals, Inc."). In January 1997, Amgen announced that a phase 3 clinical trial investigating subcutaneous delivery of BDNF for the treatment of patients with amyotrophic lateral sclerosis ("ALS") did not demonstrate clinical efficacy in the endpoints measured in patients with this disease. Regeneron continues to investigate subcutaneous administration of BDNF in ALS patients on behalf of the collaboration with the Company. Amgen is currently conducting a phase 2 clinical trial investigating intrathecal delivery of BDNF in patients with ALS.

On behalf of the collaboration with the Company, Regeneron is conducting a number of small clinical studies with Neurotrophin-3 ("NT-3"). During 1997, Amgen announced the collaboration will not pursue additional trials of NT-3 in diabetic neuropathy or chemotherapy-induced neuropathy because initial results were not sufficiently promising.

In 1997, Amgen acquired the rights from Guilford Pharmaceuticals Inc. ("Guilford") for a novel class of small molecule, orally-active, neurotrophic agents called neuroimmunophilin compounds (see "Joint Ventures and Business Relationships--Other business relationships"). The neuroimmunophilin compounds are being developed to promote nerve regeneration and repair in neurodegenerative disorders. In preclinical models, neuroimmunophilin compounds have been shown to promote recovery in models of nerve injury and Parkinson's disease. Amgen has commenced preclinical studies and it is likely that the first disease targeted for study in humans will be Parkinson's disease.

Inflammation

The inflammatory response is essential for defense against harmful micro-organisms and for the repair of damaged tissues. The failure of the body's control mechanisms regulating inflammatory response occurs in conditions such as rheumatoid arthritis, acute respiratory distress syndrome and asthma. Tumor necrosis factor binding protein ("TNFbp") and interleukin-1 receptor antagonist ("IL-1ra") were two product candidates added to the Company's inflammation research program through the acquisition of Synergen (see "Joint Ventures and Business Relationships--Other business relationships").

A human clinical trial for TNFbp was completed for possible use in the treatment of rheumatoid arthritis. Because of potential issues with immunogenicity, a second generation molecule, soluble tumor necrosis factor-receptor I ("sTNF-RI"), was developed, and the Company does not intend to pursue further development of the first generation TNFbp. A phase 1 study of sTNF-RI in patients with rheumatoid arthritis has been completed.

A phase 2 clinical trial of IL-1ra in combination with methotrexate in patients with rheumatoid arthritis has completed enrollment. The Company is also researching second generation molecules and sustained duration formulations which have demonstrated some additional benefit in preclinical studies over the first generation product candidate. Phase 1 studies of IL-1ra delivered by continuous infusion have been completed.

In September 1997, Amgen announced that it was seeking a corporate partner for its inflammation research and development programs, located in Boulder, Colorado. Following an approximate six month period during which Amgen considered a number of corporate partnering alternatives, the Company announced in April 1998 that it had decided to retain its principal product candidates, sTNF-RI and IL-1ra, and relocated their respective development programs to Thousand Oaks. Amgen discontinued the discovery research programs.

Joint Ventures and Business Relationships

The Company generally intends to self-market its products. From time to time it may supplement this effort by using joint ventures and other business relationships to provide additional marketing and product development capabilities in certain countries. In addition to internal research and development efforts, the Company has established external research collaborations and has acquired certain product and technology rights. Amgen has established the relationships described below and may establish others in the future.

F. Hoffmann-La Roche Ltd

Amgen and Roche have entered into a long-term agreement providing for the commercialization of NEUPOGEN(R) (Filgrastim) in the EU. Under this agreement, the companies collaborate in the EU on the commercialization and further clinical development of the product and share in related costs and profits from sales. Amgen has most of the responsibilities for marketing, promotion, distribution and other key functions relating to product sales, and the Company distributes the product in most EU countries from its European Logistics Center. Amgen and Roche are collaborating on the development of a second generation G-CSF product for the EU.

Amgen and Roche have also entered into an agreement to commercialize NEUPOGEN(R) in certain European countries not located within the EU. Under this agreement, Roche markets NEUPOGEN(R) in these countries and pays a royalty to Amgen on these sales.

Johnson & Johnson

Amgen granted Johnson & Johnson a license to pursue commercialization of recombinant human erythropoietin as a human therapeutic in the United States in all markets other than dialysis. The Company is engaged in arbitration proceedings regarding this license. For a discussion of this matter, see Note 4 to the

Consolidated Financial Statements, "Contingencies--Johnson & Johnson arbitrations". In countries other than the United States, the People's Republic of China and Japan, Johnson & Johnson was granted rights to pursue the commercialization of human erythropoietin as a human therapeutic for all uses under a licensing agreement with Kirin-Amgen.

Kirin Brewery Company, Limited

The Company has a 50-50 joint venture (Kirin-Amgen) with Kirin. Kirin-Amgen, which was formed in 1984, develops and commercializes certain of the Company's and Kirin's technologies which have been transferred to this joint venture. Kirin-Amgen has given exclusive licenses to Amgen and Kirin to manufacture and market erythropoietin in the United States and Japan, respectively. Kirin-Amgen has licensed to Johnson & Johnson rights to erythropoietin in certain geographic areas of the world (see "--Johnson & Johnson"). Kirin-Amgen has also granted Amgen an exclusive license to manufacture and market G-CSF in the United States, Europe, Canada, Australia and New Zealand. Kirin-Amgen has licensed to Kirin similar rights with respect to G-CSF in Japan, Taiwan and Korea. Kirin markets recombinant human erythropoietin and recombinant human methionyl granulocyte colony stimulating factor in the People's Republic of China under a separate agreement. Kirin-Amgen and Roche have entered into an agreement to commercialize NEUPOGEN(R) in certain territories not covered by the various Amgen/Roche agreements (see "--F. Hoffmann-La Roche Ltd"). Under this agreement, Roche markets NEUPOGEN(R) in these countries and pays a royalty to Kirin-Amgen on these sales.

In 1994, Kirin-Amgen licensed to Amgen and Kirin the rights to develop and market MGDF, and in 1996, to develop and market NESP (see Note 4 to the Consolidated Financial Statements, "Contingencies--Johnson & Johnson arbitrations"). Amgen has been granted an exclusive license by Kirin-Amgen to manufacture and market these two product candidates in the United States, all European countries, Canada, Australia, Mexico and New Zealand. In addition, with respect to NESP, Amgen's license extends to all Central and South American countries. Kirin has been licensed by Kirin-Amgen with similar rights for these two product candidates in Japan, the People's Republic of China, Taiwan, Korea and certain other countries in Southeast Asia.

Pursuant to the terms of agreements entered into with Kirin-Amgen, the Company conducts certain research and development activities on behalf of Kirin-Amgen and is paid for such services at negotiated rates. Included in revenues from corporate partners in the Company's Consolidated Financial Statements for the years ended December 31, 1998, 1997 and 1996, are $121 million, $87.9 million and $79.9 million, respectively, related to these agreements.

In connection with its various agreements with Kirin-Amgen, the Company has been granted sole and exclusive licenses for the manufacture and sale of certain products in specified geographic areas of the world. In return for such licenses, the Company paid Kirin-Amgen stated amounts upon the receipt of the licenses and/or pays Kirin-Amgen royalties based on sales. During the years ended December 31, 1998, 1997 and 1996, Kirin-Amgen earned royalties from Amgen of $105 million, $91.4 million and $86.2 million, respectively, under such agreements.

Yamanouchi Pharmaceutical Co., Ltd.

In 1996, Amgen licensed to Yamanouchi the rights to develop, manufacture and commercialize Interferon alfacon-1 for the treatment of hepatitis C viral infection and any additional indications around the world except in the United States and Canada. Amgen markets Interferon alfacon-1 under the trademark INFERGEN(R) in the United States. Amgen has earned and will earn additional amounts if certain milestones are achieved by Yamanouchi and will receive royalties on sales. Yamanouchi has granted to Amgen K.K., the Company's Japanese subsidiary, certain co-development and co-promotion/co-marketing rights in Japan and has granted to Amgen Greater China, Ltd., Amgen's subsidiary in Hong Kong, certain co-development and co-promotion rights in the People's Republic of China, Hong Kong and Taiwan.

Regeneron Pharmaceuticals, Inc.

In 1990, the Company entered into a collaboration agreement with Regeneron to co-develop and commercialize BDNF and NT-3 in the United States. To facilitate this collaboration, the Company and Regeneron formed Amgen-Regeneron Partners, a 50-50 partnership. In addition, Regeneron licensed these potential products to Amgen for development in certain other countries.

Other business relationships

In December 1994, the Company acquired Synergen, a biotechnology company engaged in the discovery and development of protein-based pharmaceuticals. With the acquisition of Synergen, Amgen principally added GDNF and Synergen's inflammation program to its product candidate pipeline.

Synergen Clinical Partners, L.P. ("SCP"), the general partner of which was a subsidiary of Synergen, was formed to fund development and commercialization of IL-1ra in certain geographic areas. As a result of the acquisition of Synergen, the general partner of SCP became a subsidiary of Amgen. In connection with the settlement of certain litigation relating to Synergen and SCP, Amgen acquired all of the limited partnership units of SCP and, pursuant to the terms of the settlement, terminated SCP. Amgen may be required to pay future amounts to the former limited partners that were members of the plaintiff class, other members of the plaintiff class and their counsel if the FDA should grant approval to market IL-1ra (as more specifically defined in the related settlement agreement) and certain product revenues are realized.

In 1997, Amgen and Guilford entered into an agreement granting Amgen worldwide rights for Guilford's neuroimmunophilin compounds, a novel class of small molecule neurotrophic agents that may represent a new approach in the treatment of neurodegenerative disorders. Under the terms of the agreement, Amgen will receive worldwide rights to neuroimmunophilin compounds for all human therapeutic and diagnostic applications. Amgen will conduct and pay for all clinical development and manufacturing of products, market products worldwide and pay royalties to Guilford on such sales. In connection with this agreement, Amgen made a $20 million equity investment in Guilford.

Also in 1997, Amgen and SangStat Medical Corporation ("SangStat") entered into a licensing agreement for the registration, marketing and distribution of SangStat's proprietary CYCLOSPORINE product candidate, an immunosuppressive drug used in transplantation to prevent graft rejection. Under the terms of the agreement, Amgen will have exclusive rights to market CYCLOSPORINE under SangStat's trademark in Australia, New Zealand, Hong Kong, the People's Republic of China and Taiwan.

In 1998, Amgen entered into an agreement with The Liposome Company, Inc. ("TLC") to market TLC's product candidate, ABELCET(R), in Australia and New Zealand. ABELCET(R) is a proprietary drug developed and manufactured by TLC to treat severe, systemic fungal infections which occur primarily in patients whose immune systems are compromised, such as cancer patients undergoing chemotherapy, bone marrow transplant ("BMT") recipients, solid organ transplant recipients and AIDS patients.

In March 1999, Amgen entered into a collaboration with PRAECIS PHARMACEUTICALS INCORPORATED ("Praecis") under which Praecis and Amgen will develop, and Amgen will commercialize in the United States, Canada, Australia, Asia and several secondary markets, a product candidate known as abarelix. Abarelix is currently in phase 3 clinical trials in the United States to treat patients with hormonally-responsive prostate cancer. A second formulation is in a phase 1/2 clinical trial in the United States to treat patients with endometriosis.

Marketing

Amgen uses wholesale distributors of pharmaceutical products as the principal means of distributing the Company's products to clinics, hospitals and pharmacies. The Company monitors the financial condition of its larger distributors and limits its credit exposure by setting appropriate credit limits and requiring collateral from

certain customers. Sales to two large wholesalers accounted for more than 10% of the total revenues for the years ended December 31, 1998, 1997 and 1996. Sales to one of these wholesalers, Bergen Brunswig Corporation, were $856.2 million, $580.9 million and $531 million for the years ended December 31, 1998, 1997 and 1996, respectively. Sales to the other wholesaler, Cardinal Distribution, were $366.5 million, $333.8 million and $313.6 million for the years ended December 31, 1998, 1997 and 1996, respectively.

Dialysis providers are primarily reimbursed for EPOGEN(R) by the federal government through the End Stage Renal Disease Program ("ESRD Program") of Medicare. The ESRD Program reimburses approved providers for 80% of allowed dialysis costs; the remainder is paid by other sources, including Medicaid, private insurance, and to a lesser extent, state kidney patient programs. The ESRD Program reimbursement rate is established by Congress and is monitored by the Health Care Financing Administration ("HCFA"). In 1997 and 1998, HCFA implemented reimbursement changes that affected sales of EPOGEN(R). See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations--Results of Operations--Product sales--EPOGEN(R) (Epoetin alfa)". The Clinton administration has proposed a Medicare cost savings plan which includes a provision for cutting Medicare reimbursement to dialysis providers for EPOGEN(R) by 10%. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations--Financial Outlook". Changes in coverage and reimbursement policies could have a material adverse effect on EPOGEN(R) sales (see "Factors That May Affect Amgen--Reimbursement; Third party payors").

NEUPOGEN(R) is reimbursed by both private and public payors, and changes in coverage and reimbursement policies of these payors could have a material adverse effect on sales of NEUPOGEN(R) (see "Factors That May Affect Amgen--Reimbursement; Third party payors"). The Clinton administration has proposed a reduction in the basis upon which Medicare reimburses for outpatient prescription drugs, including NEUPOGEN(R). See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations--Financial Outlook".

In the EU, Amgen and Roche share commercialization responsibilities for NEUPOGEN(R) under a co-promotion agreement (see "Joint Ventures and Business Relationships--F. Hoffmann-La Roche Ltd"). NEUPOGEN(R) is principally distributed to wholesalers and/or hospitals in all EU countries depending upon the distribution practice for hospital products in each country. Most patients receiving NEUPOGEN(R) for approved indications are covered by government health care programs. The use of NEUPOGEN(R) is affected by EU government pressures on physician prescribing practices in response to ongoing government initiatives to reduce health care expenditures, and to a lesser extent, competition. Amgen's share of the colony stimulating factor market in the EU has remained relatively constant over the last few years, however, the Company expects that the competitive intensity may increase in the near future.

In Canada and Australia, NEUPOGEN(R) is marketed by the Company directly to hospitals, pharmacies and medical practitioners. Distribution is handled by third party contractors.

INFERGEN(R) reimbursement is through both private and public sources, with primary reimbursement through private payors. Private and public payors continue to evaluate the clinical efficacy, dosing regimen and cost of INFERGEN(R) in order to formulate coverage and reimbursement policies.

Competition

Competition among biotechnology, pharmaceutical and other companies that research, develop, manufacture or market pharmaceuticals is intense and is expected to increase. See "Factors That May Affect Amgen--Competition". Some competitors, principally large pharmaceutical corporations, have greater clinical, research, regulatory and marketing resources and experience than the Company. In addition, certain specialized biotechnology firms have entered into cooperative arrangements with major companies for development and commercialization of products, creating an additional source of competition. The Company faces competition with respect to products which it manufactures and markets from firms in the United States, countries of the

EU, Canada, Australia and elsewhere. Additionally, some of the Company's competitors, including biotechnology and pharmaceutical companies, are actively engaged in the research and development of products in areas where the Company is also developing product candidates, as more fully discussed below.

The introduction of new products or the development of new processes by competitors or new information about existing products may result in product replacements or price reductions, even for products protected by patents. In addition, the timing of entry of a new product into the market can be an important factor in determining the product's eventual success and profitability. Early entry may have important advantages in gaining product acceptance and market share. Accordingly, in some cases, the relative speed with which the Company can develop products, complete the testing and approval process and supply commercial quantities of the product to the market is expected to be important to Amgen's competitive position. Competition among pharmaceutical products approved for sale also may be based on, among other things, patent position, product efficacy, safety, reliability, availability and price.

A significant amount of research and development in biotechnology is conducted by small biotechnology companies, academic institutions, governmental agencies and other public and private research organizations. These entities may seek patent protection and enter into licensing arrangements to collect royalties for use of technology they have developed. Amgen also may face competition in its licensing or acquisition activities from pharmaceutical companies and large biotechnology companies that also seek to acquire technologies from these entities. Accordingly, the Company may have difficulty acquiring technology on acceptable terms. Additionally, the Company competes with these entities and pharmaceutical and biotechnology companies with respect to attracting and retaining qualified scientific and technical personnel.

Any products or technologies that are directly or indirectly successful in addressing anemia could negatively impact the market for recombinant human erythropoietin or NESP. Hoechst Marion Roussel, Inc. is currently conducting clinical trials on gene-activated erythropoietin for the treatment of anemia (see "Item 3. Legal Proceedings--Transkaryotic Therapies and Hoechst litigation"). In addition, Alkermes, Inc. and Johnson & Johnson are currently conducting clinical trials with a sustained delivery formulation of Epoetin alfa for the treatment of anemia.

Similarly, any products or technologies that are directly or indirectly successful in addressing the causes or incidence of low levels of neutrophils could negatively impact the market for G-CSF. These include products that could receive approval for indications similar to those for which NEUPOGEN(R) has been approved, development of chemotherapy treatments that are less myelosuppressive than existing treatments and the development of anti-cancer modalities that reduce the need for myelosuppressive chemotherapy. NEUPOGEN(R) currently faces market competition from a competing CSF product, granulocyte macrophage colony stimulating factor ("GM-CSF") and from the chemoprotectant, amifostine. Potential future sources of competition include other G-CSF products, GM-CSF products, FLT-3 ligand, lisofylline, IL-11, myelopoietin, PGG-glucan, promegapoietin, and progenipoietin, among others.

Chugai Pharmaceuticals Co., Ltd. ("Chugai") markets a G-CSF product in Japan as an adjunct to chemotherapy and as a treatment for BMT patients. Chugai and Rhone-Poulenc Rorer Inc. market a G-CSF product in certain EU countries as an adjunct to chemotherapy and as a treatment in BMT settings. The Company believes that Chugai plans to expand its presence in Europe. Chugai, through its licensee, AMRAD, markets this G-CSF product in Australia as an adjunct to chemotherapy and as a treatment for BMT patients. Under an agreement with Amgen, Chugai is precluded from selling its G-CSF product in the United States, Canada and Mexico.

Immunex Corp. markets two formulations of GM-CSF in the United States for BMT and PBPC transplant patients and as an adjunct to chemotherapy treatments for acute non-lymphocytic leukemia ("ANLL") and AML. Immunex Corp. is also pursuing other indications for its GM-CSF product including use in treating HIV-infected patients, other infectious diseases and as an adjunct to chemotherapy outside the limited settings of ANLL and AML. Novartis AG markets another GM-CSF product for use in BMT patients, as an adjunct to

chemotherapy and as an adjunct to gancyclovir treatment of HIV-infected patients in the EU and certain other countries. This GM-CSF product is currently being developed for similar indications in the United States and Canada. Nartograstim, a modified G-CSF protein, is sold by Kyowa Hakko Kogyo Co., Ltd. in Japan.

Other products which address potential markets for G-CSF may be identified and developed by competitors in the future. Such products could also present competition in potential markets for STEMGEN(R) and SD/01.

Although not approved or promoted for use in the United States, the Company believes that approximately 5% of its worldwide NEUPOGEN(R) sales are from off-label use as supportive therapy for various AIDS-related treatments. Changes in AIDS treatments, including therapies that may be less myelosuppressive, may affect such sales.

INFERGEN(R) faces competition from other interferons and related products, several of which are in development or on the market. Schering-Plough Corporation and Roche are major suppliers of interferons. Interferon Sciences, Inc. could be a potential competitor in this arena. (See "Item 3. Legal Proceedings--INFERGEN(R) litigation").

Many companies are developing products that promote wound healing, soft tissue regeneration and chemoprotection. Companies such as Human Genome Sciences, Inc., Cell Therapeutics, Inc., Genetics Institute, Inc. and U.S. Bioscience, Inc./ALZA Corporation are currently among many companies that are developing products which could be potential competitors for KGF.

Many companies currently market or are believed to be developing obesity treatments. Potential future competitors of the Company with respect to leptin include Millennium Pharmaceuticals, Inc. (in collaboration with Roche), Neurogen Inc. (in collaboration with Pfizer Inc.), Bristol Myers Squibb Company, Novartis AG, Eli Lilly and Company and Merck & Co., Inc. Knoll AG (a subsidiary of BASF AG) and Roche currently market obesity treatments in various countries.

Calcimimetic small molecules would face competition from products currently marketed by Abbott Laboratories, Genzyme Corporation and Roche which treat secondary HPT. In addition, other products to treat HPT are currently being developed by Abbott Laboratories, Bone Care International, Inc. (a subsidiary of the Lunar Corporation) and Chugai.

Osteoprotegerin would face competition from products currently marketed by Eli Lilly and Company, Merck & Co., Inc., American Home Products Corporation ("AHP"), Novartis AG, The Procter & Gamble Company and Hoechst Marion Roussel, Inc. for the treatment of osteoporosis. In addition, other products to treat osteoporosis are currently being developed by Roche, Novartis AG, Pfizer Inc. and SmithKline Beecham Corporation.

Several companies are developing neurotrophic factors including Abbott Laboratories, Astra AB, Cephalon Inc., Genentech, Inc., Regeneron, SIBIA Neurosciences and Vertex Pharmaceuticals Incorporated.

The Company would face competition from a number of companies in the inflammation disease arena, particularly for rheumatoid arthritis treatments. Current anti-arthritic treatments include generic methotrexate and other products marketed by Centocor, Inc., Immunex Corp./AHP, Merck & Co., Inc., Monsanto Company, Novartis AG, Sanofi and G.D. Searle & Co./Pfizer Inc. In addition, a number of companies have cytokine inhibitors in development including Genentech, Inc./Roche, Genetics Institute, Inc., Inhale Therapeutic Systems Inc., Knoll AG, SmithKline Beecham Corporation and Taisho Pharmaceutical Co., Ltd.

Research and Development

The Company's primary sources of new product candidates are internal research and development, acquisition and licensing from third parties. Amgen's internal research capabilities include an expertise in

secreted protein therapeutics. Additionally, the Company has emerging small molecule capabilities that include combinatorial chemistry, biosystems and the use of high throughput screening to potentially develop novel, orally available therapeutic product candidates. Amgen's capabilities in these areas complement its human genome program; however, Amgen has only recently entered the small molecule field (see "--Competition"). The Company's human genome program may yield genes that both lead to the development of secreted protein therapeutics and provide targets for orally available small molecules. Research and development expenses for the years ended December 31, 1998, 1997 and 1996 were $663.3 million, $630.8 million and $528.3 million, respectively.

Government Regulation

Regulation by governmental authorities in the United States and other countries is a significant factor in the production and marketing of the Company's products and its ongoing research and development activities (see "Factors That May Affect Amgen--Regulatory matters").

In order to clinically test, manufacture and market products for therapeutic use, Amgen must satisfy mandatory procedures and safety standards established by various regulatory bodies. In the United States, the federal Food, Drug and Cosmetic Act, as amended, and the regulations promulgated thereunder, and other federal and state statutes and regulations govern, among other things, the testing, manufacture, labeling, storage, record keeping, approval, advertising and promotion of the Company's products on a product-by-product basis. Product development and approval within this regulatory framework take a number of years and involve the expenditure of substantial resources. After preclinical testing, laboratory analysis and testing in animals, an investigational new drug application is filed with the FDA to begin human testing. A three-phase human clinical testing program must then be undertaken. In phase 1, studies are conducted to determine the safety of the product. In phase 2, studies are conducted to assess safety, acceptable dose and gain preliminary evidence of the efficacy of the product. In phase 3, studies are conducted to provide sufficient data for the statistically valid proof of safety and efficacy. The time and expense required to perform this clinical testing can vary and can be substantial. No action can be taken to market any therapeutic product in the United States until an appropriate license application has been approved by the FDA. Even after initial FDA approval has been obtained, further studies may be required to provide additional data on safety and would be required to gain clearance for the use of a product as a treatment for clinical indications other than those initially approved. In addition, use of products during testing and after initial marketing could reveal side effects that could delay, impede or prevent marketing approval, limit uses or expose the Company to product liability claims.

In addition to regulating clinical testing in humans, the FDA inspects equipment and facilities used in the manufacturing of such products prior to providing approval to market a product. If after receiving clearance from the FDA, a material change is made in manufacturing equipment, location or process, additional regulatory review may be required. The Company also must adhere to current Good Manufacturing Practices and biologics-specific regulations enforced by the FDA through its facilities inspection program. The FDA conducts regular, periodic visits to re-inspect equipment and facilities following the initial approval. If, as a result of these inspections, the FDA determines that the Company's equipment and facilities do not comply with applicable FDA regulations, the FDA may impose penalties on Amgen, including suspending the Company's manufacturing operations.

In the EU countries, Canada and Australia, regulatory requirements and approval processes are substantially similar in principle to those in the United States. Additionally, in the EU, the registration procedure for biotechnology products is through a "centralized procedure". This procedure leads to the granting of a single license that is valid for the entire EU but requires that all EU countries approve the submission first.

The Company is also subject to various federal and state laws pertaining to health care "fraud and abuse", including anti-kickback laws and false claims laws. Anti-kickback laws make it illegal for a prescription drug manufacturer to solicit, offer, receive or pay any remuneration in exchange for, or to induce,

the referral of business, including the purchase or prescription of a particular drug. The federal government has published regulations that identify "safe harbors" or exemptions for certain payment arrangements that do not violate the anti-kickback statutes. The Company seeks to comply with the safe harbors where possible. Due to the breadth of the statutory provisions and the absence of guidance in the form of regulations or court decisions addressing some of the Company's practices, it is possible that the Company's practices might be challenged under anti-kickback or similar laws. False claims laws prohibit anyone from knowingly and willingly presenting, or causing to be presented for payment to third party payors (including Medicare and Medicaid) claims for reimbursed drugs or services that are false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services. Amgen's activities relating to the sale and marketing of its products may be subject to scrutiny under these laws. Violations of fraud and abuse laws may be punishable by criminal and/or civil sanctions, including fines and civil monetary penalties, as well as the possibility of exclusion from federal health care programs (including Medicare and Medicaid). The Company believes its sales, marketing and other activities comply with all such laws although there can be no assurance that the Company's activities will not be subject to challenge for the reasons discussed above and due to the broad scope of these laws and the increasing attention being given to them by law enforcement authorities.

Since 1991, the Company has participated in the Medicaid rebate program established by the Omnibus Budget Reconciliation Act of 1990, and under amendments of that law that became effective in 1993, participation has included extending comparable discounts under the Public Health Service ("PHS") pharmaceutical pricing program. Under the Medicaid rebate program, the Company pays a rebate for each unit of its product reimbursed by Medicaid. The amount of the rebate for each product is set by law as a minimum 15.1% of the average manufacturer price ("AMP") of that product, or if it is greater, the difference between AMP and the best price available from the Company to any customer. The rebate amount also includes an inflation adjustment if AMP increases faster than inflation. The PHS pricing program extends discounts comparable to the Medicaid rebate to a variety of community health clinics and other entities that receive health services grants from the PHS, as well as hospitals that serve a disproportionate share of poor Medicare and Medicaid beneficiaries. The rebate amount is recomputed each quarter based on the Company's reports of its current average manufacturer price and best price for each of its products to HCFA. The terms of the Company's participation in the program impose an obligation to correct the prices reported in previous quarters, as may be necessary. Any such corrections could result in an overage or underage in the Company's rebate liability for past quarters, depending on the direction of the correction. In addition to retroactive rebates (and interest, if any), if the Company were found to have knowingly submitted false information to the government, in addition to other penalties available to the government, the statute provides for civil monetary penalties in the amount of $100,000 per item of false information.

The Company also makes its products available to authorized users of the Federal Supply Schedule ("FSS") of the General Services Administration. Since 1993, as a result of the Veterans Health Care Act of 1992 (the "VHC Act"), federal law has required that product prices for purchases by the Veterans Administration, the Department of Defense, Coast Guard and the PHS (including the Indian Health Service) be discounted by a minimum of 24 percent off the AMP to non-federal customers (the non-federal average manufacturer price, "non-FAMP"). The Company's computation and report of non-FAMP is used in establishing the price, and the accuracy of the reported non-FAMP may be audited by the government under applicable federal procurement laws. Among the remedies available to the government for infractions of these laws is recoupment of any overages paid by FSS users during the audited years. In addition, if the Company were found to have knowingly reported a false non-FAMP, the VHC Act provides for civil monetary penalties of $100,000 per item that is incorrect.

Amgen is also subject to regulation under the Occupational Safety and Health Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other current and potential future federal, state or local regulations. The Company's research and development activities involve the controlled use of hazardous materials, chemicals, biological materials and various radioactive compounds. The Company believes that its procedures comply with the standards prescribed by state and federal regulations; however, the risk of

injury or accidental contamination cannot be completely eliminated. Amgen's research and manufacturing activities also are conducted in voluntary compliance with the National Institutes of Health Guidelines for Recombinant DNA Research.

Additionally, the U.S. Foreign Corrupt Practices Act, to which the Company is also subject, prohibits corporations and individuals from engaging in certain activities to obtain or retain business or to influence a person working in an official capacity. It is illegal to pay, offer to pay, or authorize the payment of anything of value to any foreign government official, government staff member, political party or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. The Company's present and future business has been and will continue to be subject to various other laws and regulations.

Patents and Trademarks

Patents are very important to the Company in establishing proprietary rights to the products it has developed. The patent positions of pharmaceutical and biotechnology companies, including the Company, can be uncertain and involve complex legal, scientific and factual questions. See "Factors That May Affect Amgen--Intellectual property and legal matters".

The Company has filed applications for a number of patents and has been granted patents relating to its erythropoietin, G-CSF, consensus interferon and various potential products. In the United States, the U.S. Patent and Trademark Office (the "USPTO") has issued to the Company patents relating to erythropoietin that cover DNA and host cells (issued 1987); processes for making erythropoietin (issued 1995 and 1997); and certain product rights to erythropoietin (issued 1996 and 1997). The last to issue erythropoietin patents expire in 2013; all other patents expire prior to then. The USPTO has also issued to the Company patents relating to aspects of DNAs, vectors, cells and processes relating to recombinant G-CSF (issued 1989); other aspects of DNAs, vectors, cells and processes relating to recombinant G-CSF (issued 1991); G-CSF polypeptides (issued 1996); methods of treatment using G-CSF polypeptides (issued 1996); methods of enhancing bone marrow transplantation and treating burn wounds (issued 1997); and methods for recombinant production of G-CSF (issued 1998). The last to issue G-CSF patents expire in 2014; all other patents expire prior to then.

There can be no assurance that Amgen's patents will afford legal protection against competitors or provide significant proprietary protection or competitive advantage. In addition, there can be no assurance that Amgen's patents will not be held invalid or unenforceable by a court, infringed or circumvented by others or that others will not obtain patents that the Company would need to license or circumvent. Competitors or potential competitors may have filed patent applications or received patents, and may obtain additional patents and proprietary rights relating to proteins, compounds or processes competitive with those of the Company.

In general, the Company has obtained licenses from various parties which it deems to be necessary or desirable for the manufacture, use or sale of its products. These licenses generally require Amgen to pay royalties to the parties on product sales. In addition, other companies have filed patent applications or have been granted patents in areas of interest to the Company. There can be no assurance any licenses required under such patents will be available for license on acceptable terms or at all. The Company is engaged in various legal proceedings relating to certain of its patents. See "Item 3. Legal Proceedings".

Trade secret protection for its unpatented confidential and proprietary information is important to Amgen. To protect its trade secrets, the Company generally requires its employees, material consultants, scientific advisors and parties to collaboration and licensing agreements to execute confidentiality agreements upon the commencement of employment, the consulting relationship or the collaboration or licensing arrangement with the Company. There can be no assurance, however, that others will not either develop independently the same or similar information or obtain access to Amgen's proprietary information.

The Company has obtained U.S. registration of its EPOGEN(R), NEUPOGEN(R), INFERGEN(R) and STEMGEN(R) trademarks. In addition, these trademarks have been registered in several other countries.

Manufacturing and Raw Materials

Amgen has manufacturing facilities which produce its commercial quantities of Epoetin alfa, NEUPOGEN(R) (Filgrastim) and INFERGEN(R) (Interferon alfacon-1) (see "Item 2. Properties"). The Company additionally supplies Epoetin alfa to Johnson & Johnson under a supply agreement and utilizes an outside party to perform the filling process for such vials. There can be no assurance that the Company will be able to accurately anticipate future demand for Epoetin alfa, NEUPOGEN(R) and INFERGEN(R) or maintain adequate manufacturing capacity (see "Factors That May Affect Amgen--Rapid growth").

Certain raw materials necessary for the Company's commercial manufacturing of its products are proprietary products of other companies, and in some cases, such proprietary products are specifically cited in the Company's drug application with the FDA such that they must be obtained from that specific, sole source. The Company currently attempts to manage the risk associated with such sole sourced raw materials by active inventory management. Amgen attempts to remain apprised of the financial condition of its suppliers, their ability to supply the Company's needs and the market conditions for these raw materials. Also, certain of the raw materials required in the commercial manufacturing of the Company's products are derived from biological sources. Biological sources may be subject to contamination and/or recall. The Company is investigating screening procedures with respect to certain biological sources and alternatives to them. However, a material shortage, contamination and/or recall could adversely impact or disrupt Amgen's commercial manufacturing of its products.

Human Resources

As of December 31, 1998, the Company had approximately 5,500 employees, of which approximately 2,800 were engaged in research and development, approximately 1,100 were engaged in sales and marketing and approximately 1,600 were engaged in other areas. There can be no assurance that the Company will be able to continue attracting and retaining qualified personnel in sufficient numbers to meet its needs. None of the Company's employees are covered by a collective bargaining agreement, and the Company has experienced no work stoppages. The Company considers its employee relations to be good.

Executive Officers of the Registrant

The executive officers of the Company, their ages as of February 28, 1999 and positions are as follows:

Mr. Gordon M. Binder, age 63, has served as a director of the Company since October 1988. He joined the Company in 1982 as Vice President-Finance and was named Senior Vice President-Finance in February 1986. Mr. Binder was elected Chief Executive Officer in October 1988 and Chairman of the Board in July 1990.

Mr. Kevin W. Sharer, age 50, has served as a director of the Company since November 1992. He also has served as President and Chief Operating Officer since October 1992. Prior to joining the Company, Mr. Sharer served as President of the Business Markets Division of MCI Communications Corporation, a telecommunications company, from April 1989 to October 1992, and served in numerous executive capacities at General Electric Company from February 1984 to March 1989. Mr. Sharer also serves as a director of Unocal Corporation.

Dr. N. Kirby Alton, age 48, became Senior Vice President, Development, in August 1992, having served as Vice President, Therapeutic Product Development, Responsible Head, from October 1988 to August 1992. Dr. Alton previously had served as Director, Therapeutic Product Development, from February 1986 to October 1988.

Mr. Stan M. Benson, age 47, has served as Senior Vice President, Sales and Marketing, since joining the Company in June 1995. Prior to joining the Company, Mr. Benson held a number of executive management positions at Pfizer Inc., a pharmaceutical company, from 1987 to 1995.

Mr. Marc M.P. de Garidel, age 40, became Vice President, Controller and Chief Accounting Officer in December 1998, having served as Senior Director, Financial Planning & Analysis, since July 1998. Previously, Mr. de Garidel was the Vice President, Finance and Administration for Amgen Europe, from April 1995 to July 1998. Prior to joining the Company, he was Finance Director for Eli Lilly and Company, a pharmaceutical company, in Germany from 1992 to April 1995.

Ms. Kathryn E. Falberg, age 38, became Senior Vice President, Finance and Chief Financial Officer in December 1998, having served as Vice President, Finance, Chief Financial Officer and Chief Accounting Officer since May 1998 and as Vice President, Corporate Controller and Chief Accounting Officer from June 1997 to May 1998. Previously, Ms. Falberg had served as Vice President and Treasurer from December 1996 to June 1997, and as Treasurer since joining the Company in January 1995. Prior to joining the Company, Ms. Falberg had been Vice President, Chief Financial Officer and Treasurer for Applied Magnetics Corporation, a computer components manufacturer, since May 1993 and had been its Treasurer from 1991 to May 1993.

Dr. Dennis M. Fenton, age 47, became Senior Vice President, Operations, in January 1995, having served as Senior Vice President, Sales and Marketing, since August 1992, and having served as Vice President, Process Development, Facilities and Manufacturing Services, from July 1991 to August 1992. Dr. Fenton previously had served as Vice President, Pilot Plant Operations and Clinical Manufacturing, from October 1988 to July 1991, and as Director, Pilot Plant Operations, from 1985 to October 1988.

Mr. Edward F. Garnett, age 51, became Vice President, Human Resources, in October 1994, having served as Director, Sales and Marketing Operations, since March 1994. Previously, Mr. Garnett had served as Director, Logistics, from April 1990 to March 1994.

Mr. Daryl D. Hill, age 53, became Senior Vice President, Quality and Compliance, in January 1997, having served as Senior Vice President, Asia Pacific, from January 1994 to January 1997. Mr. Hill previously had served as Vice President, Quality Assurance, from October 1988 to January 1994, and as Director of Quality Assurance from January 1984 to October 1988.

Dr. George Morstyn, age 48, became Vice President, Product Development and Chief Medical Officer in June 1998, having served as Vice President, Clinical Development and Chief Medical Officer from September 1993 to June 1998. Dr. Morstyn previously served as Vice President, Clinical and Medical Affairs from July 1991 to September 1993.

Mr. Steven M. Odre, age 49, became Vice President, Intellectual Property, and Associate General Counsel in October 1988, having served as Associate General Counsel since March 1988. From May 1986 to March 1988, he served as Director of Intellectual Property.

Dr. Lawrence M. Souza, age 45, became Senior Vice President, Research, in May 1997, having served as Vice President, Exploratory Research, since October 1988. Previously, Dr. Souza had served as Director, Exploratory Research, from February 1986 to October 1988.

Mr. George A. Vandeman, age 59, became Senior Vice President, Corporate Development, General Counsel and Secretary in July 1998, having served as Senior Vice President, General Counsel and Secretary since joining the Company in June 1995. Prior to joining the Company, Mr. Vandeman was a partner of Latham & Watkins, an international law firm, from June 1966 to June 1995.

Geographic Area Financial Information

For financial information concerning the geographic areas in which the Company operates, see Note 10 to the Consolidated Financial Statements.

Factors That May Affect Amgen

Amgen operates in a rapidly changing environment that involves a number of risks, some of which are beyond our control. The following discussion highlights some of these risks and others are discussed elsewhere herein.

Product development

We intend to continue an aggressive product development program. Successful product development in the biotechnology industry is highly uncertain, and very few research and development projects produce a commercial product. Product candidates that appear promising in the early phases of development, such as in early human clinical trials, may fail to reach the market for a number of reasons, such as:

-- the product candidate was not effective in treating a specified condition or illness

-- the product candidate had harmful side effects on humans

-- the necessary regulatory bodies (such as the FDA) did not approve our product candidate for an indicated use

-- the product candidate was not economical for us to manufacture it

-- other companies or people may have proprietary rights to our product candidate (e.g. patent rights) and will not let us sell it on reasonable terms, or at all

-- the product candidate is not cost effective in light of existing therapeutics

-- the product candidate did not demonstrate acceptable clinical trial results even though it demonstrated positive preclinical trial results

For example, in 1997, we announced the failure of BDNF (for the treatment of ALS by subcutaneous injection administration route), because the product candidate, as administered, did not produce acceptable clinical results in a specific indication after a phase 3 trial, even though BDNF had progressed through preclinical and earlier clinical trials. Of course, there may be other factors that prevent us from marketing a product. We cannot guarantee we will be able to produce commercially successful products. Further, clinical trial results are frequently susceptible to varying interpretations by scientists, medical personnel, regulatory personnel, statisticians and others which may delay, limit or prevent further clinical development or regulatory approvals of a product candidate. Also, the length of time that it takes for us to complete clinical trials and obtain regulatory approval for product marketing has in the past varied by product and by the indicated use of a product. We expect that this will likely be the case with future product candidates and we cannot predict the length of time to complete necessary clinical trials and obtain regulatory approval. See "--Regulatory matters."

Regulatory matters

Our research, preclinical testing, clinical trials, facilities, manufacturing, pricing and sales and marketing are subject to extensive regulation by numerous state and federal governmental authorities in the U.S., such as the FDA and the Health Care Financing Administration ("HCFA"), as well as by foreign countries and the European Union (the "EU"). Currently, we are required in the U.S. and in foreign countries to obtain approval from those countries' regulatory authorities before we can market and sell our products in those countries. The success of our current and future products will depend in part upon obtaining and maintaining regulatory approval to market products in approved indications in the U.S. and foreign markets. In our experience, the

regulatory approval process is a lengthy and complex process, both in the U.S. and in foreign countries, including countries in the EU. Even if we obtain regulatory approval, both our manufacturing processes and our marketed products are subject to continued review. Later discovery of previously unknown problems with our products or manufacturing processes may result in restrictions on such product or manufacturing processes, including withdrawal of the products from the market. Our failure to obtain necessary approvals, or the restriction, suspension or revocation of any approvals, or our failure to comply with regulatory requirements could prevent us from manufacturing or selling our products which could have a material adverse effect on us and our results of operations.

Reimbursement; Third party payors

In both domestic and foreign markets, sales of our products are dependent, in part, on the availability of reimbursement from third party payors such as state and federal governments (for example, under Medicare and Medicaid programs in the U.S.) and private insurance plans. In certain foreign markets, the pricing and profitability of our products generally are subject to government controls. In the U.S., there have been, and we expect there will continue to be, a number of state and federal proposals that limit the amount that state or federal governments will pay to reimburse the cost of drugs. In addition, we believe the increasing emphasis on managed care in the U.S. has and will continue to put pressure on the price and usage of our products, which may impact product sales. Further, when a new therapeutic is approved, the reimbursement status and rate of such a product is uncertain. In addition, current reimbursement policies for existing products may change at any time. Changes in reimbursement or our failure to obtain reimbursement for our products may reduce the demand for, or the price of, our products, which could result in lower product sales or revenues which could have a material adverse effect on us and our results of operations. For example, in the U.S. the use of EPOGEN(R) in connection with treatment for end stage renal disease is funded primarily by the U.S. federal government. Therefore, as in the past, EPOGEN(R) sales could be affected by future changes in reimbursement rates or the basis for reimbursement by the federal government. For example, in early 1997, HCFA instituted a reimbursement change for EPOGEN(R) which adversely affected the Company's EPOGEN(R) sales. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations--Results of Operations--Product sales--EPOGEN(R) (Epoetin alfa)."

Guidelines

Government agencies promulgate regulations and guidelines directly applicable to us and to our products. However, professional societies, practice management groups, private health/science foundations and organizations involved in various diseases may also publish, from time to time, guidelines or recommendations to the health care and patient communities. These organizations may make recommendations that affect a patient's usage of certain therapies, drugs or procedures, including our products. Recommendations of government agencies or these other groups/organizations may relate to such matters as usage, dosage, route of administration and use of concomitant therapies. Recommendations or guidelines that are followed by patients and health care providers could result in, among other things, decreased use of our products which could have a material adverse effect on our results of operations. In addition, the perception by the investment community or stockholders that such recommendations or guidelines will be followed could adversely affect prevailing market prices for our common stock.

Intellectual property and legal matters

The patent positions of pharmaceutical and biotechnology companies can be highly uncertain and often involve complex legal, scientific and factual questions. To date, there has emerged no consistent policy regarding breadth of claims allowed in such companies' patents. Accordingly, the patents and patent applications relating to our products and technologies may be challenged, invalidated or circumvented by third parties and might not protect us against competitors with similar products or technology. Patent disputes are frequent and can preclude commercialization of products. We are currently, and in the future may be, involved

in patent litigation. The results of such litigation could subject us to competition and/or significant liabilities, could require us to enter into third party licenses or could cause us to cease using the technology or product in dispute. In addition, we cannot guarantee that such licenses will be available on terms acceptable to us.

The Company is currently involved in arbitration proceedings with Ortho Pharmaceutical Corporation (which has assigned its rights under the Product License Agreement to Ortho Biotech, Inc.), a subsidiary of Johnson & Johnson ("Johnson & Johnson"), relating to a license granted by the Company to Johnson & Johnson for sales of Epoetin alfa in the U.S. for all human uses except dialysis. See Note 4 to the Consolidated Financial Statements, "Contingencies--Johnson & Johnson arbitrations".

Competition

We operate in a highly competitive environment. Our principal competitors are pharmaceutical and biotechnology companies. Some of our competitors, mainly large pharmaceutical corporations, have greater clinical, research, regulatory and marketing resources than we do. In addition, some of our competitors may have technical or competitive advantages over us for the development of technologies and processes and the acquisition of technology from academic institutions, government agencies and other private and public research organizations. We cannot guarantee that we will be able to produce or acquire rights to products that have commercial potential. Even if we achieve successful product commercialization, we cannot guarantee that one or more of our competitors will not achieve product commercialization earlier than we do, obtain patent protection that dominates or adversely affects our activities, or have significantly greater marketing capabilities.

Fluctuations in operating results

Our operating results may fluctuate from period to period for a number of reasons. In budgeting our operating expenses, some of which are fixed in the short term, we assume that revenues will continue to grow. Accordingly, even a relatively small revenue shortfall may cause a period's results to be below our expectations. A revenue shortfall could arise from any number of factors, such as:

- -- lower than expected demand for our products
- -- changes in the government's or private payor's reimbursement policies for our products
- -- changes in wholesaler buying patterns
- -- increased competition from new or existing products
- -- fluctuations in foreign currency exchange rates
- -- changes in our product pricing strategies

Of course, there may be other factors that affect the Company's revenues in any given period.

Rapid growth

We have an aggressive growth plan that includes substantial and increasing investments in research and development and facilities. Our plan has a number of risks, such as:

- -- the need to generate higher revenues to cover a higher level of operating expenses
- -- the need to manage complexities associated with a larger and faster growing organization
- -- the need to accurately anticipate demand for the products we manufacture and maintain adequate manufacturing capacity

Of course, there may be other risks and we cannot guarantee that we will be able to successfully manage these or other risks.

Stock price volatility

Our stock price, like that of other biotechnology companies, is extremely volatile. Our stock price may be affected by, among other things, clinical trial results and other product-development announcements by us or our competitors, regulatory matters, announcements in the scientific and research community, intellectual property and legal matters, changes in reimbursement policies or medical practices or broader industry and market trends unrelated to our performance. In addition, if our revenues or earnings in any period fail to meet the investment community's expectations, there could be an immediate adverse impact on our stock price.

Item 2. PROPERTIES

Amgen's principal executive offices and a majority of its administrative, manufacturing and research and development facilities are located in 37 buildings in Thousand Oaks, California. Thirty-three of the buildings are owned and four are leased. Adjacent to these buildings are five facilities that are under construction and additional property for future expansion. The Thousand Oaks, California facilities include manufacturing plants licensed by various regulatory bodies that produce commercial quantities of Epoetin alfa, NEUPOGEN(R) (Filgrastim) and INFERGEN(R) (Interferon alfacon-1).

Elsewhere in North America, Amgen owns ten buildings in Boulder, Colorado housing research facilities and a pilot plant. In 1998, Amgen entered into an agreement to sell eight of these buildings, six of which will be leased backed by the Company for a period of up to three years. The Company also owns a distribution center in Louisville, Kentucky and leases a research facility and administrative offices in Toronto, Canada, an administrative office in Washington, D.C. and five regional sales offices in the U.S. Amgen is building a new manufacturing plant, utility plant and an administrative facility in Longmont, Colorado. In 1998, the Company acquired approximately 159 acres of undeveloped land adjacent to this site to accommodate future expansion. The Company also owns land in Cambridge, Massachusetts which can accommodate a research facility.

Outside North America, the Company has a formulation, fill-and-finish facility in Juncos, Puerto Rico and a European packaging and distribution center in Breda, The Netherlands which have been licensed by various regulatory bodies. The Company leases facilities in thirteen European countries, Australia, Japan, Taiwan, Hong Kong and the People's Republic of China for administration, marketing and research and development.

Amgen believes that its current facilities plus anticipated additions are sufficient to meet its needs for the next several years.

Item 3. LEGAL PROCEEDINGS

Certain of the Company's legal proceedings are discussed below and in the Note 4 to the Consolidated Financial Statements, "Contingencies". While it is impossible to predict accurately or to determine the eventual outcome of these matters, the Company believes that the outcome of these proceedings will not have a material adverse effect on the annual financial statements of the Company.

Elanex Pharmaceuticals litigation

In October 1993, the Company filed a complaint for patent infringement against defendants Elanex Pharmaceuticals, Inc. ("Elanex"), Laboratorios Elanex De Costa Rica, S.A., Bio Sidus S.A., Merckle GmbH, Biosintetica S.A. and other unknown defendants. The complaint, filed in the United States District Court for the Western District of Washington in Seattle, sought injunctive relief and damages for Elanex's infringement of the Company's patent for DNA sequences and host cells useful in producing recombinant erythropoietin. The complaint also alleged that the foreign defendants entered into agreements with Elanex relating to the production or sale of recombinant erythropoietin and thereby induced Elanex's infringement.

In December 1993, Elanex responded to the complaint denying the material allegations thereof, and filed a counterclaim which sought a declaratory judgment that the Company's patent was invalid and that Elanex's

recombinant erythropoietin technology did not infringe any valid claims of the Company's patent. The counterclaim also sought an award of reasonable attorneys' fees and other costs of defense but does not seek damages against the Company. In February 1996, Merckle GmbH was dismissed from the case. In November 1998, the case was resolved by settlement agreement between the parties in which Elanex agreed not to contest the validity of the patent-in-suit and agreed not to use the infringing host cells.

Biogen litigation

On March 10, 1995, Biogen, Inc. ("Biogen") filed suit in the United States District Court for the District of Massachusetts alleging infringement by the Company of certain claims of U.S. Patent 4,874,702 (the "'702 Patent"), relating to vectors for expressing cloned genes. Biogen alleges that Amgen has infringed its patent by manufacturing and selling NEUPOGEN(R). On March 28, 1995, Biogen filed an amended complaint further alleging that the Company is also infringing the claims of two additional patents allegedly assigned to Biogen, U.S. Patent 5,401,642 (the "'642 Patent") and U.S. Patent No. 5,401,658 (the "'658 Patent"), relating to vectors, methods for making vectors and expressing cloned genes. The amended complaint seeks injunctive relief, unspecified compensatory damages and treble damages. On April 24, 1995, the Company answered Biogen's amended complaint, denying its material allegations and pleading counterclaims for declaratory judgment of non-infringement, patent invalidity and unenforceability. On January 19, 1996, the Court decided, upon Biogen's motion to dismiss certain of Amgen's counterclaims, that it will exert jurisdiction over claims 9 and 17 of the '702 Patent, and dismissed all claims and counterclaims relating to any other claims of the '702 Patent. On October 22, 1997, Amgen moved for summary judgment of invalidity of the certain claims of the '702 and '658 Patents based on prior public uses of the claimed subject matter. Amgen concurrently moved for a partial interpretation of the claims at issue. In addition, on October 24, 1997, Amgen filed a motion for summary judgment of invalidity of particular claims of the patents-in-suit based on abandonment of the invention. Amgen also concurrently filed a motion to dismiss the lawsuit in its entirety based on Biogen's lack of standing to bring the lawsuit in view of Biogen's lack of ownership of the patents-in-suit. Both parties submitted claim construction briefs with the court. On January 15, 1998, Amgen filed a second motion to dismiss for lack of subject matter jurisdiction and standing in view of Biogen's lack of necessary ownership rights in the patents-in-suit. In an August 6, 1998 ruling on a previously-held claim construction hearing, the court issued an order that essentially limits the Biogen patent claims to a single particular type of vector. The judge ruled that, to be covered by claim 1 of the '702 patent (the claim that forms the crux of the asserted claims), a plasmid vector must contain the entire DNA sequence as represented in Figure 6 of the '702 patent, as well as at least one endonuclease recognition site inserted at the converted HaeIII site at 73.1% of bacteriophage lambda or at another site downstream of HaeIII, said endonuclease recognition site being within 300 base pairs of the HincII site at -33, and prior to any sequences of lambda DNA downstream of the HaeIII site. On November 4, 1998, Amgen moved for summary judgment of non-infringement. Biogen filed its opposition papers (on December 7, 1998), Amgen filed its reply papers (on December 14, 1998) and a hearing was held on December 21, 1998. On January 21, 1999, the court ordered additional briefing on issues pertaining to non-infringement under the doctrine of equivalents. The briefing is currently ongoing. Discovery in the case is substantially completed. A trial date has not been set.

In a separate matter, on July 30, 1997, Biogen filed a complaint in the United States District Court for the District of Massachusetts in Boston alleging that Amgen infringes claims 9 and 17 of the '702 Patent, and the '642 Patent and '658 Patent by making and using the claimed subject matter in the United States in the manufacture of INFERGEN(R), the Company's consensus interferon product. On September 17, 1997, Amgen responded to the Complaint by filing a motion to dismiss the case in its entirety due to Biogen's lack of standing to bring the lawsuit in view of Biogen's lack of ownership of the patents-in-suit. Amgen also filed a motion for summary judgment of patent invalidity of particular claims of the patents-in-suit due to abandonment of the invention. The Court has ordered the Company to file an answer to Biogen's complaint but has stayed all discovery in this matter until certain discovery in the NEUPOGEN(R) matter described above is completed. The Company has filed a motion to dismiss the complaint on the grounds that the Court lacks jurisdiction over the matter as Biogen lacks the necessary ownership rights to afford it standing. A trial date has not been set.

INFERGEN(R) litigation

On December 3, 1996, Schering-Plough Corporation filed suit in the U.S. District Court for the District of Delaware (the "Delaware Court") against the Company alleging infringement of U.S. Patent No. 4,530,901 (the "'901 Patent") by the manufacture and use of INFERGEN(R). The complaint seeks unspecified damages and injunctive relief. Biogen has been added as a plaintiff in the Delaware action. On July 30, 1998, the Delaware Court entered an order construing the meaning of the claims of the '901 Patent. The Delaware Court limited the scope of the claims to include DNAs that encode only "an immature, fused, and/or incomplete form" of Interferon-alpha-1. On October 9, 1998, Schering's motion for re-argument of the Delaware Court's claim construction was denied. On October 30, 1998, Schering and Biogen filed a motion with the Delaware Court seeking entry of a judgment in favor of Amgen that INFERGEN(R) does not infringe the '901 Patent. Schering and Biogen indicated their intent to appeal the Delaware Court's claim construction to the Court of Appeals for the Federal Circuit. Schering's and Biogen's motion also seeks dismissal of Amgen's counterclaims as moot. On February 3, 1999, the Delaware Court granted Schering's motion and entered judgment of noninfringement in favor of Amgen. Schering and Biogen have filed a notice of appeal.

Genentech litigation

On October 16, 1996, Genentech, Inc. filed suit in the United States District Court for the Northern District of California seeking an unspecified amount of compensatory damages, treble damages and injunctive relief on its U.S. Patents 4,704,362, 5,221,619 and 4,342,832 (the "'362, '619 and '832 Patents"), relating to vectors for expressing cloned genes and the methods for such expression. Genentech, Inc. alleges that Amgen has infringed its patents by manufacturing and selling NEUPOGEN(R). On December 2, 1996, Amgen was served with this lawsuit. On January 21, 1997, the Company answered the complaint and asserted counterclaims relating to invalidity and non-infringement of the patents-in-suit. On February 10, 1997, Genentech, Inc. served Amgen with a reply to the counterclaim and an additional counterclaim asserting U.S. Patent 5,583,013 (the "'013 Patent"), issued December 10, 1996, seeking relief similar to that sought for the '362, '619 and '832 Patents. On March 31, 1997, Amgen answered this pleading and asserted counterclaims relating to invalidity and non-infringement of the '013 Patent. At a hearing held on May 29, 1998, the parties stipulated to: (i) the dismissal with prejudice of Genentech's first claim for patent infringement against Amgen with respect to the '832 patent, as alleged in Genentech's complaint filed October 16, 1996 and (ii) dismissal with prejudice of Amgen's first, second, third and fourth claims for relief with respect to the '832 patents as alleged in Amgen's answer to complaint and counterclaims filed on January 21, 1997. A claim construction hearing was held November 3 and 5, 1998. On March 3, 1999, the Court filed a tentative ruling on claim construction of specific terms recited in the '362, '619 and '013 patents. The Court further instructed the parties that they may appear on March 19, 1999 for a hearing, without written briefing, pertaining to the tentative ruling. Discovery is currently ongoing. No trial date has been set.

Transkaryotic Therapies and Hoechst litigation

On April 15, 1997, Amgen filed suit in the United States District Court in Boston, Massachusetts against Transkaryotic Therapies, Inc. ("TKT") and Hoechst Marion Roussel, Inc. alleging infringement of several U.S. patents owned by Amgen that claim an erythropoietin product and processes for making erythropoietin. The suit seeks an injunction preventing the defendants from making, importing, using or selling erythropoietin in the U.S. On July 9, 1997, the court denied TKT's motion to dismiss the lawsuit on the pleadings. On April 15, 1998, the court issued an order granting the defendants' motion for summary judgment of non-infringement on the grounds that defendants' activities to date were protected by the clinical trial exemption. The court also ruled that Amgen's motion for summary judgment for infringement would be administratively closed. Although the matter is administratively closed, it may be re-opened upon motion of either party for good cause shown.

FoxMeyer Health Corporation

On January 10, 1997, FoxMeyer Health Corporation, now known as Avatex Corporation ("Avatex"), filed suit (the "FoxMeyer Lawsuit") in the District Court of Dallas County, Dallas, Texas, alleging that defendant McKesson Corporation ("McKesson") defrauded Avatex, misused confidential information received from Avatex about subsidiaries of Avatex (FoxMeyer Corporation and FoxMeyer Drug Corporation, collectively the "FoxMeyer Subsidiaries"), and attempted to monopolize the market for pharmaceutical and health care product distribution by attempting to injure or destroy FoxMeyer Subsidiaries. The Company is named as one of twelve "Manufacturer Defendants" alleged in Counts 1, 2 and 3 ("Counts 1-3") to have conspired with McKesson in doing, among other things, the above and (i) inducing Avatex to refrain from seeking other suitable purchasers for the FoxMeyer Subsidiaries and (ii) causing Avatex to believe that McKesson was serious about purchasing Avatex's assets at fair value, when in fact, McKesson was not. The Manufacturer Defendants and McKesson (hereinafter referred to, collectively, as the "Defendants") are also alleged to have intentionally and tortiously interfered with a number of business expectancies and opportunities and to have disparaged Avatex. The complaint seeks from the Defendants compensatory damages of at least $400 million and punitive damages in an unspecified amount, as well as Avatex's costs and attorney's fees. The Company has filed an answer denying Avatex's allegations. The FoxMeyer Lawsuit was removed to the Federal Bankruptcy Court in Dallas, Texas (the "Texas Bankruptcy Court"). The Chapter 7 Trustee of the FoxMeyer Subsidiaries joined in all allegations but has taken no action to affirmatively prosecute those claims.

The Defendants have intervened in an action brought by the Chapter 7 Trustee of the FoxMeyer Subsidiaries in the Federal Bankruptcy Court in Delaware (the "Delaware Bankruptcy Court") that seeks to enjoin the FoxMeyer Lawsuit. The Defendants moved for partial summary judgment in that proceeding, asserting that Avatex is not the owner of the alleged causes of action; the Delaware Bankruptcy Court denied this motion as premature. The Defendants also moved for summary judgment in the Delaware Bankruptcy Court to preclude Avatex and the Chapter 7 Trustee from litigating the FoxMeyer Lawsuit. On November 12, 1998, the Delaware Bankruptcy Court granted the motion in part (the "Delaware Preclusion Opinion") which judicially estopped Avatex from pursuing three of the seven counts in the FoxMeyer Lawsuit. The Delaware Bankruptcy Court declined to dismiss the remaining Avatex counts generally alleging interference with Avatex business opportunities and business disparagement.

On November 19, 1998, the Texas Bankruptcy Court entered an order dismissing with prejudice Counts 1-3 of the FoxMeyer Lawsuit and remanding the FoxMeyer Lawsuit to Texas state court. The Defendants appealed the remand order to the Dallas United States District Court along with the Texas Bankruptcy Court's earlier venue order refusing to transfer the FoxMeyer Lawsuit to Delaware. After various notices of appeal had been filed, Avatex moved for an order amending the order dismissing Counts 1-3 with prejudice and requested that any dismissal be without prejudice. The Defendants objected and cross-moved for a stay of remand pending appeal of the remand order.

In the Delaware Bankruptcy Court, Avatex moved to revise the Delaware Preclusion Opinion due to the intervening remand decision. The Defendants filed objections to all of the relief requested and cross-moved for an injunction of the FoxMeyer Lawsuit until final determination of preclusion in Delaware on the remaining counts. After engaging in limited discovery, the Defendants filed another summary judgment motion in the Delaware Bankruptcy Court on January 29, 1999, arguing that Avatex and the Trustee are precluded from asserting all counts of the FoxMeyer Lawsuit.

On January 7, 1999, the Texas Bankruptcy Court entered an order: a) denying the Avatex motion which had requested dismissal of Counts 1-3 without prejudice; b) denying stay pending the remand appeal sought by the Defendants and c) granting a limited interim stay until February 8, 1999 to permit the Defendants to make an orderly request for stay from the District Court Judge hearing the appeals. The District Court entered a stipulated order extending the stay of remand and discovery until April 10, 1999. Further motions to stay pending decision of the amended summary judgment motion in Delaware are pending in both the Delaware Bankruptcy Court and the Dallas United States District Court. Avatex has cross appealed the dismissal with

prejudice of Counts 1-3 by the Texas Bankruptcy Court. Briefing is not yet completed on any of the pending motions.

Securities litigation

On August 7, 1998, two substantially related class action complaints were filed against the Company and certain of its current and former officers in the United States District Court for the Central District of California and in the California Superior Court for the County of Ventura. The actions were filed by the same law firm on behalf of different named plaintiffs. The respective plaintiff groups seek to represent the same class of investors who purchased Amgen common stock between January 23, 1997 and August 11, 1997 (the alleged "Class Period"). Both complaints allege that the market price of the Company's common stock was artificially inflated during the Class Period as a result of alleged misrepresentations made to the investing public. The complaints allege that Amgen and several of its senior executives issued false statements regarding: (i) the demand for and sales growth of two of Amgen's products, EPOGEN(R) and NEUPOGEN(R); (ii) an arbitration proceeding between Amgen and Johnson & Johnson regarding entitlement to millions of dollars in "spillover" sales of EPOGEN(R) and (iii) Amgen's 1996 fourth quarter and 1997 first and second quarter results. The plaintiffs seek to recover damages on behalf of all purchasers of Amgen common stock during the Class Period. The Company has obtained a stay of the California state court action pending resolution of the federal action and, on February 4, 1999, the Company filed a motion to dismiss the federal action which is scheduled for hearing on May 3, 1999.

Johnson & Johnson arbitrations

The Company is engaged in arbitration proceedings with one of its licensees. See Note 4 to the Consolidated Financial Statements, "Contingencies--Johnson & Johnson arbitrations".

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

No matters were submitted to a vote of the Company's security holders during the last quarter of its fiscal year ended December 31, 1998.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

The Company's common stock trades on The Nasdaq Stock Market under the symbol AMGN. As of March 8, 1999, there were approximately 13,000 holders of record of the Company's common stock. No cash dividends have been paid on the common stock to date, and the Company currently intends to retain any earnings for development of the Company's business and for repurchases of its common stock. The Company's Board of Directors approved a two-for-one split of the common stock effected in the form of a 100 percent stock dividend on outstanding stock distributed on February 26, 1999, to stockholders of record on February 12, 1999.

The following table sets forth, for the fiscal periods indicated, the range of high and low closing sales prices (adjusted for the two-for-one split) of the common stock as quoted on The Nasdaq Stock Market for the years 1998 and 1997:

	High	Low
1998		
4th Quarter	$52 7/16	$34 17/32
3rd Quarter	39 13/16	30 7/16
2nd Quarter	33 3/8	27 29/32
1st Quarter	30 13/16	23 9/16
1997		
4th Quarter	$27 1/16	$22 31/32
3rd Quarter	30 7/8	23 15/32
2nd Quarter	34 3/16	27 15/16
1st Quarter	31 1/2	26 1/2

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

	Years ended December 31,				
	1998	1997	1996	1995	1994
Consolidated Statement of Operations Data:					
Revenues:					
Product sales	$2,514.4	$2,219.8	$2,088.2	$1,818.6	$1,549.6
Other revenues	203.8	181.2	151.6	121.3	98.3
Total revenues	2,718.2	2,401.0	2,239.8	1,939.9	1,647.9
Research and development expenses	663.3	630.8	528.3	451.7	323.6
Write-off of in-process technology purchased(1)	--	--	--	--	116.4
Selling, general and administrative expenses	515.4	483.8	470.6	418.4	359.8
Legal (award) assessment(2)	(23.0)	157.0	--	--	--
Net income(1)(2)	863.2	644.3	679.8	537.7	319.7
Diluted earnings per share(1)(2)(3)	1.63	1.17	1.21	.96	.57
Cash dividends declared per share	--	--	--	--	--

	At December 31,				
	1998	1997	1996	1995	1994
Consolidated Balance Sheet Data:					
Total assets	$3,672.2	$3,110.2	$2,765.6	$2,432.8	$1,994.1
Long-term debt	223.0	229.0	59.0	177.2	183.4
Stockholders' equity	2,562.2	2,139.3	1,906.3	1,671.8	1,274.3

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(1) Includes the write-off of in-process technology purchased of $116.4 million, or $.21 per share, associated with the acquisition of Synergen, Inc. in 1994.

(2) Includes a spillover liability reduction of $23 million, or $.03 per share, related to the arbitration proceedings with Johnson & Johnson in 1998 and a legal assessment of $157 million, or $.18 per share, related to the arbitration proceedings with Johnson & Johnson in 1997 (see Note 4 to the Consolidated Financial Statements).

(3) Retroactively adjusted to reflect a two-for-one split of the common stock effected in the form of a 100 percent stock dividend distributed on February 26, 1999, to stockholders of record on February 12, 1999.

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

Liquidity and Capital Resources

The Company had cash, cash equivalents and marketable securities of $1,276 million at December 31, 1998, compared with $1,026.5 million at December 31, 1997. Cash provided by operating activities has been and is expected to continue to be the Company's primary source of funds. In 1998, operations provided $1,041.5 million of cash compared with $902.9 million in 1997.

Capital expenditures totaled $407.8 million in 1998 compared with $387.8 million in 1997. The Company anticipates spending approximately $300 million to $400 million in 1999 on capital projects and equipment to expand the Company's global operations. Thereafter, over the next few years, the Company anticipates that capital expenditures will average in excess of $300 million per year.

The Company receives cash from the exercise of employee stock options. In 1998, stock options and their related tax benefits provided $453.7 million of cash compared with $189 million in 1997. Proceeds from the exercise of stock options and their related tax benefits have varied and are expected to continue to vary from period to period based upon, among other factors, fluctuations in the market value of the Company's stock relative to the exercise price of such options.

The Company has a stock repurchase program primarily to offset the dilutive effect of its employee stock option and stock purchase plans. In both 1997 and 1998, shares repurchased exceeded the number of shares covered by options granted in each of those years. In 1998, the Company repurchased 28.7 million shares of its common stock at a total cost of $912.1 million, and in 1997, the Company purchased 27.3 million shares of common stock at a cost of $737.9 million. In October 1998, the Board of Directors authorized the Company to repurchase up to an additional $1 billion of common stock through December 31, 1999. At December 31, 1998, $800 million of this authorization remained. At stock prices similar to the closing price on December 31, 1998, the Company expects to repurchase fewer shares in 1999 than in 1998.

To provide for financial flexibility and increased liquidity, the Company has established several sources of debt financing. As of December 31, 1998, the Company had $229 million of unsecured debt securities outstanding. These unsecured debt securities consisted of: 1) $100 million of debt securities that bear interest at a fixed rate of 6.5% and mature in 2007 that were issued in December 1997 under a $500 million debt shelf registration (the "Shelf"), 2) $100 million of debt securities that bear interest at a fixed rate of 8.1% and mature in 2097 and 3) $29 million of debt securities that bear interest at fixed rates averaging 6.1% and have remaining maturities of less than five years, of which $6 million mature within one year. Under the Shelf, all of the remaining $400 million of debt securities available for issuance may be offered under the Company's medium-term note program.

The Company's sources of debt financing also include a commercial paper program which provides for short-term borrowings up to an aggregate face amount of $200 million. As of December 31, 1998, commercial paper with a face amount of $100 million was outstanding. These borrowings had maturities of less than two months and had effective interest rates averaging 5.5%. In addition, the Company has an unsecured $150 million credit facility that expires on May 28, 2003. This credit facility supports the Company's commercial paper program. As of December 31, 1998, no amounts were outstanding under this line of credit.

The primary objectives for the Company's investment portfolio are liquidity and safety of principal. Investments are made to achieve the highest rate of return to the Company, consistent with these two objectives. The Company's investment policy limits investments to certain types of instruments issued by institutions with investment grade credit ratings and places restrictions on maturities and concentration by type and issuer. The Company invests its excess cash in securities with varying maturities to meet projected cash needs.

The Company believes that existing funds, cash generated from operations and existing sources of debt financing are adequate to satisfy its working capital and capital expenditure requirements for the foreseeable future, as well as to support its stock repurchase program. However, the Company may raise additional capital from time to time.

Results of Operations

Product sales

Product sales were $2,514.4 million in 1998, an increase of $294.6 million or 13% over the prior year. In 1997, product sales were $2,219.8 million, an increase of $131.6 million or 6% over the prior year. Quarterly product sales volume is influenced by a number of factors including underlying demand and wholesaler inventory management practices.

EPOGEN(R) (Epoetin alfa)

EPOGEN(R) sales were $1,382 million in 1998, an increase of $221.3 million or 19% over the prior year. This increase was primarily due to the administration of higher doses and the continuing growth in the U.S. dialysis patient population. The administration of higher doses of EPOGEN(R) was principally due to changes in reimbursement announced in March and June 1998 by the Health Care Financing Administration ("HCFA"), discussed below, as well as many dialysis providers using better anemia management practices, including using hemoglobin instead of hematocrit to measure red blood cell counts.

In September 1997, HCFA implemented changes (the "HCFA Policy Changes") to its reimbursement policy. Prior to the HCFA Policy Changes, fiscal intermediaries under contract with HCFA were authorized to pay reimbursement claims for patients whose hematocrits exceeded 36 percent, the top of the suggested target hematocrit range in the Company's labeling, if deemed medically justified. Under the HCFA Policy Changes, medical justification was not accepted for payment of claims of hematocrits that exceeded 36 percent and, if the current month's hematocrit was greater than 36 percent and the patient's hematocrit exceeded 36.5 percent on an historical 90-day "rolling average" basis, reimbursement for the current month would be denied in full. Beginning in the second quarter of 1997, the Company experienced a decline in the growth rate of EPOGEN(R) sales as dialysis providers attempted to lower hematocrits by lowering or withholding EPOGEN(R) doses in order to avoid or minimize claim denials under the HCFA Policy Changes. However, in March 1998, HCFA announced the easing of restrictions on reimbursement that had been instituted under the HCFA Policy Changes. In June 1998, HCFA announced further revisions.

In March 1998, HCFA issued two revisions (the "March HCFA Revisions") to the HCFA Policy Changes in a program memorandum. The first revision provided that, for a month in which the three month "rolling average" hematocrit exceeds 36.5 percent, HCFA would pay the lower of 100 percent of the actual dosage billed for that month, or 80 percent of the prior month's allowable EPOGEN(R) dosage. The second revision re-established authorization to make payment for EPOGEN(R) when a patient's hematocrit exceeded 36 percent when accompanied by documentation establishing medical necessity. In June 1998, HCFA issued another program memorandum establishing additional revisions (the "June HCFA Revisions") to the reimbursement policy. The policy now states that pre-payment review of claims has been eliminated and fiscal intermediaries should conduct post-payment reviews of those dialysis providers with an atypical number of patients with hematocrit levels above a 90-day "rolling average" of 37.5 percent. Additionally, HCFA stated that it is encouraging dialysis providers to maintain a hematocrit level within the range of 33 to 36 percent as recommended by the Dialysis Outcomes Quality Initiative. HCFA also stated that it plans to develop a national policy for medical justification for physicians who target their patients' hematocrits greater than 36 percent. In the interim, individual patient treatment will continue to be subject to the physician's discretion and documentation must satisfy the judgment of the fiscal intermediary. The June HCFA Revisions supersede the HCFA Policy Changes and the March HCFA Revisions.

In 1997, EPOGEN(R) sales were $1,160.7 million, an increase of $88.8 million or 8% over the prior year. This increase was primarily due to growth in the U.S. dialysis patient population. However, as discussed above, EPOGEN(R) sales in 1997 were adversely affected by the HCFA Policy Changes.

NEUPOGEN(R) (Filgrastim)

Worldwide NEUPOGEN(R) sales were $1,116.6 million in 1998, an increase of $60.9 million or 6% over the prior year. This increase was primarily due to the growth in demand within the U.S. cancer chemotherapy market and the effect of higher prices in the U.S. The Company believes that the use of protease inhibitors as a treatment for AIDS has reduced and may continue to reduce sales of NEUPOGEN(R) for off-label use as a supportive therapy in this setting. NEUPOGEN(R) is not approved or promoted for such use, except in Australia and Canada.

In 1997, worldwide NEUPOGEN(R) sales were $1,055.7 million, an increase of $39.4 million or 4% over the prior year. This increase was primarily due to growth in demand and higher prices. Unfavorable foreign currency effects and European Union ("EU") government initiatives to lower health care expenditures reduced growth in EU sales.

Cost containment pressures in the U.S. health care marketplace have limited growth in domestic NEUPOGEN(R) sales. These pressures are expected to continue to influence growth for the foreseeable future.

The growth of the colony stimulating factor ("CSF") market in the EU in which NEUPOGEN(R) competes has remained flat, principally due to EU government pressures on physician prescribing practices in response to ongoing government initiatives to reduce health care expenditures. Additionally, the Company faces competition from another granulocyte CSF product. Amgen's CSF market share in the EU has remained relatively constant over the last few years, however, the Company expects that the competitive intensity may increase in the near future.

Other product sales

In 1998, the first full year INFERGEN(R) (Interferon alfacon-1) was on the market, INFERGEN(R) sales were $15.8 million, an increase of $12.4 million or 365% over the prior year. In 1997, INFERGEN(R) sales were $3.4 million, much of which was to fill distribution channels. INFERGEN(R) was launched in October 1997 for the treatment of chronic hepatitis C virus infection. There are other treatments, including a new therapy launched in 1998, for this infection against which INFERGEN(R) competes. The Company cannot predict the extent to which it will penetrate this market.

Cost of sales

Cost of sales as a percentage of product sales was 13.7%, 13.6% and 13.6% for 1998, 1997 and 1996, respectively.

Research and development

In 1998, research and development expenses increased $32.5 million or 5% over the prior year. This increase was primarily due to higher clinical, preclinical and occupancy costs partially offset by lower staff-related expenses and product licensing costs. In 1997, research and development expenses increased $102.5 million or 19% over the prior year. This increase was primarily due to higher clinical and preclinical expenses, including staff-related expenses, necessary to support ongoing product development activities.

Selling, general and administrative

In 1998, selling, general and administrative ("SG&A") expenses increased $31.6 million or 7% over the prior year primarily due to higher staff-related costs, outside marketing expenses and occupancy costs. These

increases were partially offset by lower European marketing costs and lower expenses related to the Johnson & Johnson spillover arbitration. In 1997, SG&A expenses increased $13.2 million, or 3% over the prior year primarily due to higher staff-related expenses, occupancy costs, outside marketing expenses and legal fees. These increases were partially offset by lower European marketing expenses resulting from the favorable effects of foreign currency exchange rates and lower expenses related to the Johnson & Johnson spillover arbitration.

Legal award/assessment

Included in the fourth quarter of 1998 was a credit of $23 million which reflected reduced uncertainty for the Company's potential spillover liability to Johnson & Johnson for the 1995-1997 period. During the third quarter of 1997, the Company recorded a charge of $157 million relating to a spillover arbitration award to Johnson & Johnson. See Note 4 to the Consolidated Financial Statements--"Johnson & Johnson arbitrations".

Interest and other income

In 1998, interest and other income decreased $26.9 million or 37% over the prior year. This decrease was primarily due to the write-downs of certain non-current assets, primarily cost method equity investments, partially offset by a gain realized on the sale of stock in an unaffiliated company. In 1997, interest and other income increased $9 million or 14% over the prior year. This increase was primarily due to higher interest income generated from the Company's investment portfolio as a result of higher average cash balances.

Income taxes

The Company's effective tax rate was 29.5%, 25.2% and 29.4% for 1998, 1997 and 1996, respectively. The tax rate in all three years reflected the tax benefits from the sale of products manufactured in the Company's Puerto Rico fill-and-finish facility. The 1998 tax rate increased as a result of higher pretax income in combination with a provision in the federal tax law which took effect in 1998 that caps tax benefits associated with the Company's Puerto Rico operations at the 1995 income level. The lower tax rate during 1997 compared with 1996 and 1998 is primarily the result of reduced pretax income due to the legal assessment recorded in the third quarter of 1997 (see "--Legal award/assessment") without a corresponding reduction in tax benefits related to Puerto Rican operations. During 1996, the federal research and experimentation tax credit (the "R&E credit") was in effect for only six months compared with the entire year for 1997 and 1998.

Foreign currency transactions

The Company has a program to manage certain portions of its exposure to fluctuations in foreign currency exchange rates arising from international operations. The Company generally hedges certain of its assets and liabilities with foreign currency forward contracts, which typically mature within one to three months. The Company uses foreign currency option contracts and forward contracts which generally expire within 12 months to hedge certain anticipated future sales and expenses. At December 31, 1998, outstanding foreign currency option and forward contracts totaled $66.5 million and $47.4 million, respectively.

Year 2000

The Year 2000 problem (the "Year 2000 Problem") results from computer programs and devices that do not differentiate between the year 1900 and the year 2000 because they were written using two digits rather than four to define the applicable year; accordingly, computer systems that have time-sensitive calculations may not properly recognize the year 2000. This could result in system failures or miscalculations causing disruptions of the Company's operations, including, without limitation, manufacturing, distribution, clinical development, research and other business activities. The Year 2000 Problem is likely to affect the Company's computer hardware, software, systems, devices, applications and manufacturing equipment, including without limitation,

its non-information technology systems (such as elevators, HVAC equipment, security systems and other equipment containing embedded technology such as microcontrollers) (collectively, "Computer Systems"). Amgen is not currently year 2000 compliant. Like many corporations, the Company does not have any previous experience with an issue like the Year 2000 Problem. The Year 2000 Problem potentially affects the Company across its worldwide locations and within substantially all of its business activities. Although the Company believes it is developing an appropriate program to address the Year 2000 Problem, it cannot guarantee that its program will succeed or will be timely. The following is a discussion of the Company's year 2000 program.

Amgen has conducted an initial review of its Computer Systems to identify those areas that could be affected by the Year 2000 Problem and has established a program to address year 2000 issues. The Company is evaluating its functional areas and site locations worldwide. Additionally, the Company has appointed a program manager for year 2000 compliance. The Company has identified the following three principal areas of potential Computer Systems exposure at Amgen to the Year 2000 Problem, in addition to supplier and customer issues which are discussed elsewhere:

- Process Control, Instruments and Environmental Monitoring and Control Systems: these types of systems are used in the Company's manufacturing and clinical trial processes, among other operations. These generally are systems, devices and instruments which utilize date functionality and generate, send, receive or manipulate date-stamped data and signals. These systems may be found in data acquisition/processing software, laboratory instrumentation and other equipment with embedded code, for example. These devices and instruments may be controlled by installed software, firmware or other embedded control algorithms.

- Servers, Desktops and Infrastructure: these generally are desktop computers (PCs and Macintosh) and server computer equipment (NT and UNIX), telecommunications, local area networks, wide area networks, and include system hardware, firmware, installed commercial application software, e-mail, video teleconferencing and electronic calendaring systems, for example.

- Custom Applications and Business Systems: these generally are systems which the Company either wrote or for which the Company has purchased the source code, or applications purchased from an external vendor. These systems include applications developed or purchased by a functional area on computer systems located within Amgen's corporate departments and operated by departmental personnel, such as Amgen's core business systems (including financial systems and sales operations systems), fund transfer systems and personnel management systems.

Amgen has planned an inventory, business risk assessment, remediation, testing and implementation phase in these areas. The Company plans to test appropriate Computer Systems and implement them in their year 2000-compliant form following remediation. The Company has substantially completed the inventory phase and the business risk assessment phase. The Company has revised its deadlines for the remaining phases and expects to have substantially completed the remediation, testing and implementation phases by May 31, 1999, July 31, 1999 and September 30, 1999, respectively. Year 2000 compliance testing of the Company's Computer Systems has commenced in some areas. Since the commencement of its year 2000 efforts, the Company has in the past missed some deadlines at various stages of developing and implementing its program. However, some schedule slippage has been recovered and the Company is working to recover others. The Company is currently behind schedule in some projects. The Company cannot guarantee that it will meet internal or external deadlines for year 2000 compliance.

The Company is using both internal and external resources to identify, correct/reprogram and test its Computer Systems for year 2000 compliance. However, the Company cannot guarantee that these resources will be available at a reasonable cost or at all, due, in part, to competing demands for these resources which the Company anticipates will increase as January 1, 2000 nears. Further, while the Company plans to complete modifications of its business critical Computer Systems prior to the year 2000, if modifications of such business critical Computer Systems, or Computer Systems of Suppliers (as defined below) are not completed in a timely manner, the Year 2000 Problem could have a material adverse effect on the operations and financial position of the Company.

The Company has begun to identify critical providers of information, goods and services ("Suppliers") in order to assess their year 2000 compliance/readiness. Suppliers will be prioritized based on business criticality and year 2000 surveys will be sent to them. The Company plans to have distributed such surveys by March 30, 1999, although some Suppliers have been contacted already. Although the Company cannot control Suppliers' response time or rate to the Company's surveys, the Company hopes to have assessed survey responses by May 31, 1999 and confirmed year 2000 readiness of selected Suppliers by August 31, 1999. The Company does not intend to contact entities that are not critical and cannot guarantee that such entities will be year 2000 compliant. The Company plans to visit selected Suppliers to confirm their year 2000 compliance. In some cases, the Company also plans to stock extra inventory and qualify alternate suppliers, although the Company cannot guarantee the availability of additional supplies or the year 2000 compliance of alternate suppliers. The failure of Suppliers to become year 2000 compliant on a timely basis, or at all, could have a material adverse effect on the Company. The Company is also working to identify its key customers and to understand year 2000 exposure and compliance in that area. However, the Company believes that the failure of its key customers to become year 2000 compliant on a timely basis, or at all, could have a material adverse effect on the Company.

The Company may also be affected by the failure of other third parties to be year 2000 compliant even though these third parties do not directly conduct business with Amgen. For example, the failure of state, federal and private payors or reimbursers to be year 2000 compliant and thus unable to make timely, proper or complete payments to sellers and users of the Company's products, could have a material adverse effect on the Company. The Government Accounting Office has stated that the Health Care Financing Administration, the principal federal reimburser for the Company's marketed products, may not become fully year 2000 compliant on a timely basis.

The Company does not currently have a year 2000 contingency plan established. However, the Company is in the process of developing a "reasonably likely worst case year 2000 scenario" and identifying the principal risks to Amgen. Once such a scenario has been established the Company will develop a contingency plan. The Company has revised its deadlines for finalizing and implementing a contingency plan and anticipates finalizing a contingency plan by mid-1999 and implementing such plan by November 1999.

As of December 31, 1998, total expenditures related to the Company's year 2000 program, including, without limitation, anticipated upgrades, remediation and new Computer Systems, are expected to range from $40 million to $60 million, approximately one-third of which is expected to be capital expenditures. However, these amounts are only estimates and are based on information currently available to the Company; the Company cannot guarantee that these amounts will be adequate to address the Company's year 2000 compliance needs. As of December 31, 1998, the Company estimates that it had incurred approximately $11 million in its year 2000 efforts, including without limitation, internal staff costs, outside consulting fees and Computer Systems upgrades.

The statements set forth herein concerning the Year 2000 Problem which are not historical facts are forward-looking statements that involve risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. There can be no guarantee that any estimates or other forward-looking statements will be achieved and actual results could differ significantly from those planned or contemplated. The Company plans to update the status of its year 2000 program as necessary in its periodic filings and in accordance with applicable securities laws.

Financial Outlook

The Company believes that dialysis providers have increased doses primarily in response to the June HCFA Revisions and due to certain dialysis providers using hemoglobin instead of hematocrit to measure red blood cell counts (see "Results of Operations--Product sales--EPOGEN(R) (Epoetin alfa)"). The Company also believes that increases in the U.S. dialysis patient population and dose will continue to grow EPOGEN(R) sales in the near term. Patients receiving treatment for end stage renal disease are covered primarily under medical

programs provided by the federal government. Therefore, EPOGEN(R) sales may also be affected by future changes in reimbursement rates or a change in the basis for reimbursement by the federal government.

The Clinton administration has proposed a Medicare cost savings plan which includes a provision for cutting Medicare reimbursement of EPOGEN(R) by 10%. This proposal will be addressed during the federal government's fiscal year 2000 budget process. The Company believes the proposal, if enacted, would primarily affect dialysis providers that use EPOGEN(R) and it is difficult to predict its impact on Amgen.

Future NEUPOGEN(R) sales growth is dependent primarily upon further penetration of existing markets, the timing and nature of additional indications for which the product may be approved and the effects of competitive products. Although not approved or promoted for use in Amgen's domestic or foreign markets, except for Australia and Canada, the Company believes that currently approximately 5% of its worldwide NEUPOGEN(R) sales are from off-label use as a supportive therapy to various AIDS treatments. Changes in AIDS therapies, including protease inhibitors that may be less myelosuppressive, are believed to have adversely affected and may continue to adversely affect such sales. NEUPOGEN(R) usage is expected to continue to be affected by cost containment pressures on health care providers worldwide. In addition, reported NEUPOGEN(R) sales will continue to be affected by changes in foreign currency exchange rates, government budgets and increased competition in Europe.

Generally, in the U.S. the cost of drugs and biologicals administered to Medicare-eligible patients receiving outpatient services, such as chemotherapy infusion, is reimbursed under Medicare only if those drugs and biologicals qualify for coverage under Medicare Part B. Generally, drugs and biologicals that are "usually self-administered" are not covered by Medicare. However, Medicare does pay for some drugs and biologicals that are furnished incident to a physician's services. Currently, NEUPOGEN(R) is reimbursed by HCFA under Medicare Part B. HCFA has established broad Medicare coverage policies and, in some cases, interpretations of its policies. However, the Medicare program is administered by a local carrier (typically a private insurance organization that contracts with HCFA) in each state, which is overseen by a medical director under contract with HCFA. These carriers and medical directors have the authority to interpret Medicare reimbursement coverage policies. The Company is aware that medical directors in a few states have preliminarily considered that NEUPOGEN(R) should not be eligible for reimbursement under Medicare Part B principally because, in their opinions, it is "usually self-administered" when delivered subcutaneously. Although to date no local carrier has adopted guidelines or coverage policies that would exclude NEUPOGEN(R) from Medicare Part B coverage, there can be no assurance that these or other carriers or HCFA will not in the future adopt interpretations or guidelines under Medicare Part B or otherwise, that could exclude or limit reimbursement for NEUPOGEN(R). Any guidelines or policies that limit or eliminate reimbursement for NEUPOGEN(R) could adversely affect NEUPOGEN(R) sales.

The Clinton administration has proposed a reduction in the basis upon which Medicare reimburses for outpatient prescription drugs from the current 95% average wholesale price ("AWP") to a proposed level of 83% AWP. This proposal would impact reimbursement of NEUPOGEN(R). The Company believes that this new recommendation, if enacted, would primarily affect customers that use NEUPOGEN(R) and it is difficult to predict its impact on Amgen.

INFERGEN(R) (Interferon alfacon-1) was launched in October 1997 for the treatment of chronic hepatitis C virus infection. There are other treatments, including a new therapy launched in 1998, for this infection against which INFERGEN(R) competes. The Company cannot predict the extent to which it will penetrate this market. The Company is presently engaged in certain litigation related to INFERGEN(R), as described in "Item 3. Legal Proceedings--INFERGEN(R) litigation".

Except for the historical information contained herein, the matters discussed herein are by their nature forward-looking. Investors are cautioned that forward-looking statements or projections made by the Company, including those made in this document, are subject to risks and uncertainties that may cause actual results to differ materially from those projected. Reference is made in particular to forward-looking statements regarding

product sales, earnings per share and expenses. Amgen operates in a rapidly changing environment that involves a number of risks, some of which are beyond the Company's control. Future operating results and the Company's stock price may be affected by a number of factors, including, without limitation: (i) the results of preclinical and clinical trials; (ii) regulatory approvals of product candidates, new indications and manufacturing facilities; (iii) reimbursement for Amgen's products by governments and private payors; (iv) health care guidelines and policies relating to Amgen's products; (v) intellectual property matters (patents) and the results of litigation; (vi) competition; (vii) fluctuations in operating results and (viii) rapid growth of the Company. These factors and others are discussed herein and in the sections appearing in "Item 1. Business--Factors That May Affect Amgen", which sections are incorporated herein by reference.

Legal Matters

The Company is engaged in arbitration proceedings with one of its licensees. For a discussion of these matters, see Note 4 to the Consolidated Financial Statements.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest income earned on the Company's investment portfolio is affected by changes in the general level of U.S. interest rates. The Company's short-term borrowings effectively bear interest at variable rates and therefore, changes in U.S. interest rates affect interest expense incurred thereon. The Company has reduced this exposure to interest rate changes by entering into an interest rate swap agreement that effectively changes interest expense incurred on a portion of its short-term borrowings to a fixed rate. Changes in interest rates do not affect interest expense incurred on the Company's long-term borrowings because they all bear interest at fixed rates. The following tables provide information about the Company's financial instruments that are sensitive to changes in interest rates. For the Company's investment portfolio and debt obligations, the table presents principal cash flows and related weighted-average interest rates by expected maturity dates. Additionally, the Company has assumed its available-for-sale debt securities, comprised primarily of corporate debt instruments and treasury securities, are similar enough to aggregate those securities for presentation purposes. For the interest rate swap, the table presents the notional amount and weighted-average interest rates by contractual maturity date. The notional amount is used to calculate the contractual cash flows to be exchanged under the contract.

Interest Rate Sensitivity
Principal Amount by Expected Maturity as of 12/31/97
Average Interest Rate
(Dollars in millions)

	1998	1999	2000	2001	2002	Thereafter	Total	Fair Value 12/31/97
Available-for-sale debt securities	$451.5	$268.2	$227.1	$65.2	$5.0	--	$1,017.0	$1,029.7
Interest rate	6.5%	7.0%	6.9%	5.7%	6.3%	--		
Long-term debt (including current portion)	$ 30.0	$ 6.0	--	--	--	$223.0	$ 259.0	$ 276.3
Interest rate	5.6%	5.5%	--	--	--	7.2%		

Interest Rate Sensitivity
Principal Amount by Expected Maturity as of 12/31/98
Average Interest Rate
(Dollars in millions)

	1999	2000	2001	2002	2003	Thereafter	Total	Fair Value 12/31/98
Available-for-sale debt securities	$341.5	$524.3	$244.2	$65.1	$71.9	--	$1,247.0	$1,266.2
Interest rate	6.1%	5.7%	5.9%	6.6%	6.7%	--		
Commercial paper	$100.0	--	--	--	--	--	$ 100.0	$ 100.0
Interest rate	5.4%	--	--	--	--	--		
Long-term debt (including current portion)	$ 6.0	--	--	--	$23.0	$200.0	$ 229.0	$ 255.0
Interest rate	5.5%	--	--	--	6.2%	7.3%		
Interest rate swap related to commercial paper issuances:								
Pay fixed/receive variable	--	$ 50.0	--	--	--	--	$ 50.0	$ (0.2)
Avg. pay rate	--	5.3%	--	--	--	--		
Avg. receive rate	--	5.0%	--	--	--	--		

The Company is exposed to equity price risks on the marketable portion of equity securities included in its portfolio of investments entered into for the promotion of business and strategic objectives. These investments are generally in small capitalization stocks in the biotechnology industry sector. The Company typically does not attempt to reduce or eliminate its market exposure on these securities. A 20% adverse change in equity prices would result in an approximate $12 million and $18 million decrease in the fair value of the Company's available-for-sale equity securities at December 31, 1998 and 1997, respectively.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The information required by this item is incorporated herein by reference to the financial statements listed in Item 14(a) of Part IV of this Form 10-K Annual Report.

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

None.

PART III

Item 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information concerning the directors of the Company is incorporated by reference to the section entitled "Election of Directors" in the Company's definitive Proxy Statement with respect to the Company's 1999 Annual Meeting to be filed with the Securities and Exchange Commission within 120 days of December 31, 1998 (the "Proxy Statement"). For information concerning the executive officers of the Company, see "Item 1. Business--Executive Officers of the Registrant".

Item 11. EXECUTIVE COMPENSATION

The section labeled "Executive Compensation" appearing in the Company's Proxy Statement is incorporated herein by reference, except for such information as need not be incorporated by reference under rules promulgated by the Securities and Exchange Commission.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The section labeled "Security Ownership of Directors and Executive Officers and Certain Beneficial Owners" appearing in the Company's Proxy Statement is incorporated herein by reference.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The section labeled "Certain Transactions" appearing in the Company's Proxy Statement is incorporated herein by reference.

PART IV

Item 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a)1. Index to Financial Statements

The following Financial Statements are included herein:

(a)2. Index to Financial Statement Schedules

The following Schedules are filed as part of this Form 10-K Annual Report:

All other schedules are omitted because they are not applicable, or not required, or because the required information is included in the consolidated statements or notes thereto.

(a)3. Exhibits

Exhibit No.	Description
3.1	Restated Certificate of Incorporation as amended.(17)
3.2	Amended and Restated Bylaws.(25)
4.1	Indenture dated January 1, 1992 between the Company and Citibank N.A., as trustee.(8)
4.2	First Supplement to Indenture, dated February 26, 1997 between the Company and Citibank N.A., as trustee.(14)
4.3	Officer's Certificate pursuant to Sections 2.1 and 2.3 of the Indenture, as supplemented, establishing a series of securities "8-1/8% Debentures due April 1, 2097."(16)
4.4	8-1/8% Debentures due April 1, 2097.(16)
4.5	Form of stock certificate for the common stock, par value $.0001 of the Company.(17)
4.6	Officer's Certificate pursuant to Sections 2.1 and 2.3 of the Indenture, dated as of January 1, 1992, as supplemented by the First supplemental Indenture, dated as of February 26, 1997, each between the Company and Citibank, N.A., as Trustee, establishing a series of securities entitled "6.50% Notes Due December 1, 2007".(20)
4.7	6.50% Notes Due December 1, 2007 described in Exhibit 4.6.(20)
4.8	Corporate Commercial Paper--Master Note between and among Amgen Inc., as Issuer, Cede & Co., as nominee of The Depository Trust Company and Citibank, N.A. as Paying Agent.(23)

Exhibit No.	Description
10.1*+	Company's Amended and Restated 1991 Equity Incentive Plan.
10.2*+	Sixth Amendment to the Company's Amended and Restated Retirement and Savings Plan as amended and restated April 1, 1996.
10.3	Shareholder's Agreement of Kirin-Amgen, Inc., dated May 11, 1984, between the Company and Kirin Brewery Company, Limited (with certain confidential information deleted therefrom).(1)
10.4	Amendment Nos. 1, 2, and 3, dated March 19, 1985, July 29, 1985 and December 19, 1985, respectively, to the Shareholder's Agreement of Kirin-Amgen, Inc., dated May 11, 1984 (with certain confidential information deleted therefrom).(3)
10.5	Product License Agreement, dated September 30, 1985, and Technology License Agreement, dated, September 30, 1985 between the Company and Ortho Pharmaceutical Corporation (with certain confidential information deleted therefrom).(2)
10.6	Product License Agreement, dated September 30, 1985, and Technology License Agreement, dated September 30, 1985 between Kirin-Amgen, Inc. and Ortho Pharmaceutical Corporation (with certain confidential information deleted therefrom).(3)
10.7+	Company's Amended and Restated Employee Stock Purchase Plan.(12)
10.8	Research, Development Technology Disclosure and License Agreement PPO, dated January 20, 1986, by and between the Company and Kirin Brewery Co., Ltd.(4)
10.9	Amendment Nos. 4 and 5, dated October 16, 1986 (effective July 1, 1986) and December 6, 1986 (effective July 1, 1986), respectively, to the Shareholders Agreement of Kirin-Amgen, Inc. dated May 11, 1984 (with certain confidential information deleted therefrom).(5)
10.10	Assignment and License Agreement, dated October 16, 1986, between the Company and Kirin-Amgen, Inc. (with certain confidential information deleted therefrom).(5)
10.11	G-CSF European License Agreement, dated December 30, 1986, between Kirin-Amgen, Inc. and the Company (with certain confidential information deleted therefrom).(5)
10.12	Research and Development Technology Disclosure and License Agreement: GM-CSF, dated March 31, 1987, between Kirin Brewery Company, Limited and the Company (with certain confidential information deleted therefrom).(5)
10.13+	Company's Amended and Restated 1988 Stock Option Plan.(12)
10.14+	Company's Amended and Restated Retirement and Savings Plan.(12)
10.15	Amendment, dated June 30, 1988, to Research, Development, Technology Disclosure and License Agreement: GM-CSF dated March 31, 1987, between Kirin Brewery Company, Limited and the Company.(6)
10.16	Agreement on G-CSF in Certain European Countries, dated January 1, 1989, between Amgen Inc. and F. Hoffmann-La Roche & Co. Limited Company (with certain confidential information deleted therefrom).(7)
10.17	Partnership Purchase Agreement, dated March 12, 1993, between the Company, Amgen Clinical Partners, L.P., Amgen Development Corporation, the Class A limited partners and the Class B limited partner.(9)
10.18+	Amgen Inc. Supplemental Retirement Plan (As Amended and Restated Effective January 1, 1998).(23)
10.19	Promissory Note of Mr. Kevin W. Sharer, dated June 4, 1993.(10)
10.20+	Amgen Performance Based Management Incentive Plan.(15)
10.21	Credit Agreement, dated as of May 28, 1998, among Amgen Inc., the Borrowing Subsidiaries named therein, the Banks named therein, Citibank, N.A., as Issuing Bank, and Citicorp USA, Inc., as Administrative Agent.(24)

Exhibit No.	Description
10.22	Promissory Note of Mr. George A. Vandeman, dated December 15, 1995.(11)
10.23	Promissory Note of Mr. George A. Vandeman, dated December 15, 1995.(11)
10.24	Promissory Note of Mr. Stan Benson, dated March 19, 1996.(11)
10.25+	Amendment No. 1 to the Company's Amended and Restated Retirement and Savings Plan.(12)
10.26+	Amendment Number 5 to the Company's Amended and Restated Retirement and Savings Plan dated January 1, 1993.(15)
10.27+	Amendment Number 2 to the Company's Amended and Restated Retirement and Savings Plan dated April 1, 1996.(15)
10.28*+	Amgen Inc. Change of Control Severance Plan effective as of October 20, 1998.
10.29	Preferred Share Rights Agreement, dated February 18, 1997, between Amgen Inc. and American Stock Transfer and Trust Company, Rights Agent.(13)
10.30+	Agreement, dated May 30, 1995, between the Company and George A. Vandeman.(15)
10.31+	First Amendment, effective January 1, 1998, to the Company's Amended and Restated Employee Stock Purchase Plan.(18)
10.32+	Third Amendment, effective January 1, 1997, to the Company's Amended and Restated Retirement and Savings Plan dated April 1, 1996.(18)
10.33	Heads of Agreement dated April 10, 1997, between the Company and Kirin Amgen, Inc., on the one hand, and F. Hoffmann-La Roche Ltd, on the other hand (with certain confidential information deleted therefrom).(18)
10.34	Binding Term Sheet, dated August 20, 1997, between Guilford Pharmaceuticals Inc. and GPI NIL Holdings, Inc., and Amgen Inc. (with certain confidential information deleted therefrom).(19)
10.35	Promissory Note of Ms. Kathryn E. Falberg, dated April 7, 1995.(21)
10.36	Promissory Note of Mr. Edward F. Garnett, dated July 18, 1997.(21)
10.37+	Fourth Amendment to the Company's Amended and Restated Retirement and Savings Plan as amended and restated effective April 1, 1996.(21)
10.38+	Fifth Amendment to the Company's Amended and Restated Retirement and Savings Plan as amended and restated effective April 1, 1996. (21)
10.39+	Company's Amended and Restated 1987 Directors' Stock Option Plan.(15)
10.40	Amended and Restated Agreement on G-CSF in the EU between Amgen Inc. and F. Hoffmann-La Roche Ltd (with certain confidential information deleted therefrom).(23)
10.41	Collaboration and License Agreement, dated December 15, 1997, between the Company, GPI NIL Holdings, Inc. and Guilford Pharmaceuticals Inc. (with certain confidential information deleted therefrom).(22)
21*	Subsidiaries of the Company.
23	Consent of Ernst & Young LLP, Independent Auditors. The consent set forth as page 47 is incorporated herein by reference.
24	Power of Attorney. The Power of Attorney set forth on page 46 is incorporated herein by reference.
27*	Financial Data Schedule for the Year Ended December 31, 1998.
27.1*	Amended and Restated--Financial Data Schedule for the Year Ended December 31, 1997; and for the Year Ended December 31, 1996.

Exhibit No.	Description
27.2*	Amended and Restated--Financial Data Schedule for the Nine Months Ended September 30, 1998; for the Six Months Ended June 30, 1998; and for the Three Months Ended March 31, 1998.
27.3*	Amended and Restated--Financial Data Schedule for the Nine Months Ended September 30, 1997; for the Six Months Ended June 30, 1997; and for the Three Months Ended March 31, 1997.

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* Filed herewith.

\+ Management contract or compensatory plan or arrangement.

(1) Filed as an exhibit to the Annual Report on Form 10-K for the year ended March 31, 1984 on June 26, 1984 and incorporated herein by reference.

(2) Filed as an exhibit to Quarterly Report on Form 10-Q for the quarter ended September 30, 1985 on November 14, 1985 and incorporated herein by reference.

(3) Filed as an exhibit to Quarterly Report on Form 10-Q for the quarter ended December 31, 1985 on February 3, 1986 and incorporated herein by reference.

(4) Filed as an exhibit to Amendment No. 1 to Form S-1 Registration Statement (Registration No. 33-3069) on March 11, 1986 and incorporated herein by reference.

(5) Filed as an exhibit to the Form 10-K Annual Report for the year ended March 31, 1987 on May 18, 1987 and incorporated herein by reference.

(6) Filed as an exhibit to Form 8 amending the Quarterly Report on Form 10-Q for the quarter ended June 30, 1988 on August 25, 1988 and incorporated herein by reference.

(7) Filed as an exhibit to the Form 8 dated November 8, 1989, amending the Annual Report on Form 10-K for the year ended March 31, 1989 on June 28, 1989 and incorporated herein by reference.

(8) Filed as an exhibit to Form S-3 Registration Statement dated December 19, 1991 and incorporated herein by reference.

(9) Filed as an exhibit to the Form 8-A dated March 31, 1993 and incorporated herein by reference.

(10) Filed as an exhibit to the Form 10-Q for the quarter ended September 30, 1993 on November 12, 1993 and incorporated herein by reference.

(11) Filed as an exhibit to the Annual Report on Form 10-K for the year ended December 31, 1995 on March 29, 1996 and incorporated herein by reference.

(12) Filed as an exhibit to the Form 10-Q for the quarter ended September 30, 1996 on November 5, 1996 and incorporated herein by reference.

(13) Filed as an exhibit to the Form 8-K Current Report dated February 18, 1997 on February 28, 1997 and incorporated herein by reference.

(14) Filed as an exhibit to the Form 8-K Current Report dated March 14, 1997 on March 14, 1997 and incorporated herein by reference.

(15) Filed as an exhibit to the Annual Report on Form 10-K for the year ended December 31, 1996 on March 24, 1997 and incorporated herein by reference.

(16) Filed as an exhibit to the Form 8-K Current Report dated April 8, 1997 on April 8, 1997 and incorporated herein by reference.

(17) Filed as an exhibit to the Form 10-Q for the quarter ended March 31, 1997 on May 13, 1997 and incorporated herein by reference.

(18) Filed as an exhibit to the Form 10-Q for the quarter ended June 30, 1997 on August 12, 1997 and incorporated herein by reference.

(19) Filed as exhibit 10.47 to the Guilford Form 8-K Current Report dated August 20, 1997 on September 4, 1997 and incorporated herein by reference.

(20) Filed as an exhibit to the Form 8-K Current Report dated and filed on December 5, 1997 and incorporated herein by reference.

(21) Filed as an exhibit to the Annual Report on Form 10-K for the year ended December 31, 1997 on March 24, 1998 and incorporated herein by reference.

(22) Filed as Exhibit 10.40 to the Guilford Form 10-K for the year ended December 31, 1997 and incorporated herein by reference.

(23) Filed as an exhibit to the Form 10-Q for the quarter ended March 31, 1998 on May 13, 1998 and incorporated herein by reference.
(24) Filed as an exhibit to the Form 10-Q for the quarter ended June 30, 1998 on August 14, 1998 and incorporated herein by reference.
(25) Filed as an exhibit to the Form 10-Q for the quarter ended September 30, 1998 on November 16, 1998 and incorporated herein by reference.

(b) Reports on Form 8-K

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

AMGEN INC.
(Registrant)

Date: 3/16/99

By: /s/ Kathryn E. Falberg
Kathryn E. Falberg
Senior Vice President, Finance
and Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL MEN AND WOMEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Kathryn E. Falberg and Marc M.P. de Garidel, or either of them, his or her attorney-in-fact, each with the power of substitution, for him or her in any and all capacities, to sign any amendments to this Report, 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 or her 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 below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Gordon M. Binder Gordon M. Binder	Chairman of the Board, Chief Executive Officer and Director (Principal Executive Officer)	March 16, 1999
/s/ Kevin W. Sharer Kevin W. Sharer	President, Chief Operating Officer and Director	March 16, 1999
/s/ Kathryn E. Falberg Kathryn E. Falberg	Senior Vice President, Finance and Chief Financial Officer	March 16, 1999
/s/ Marc M.P. de Garidel Marc M.P. de Garidel	Vice President, Controller and Chief Accounting Officer	March 16, 1999
/s/ William K. Bowes, Jr. William K. Bowes, Jr.	Director	March 16, 1999
/s/ Jerry D. Choate Jerry D. Choate	Director	March 16, 1999
/s/ Frederick W. Gluck Frederick W. Gluck	Director	March 16, 1999
/s/ Franklin P. Johnson, Jr. Franklin P. Johnson, Jr.	Director	March 16, 1999
/s/ Steven Lazarus Steven Lazarus	Director	March 16, 1999
/s/ Gilbert S. Omenn Gilbert S. Omenn	Director	March 16, 1999
/s/ Judith C. Pelham Judith C. Pelham	Director	March 16, 1999

EXHIBIT 23

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statement (Form S-8 No. 33-5111) pertaining to the 1984 Stock Option Plan, 1981 Incentive Stock Option Plan and Nonqualified Stock Option Plan of Amgen Inc., in the Registration Statement (Form S-8 No. 33-24013) pertaining to the Amended and Restated 1988 Stock Option Plan of Amgen Inc., in the Registration Statement (Form S-8 No. 33-39183) pertaining to the Amended and Restated Employee Stock Purchase Plan, in the Registration Statement (Form S-8 No. 33-39104) pertaining to the Amended and Restated Amgen Retirement and Savings Plan, in the Registration Statements (Form S-3/S-8 No. 33-29791 and Form S-8 No. 33-42501) pertaining to the Amended and Restated 1987 Directors' Stock Option Plan, in the Registration Statement (Form S-8 No.33-42072) pertaining to the Amgen Inc. Amended and Restated 1991 Equity Incentive Plan, in the Registration Statement (Form S-8 No. 33-47605) pertaining to the Retirement and Savings Plan for Amgen Puerto Rico, Inc., in the Registration Statement (Form S-8 No. 333-44727) pertaining to the Amgen Inc. 1997 Special Non-Officer Equity Incentive Plan, in the Registration Statement (Form S-3 No. 333-40405) of Amgen Inc., in the Registration Statement (Form S-8 No. 333-62735) pertaining to the Amgen Inc. Amended and Restated 1997 Special Non-Officer Equity Incentive Plan and in the Registration Statement (Form S-3 No. 333-53929) pertaining to the Amgen Inc. 1997 Special Non-Officer Equity Incentive Plan, the Amgen Inc. Amended and Restated 1991 Equity Incentive Plan, the Amended and Restated 1988 Stock Option Plan of Amgen Inc. and the Amended and Restated 1987 Directors' Stock Option Plan and in the related Prospectuses of our report dated January 26, 1999, with respect to the consolidated financial statements and financial statement schedule of Amgen Inc. included in this Annual Report (Form 10-K) for the year ended December 31, 1998.

/s/ Ernst & Young LLP

Los Angeles, California
March 16, 1999

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders of Amgen Inc.

We have audited the accompanying consolidated balance sheets of Amgen Inc. as of December 31, 1998 and 1997, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1998. Our audits also included the financial statement schedule listed in the Index at Item 14(a). 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 generally accepted auditing standards. 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 Amgen Inc. at December 31, 1998 and 1997, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 1998, in conformity with 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.

/s/ Ernst & Young LLP

Los Angeles, California
January 26, 1999

AMGEN INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

Years ended December 31, 1998, 1997 and 1996
(In millions, except per share data)

	1998	1997	1996
Revenues:			
Product sales	$2,514.4	$2,219.8	$2,088.2
Corporate partner revenues	127.9	125.9	109.9
Royalty income	75.9	55.3	41.7
Total revenues	2,718.2	2,401.0	2,239.8
Operating expenses:			
Cost of sales	345.2	300.8	283.2
Research and development	663.3	630.8	528.3
Selling, general and administrative	515.4	483.8	470.6
Loss of affiliates, net	28.6	36.1	52.8
Legal (award) assessment	(23.0)	157.0	--
Total operating expenses	1,529.5	1,608.5	1,334.9
Operating income	1,188.7	792.5	904.9
Other income (expense):			
Interest and other income, net	45.7	72.6	63.6
Interest expense, net	(10.0)	(3.7)	(6.2)
Total other income (expense)	35.7	68.9	57.4
Income before income taxes	1,224.4	861.4	962.3
Provision for income taxes	361.2	217.1	282.5
Net income	$ 863.2	$ 644.3	$ 679.8
Earnings per share:			
Basic	$ 1.69	$ 1.22	$ 1.28
Diluted	$ 1.63	$ 1.17	$ 1.21
Shares used in calculation of earnings per share:			
Basic	510.1	528.3	529.7
Diluted	528.7	549.3	561.4

See accompanying notes.

AMGEN INC.

CONSOLIDATED BALANCE SHEETS

December 31, 1998 and 1997
(In millions, except per share data)

	1998	1997
ASSETS		
Current assets:		
Cash and cash equivalents	$ 201.1	$ 239.1
Marketable securities	1,074.9	787.4
Trade receivables, net of allowance for doubtful accounts of $17.1 in 1998 and $14.2 in 1997	319.9	269.0
Inventories	110.8	109.2
Other current assets	156.6	138.8
Total current assets	1,863.3	1,543.5
Property, plant and equipment at cost, net	1,450.2	1,186.2
Investments in affiliated companies	120.9	116.9
Other assets	237.8	263.6
	$3,672.2	$3,110.2
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 121.6	$ 103.9
Commercial paper	99.7	--
Accrued liabilities	659.7	608.0
Current portion of long-term debt	6.0	30.0
Total current liabilities	887.0	741.9
Long-term debt	223.0	229.0
Contingencies		
Stockholders' equity:		
Preferred stock; $.0001 par value; 5 shares authorized; none issued or outstanding	--	--
Common stock and additional paid-in capital; $.0001 par value; 750 shares authorized; outstanding--509.2 shares in 1998 and 516.6 shares in 1997	1,671.9	1,218.2
Retained earnings	894.3	943.2
Accumulated other comprehensive loss	(4.0)	(22.1)
Total stockholders' equity	2,562.2	2,139.3
	$3,672.2	$3,110.2

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Years ended December 31, 1998, 1997 and 1996
(In millions)

	Number of shares	Common stock and additional paid-in capital	Retained earnings	Accumulated other comprehensive income/(loss)	Total
Balance at December 31, 1995	531.5	$ 868.0	$ 807.0	$(3.2)	$1,671.8
Comprehensive Income:					
Net income	--	--	679.8	--	679.8
Other comprehensive income, net of tax:					
Foreign currency translation adjustments	--	--	--	0.9	0.9
Total other comprehensive income	--	--	--	--	0.9
Comprehensive income	--	--	--	--	680.7
Issuance of common stock upon the exercise of stock options and in connection with an employee stock purchase plan	13.3	112.6	--	--	112.6
Tax benefits related to stock options	--	48.6	--	--	48.6
Reclassification of put warrant obligation	--	--	(157.4)	--	(157.4)
Repurchases of common stock	(15.5)	--	(450.0)	--	(450.0)
Balance at December 31, 1996	529.3	1,029.2	879.4	(2.3)	1,906.3
Comprehensive Income:					
Net income	--	--	644.3	--	644.3
Other comprehensive loss, net of tax:					
Unrealized losses on securities, net of reclassification adjustments	--	--	--	(1.1)	(1.1)
Foreign currency translation adjustments	--	--	--	(18.7)	(18.7)
Total other comprehensive loss	--	--	--	--	(19.8)
Comprehensive income	--	--	--	--	624.5
Issuance of common stock upon the exercise of stock options and in connection with an employee stock purchase plan	14.6	134.3	--	--	134.3
Tax benefits related to stock options	--	54.7	--	--	54.7
Reclassification of put warrant obligation	--	--	157.4	--	157.4
Repurchases of common stock	(27.3)	--	(737.9)	--	(737.9)

Balance at December 31, 1997	516.6	1,218.2	943.2	(22.1)	2,139.3
Comprehensive Income:					
Net income	--	--	863.2	--	863.2
Other comprehensive income, net of tax:					
Unrealized gains on securities, net of reclassification adjustments	--	--	--	9.1	9.1
Foreign currency translation adjustments	--	--	--	9.0	9.0
Total other comprehensive income	--	--	--	--	18.1
Comprehensive income	--	--	--	--	881.3
Issuance of common stock upon the exercise of stock options and in connection with an employee stock purchase plan	21.3	345.5	--	--	345.5
Tax benefits related to stock options	--	108.2	--	--	108.2
Repurchases of common stock	(28.7)	--	(912.1)	--	(912.1)
Balance at December 31, 1998	509.2	$1,671.9	$ 894.3	$(4.0)	$2,562.2

See accompanying notes.

AMGEN INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years ended December 31, 1998, 1997 and 1996
(In millions)

	1998	1997	1996
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income	$ 863.2	$ 644.3	$ 679.8
Depreciation and amortization	143.8	117.1	100.3
Other non-cash expenses	33.1	--	--
Gain on sale of investments	(17.3)	--	--
Deferred income taxes	(5.6)	(31.4)	25.6
Loss of affiliates, net	28.6	36.1	52.8
Cash provided by (used in):			
Trade receivables, net	(50.9)	(43.6)	(26.1)
Inventories	(1.6)	(11.8)	(8.6)
Other current assets	(21.2)	5.0	(11.8)
Accounts payable	17.7	28.9	20.6
Accrued liabilities	51.7	158.3	(10.0)
Net cash provided by operating activities	1,041.5	902.9	822.6
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchases of property, plant and equipment	(407.8)	(387.8)	(266.9)
Proceeds from maturities of marketable securities	20.1	244.3	168.3
Proceeds from sales of marketable securities	466.2	647.1	762.4
Purchases of marketable securities	(766.3)	(767.5)	(854.8)
Increase in investments in affiliated companies	(6.5)	(3.3)	(14.6)
Decrease (increase) in other assets	20.6	(35.0)	(104.6)
Net cash used in investing activities	(673.7)	(302.2)	(310.2)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Increase (decrease) in commercial paper	99.7	--	(69.7)
Repayment of long-term debt	(30.0)	(118.2)	--
Proceeds from issuance of long-term debt	--	200.0	--
Net proceeds from issuance of common stock upon the exercise of stock options and in connection with an employee stock purchase plan	345.5	134.3	112.6
Tax benefits related to stock options	108.2	54.7	48.6
Repurchases of common stock	(912.1)	(737.9)	(450.0)
Other	(17.1)	(63.8)	(51.3)
Net cash used in financing activities	(405.8)	(530.9)	(409.8)
(Decrease) increase in cash and cash equivalents	(38.0)	69.8	102.6
Cash and cash equivalents at beginning of period	239.1	169.3	66.7
Cash and cash equivalents at end of period	$ 201.1	$ 239.1	$ 169.3

See accompanying notes.

1. Summary of significant accounting policies

Business

Amgen Inc. ("Amgen" or the "Company") is a global biotechnology company that discovers, develops, manufactures and markets human therapeutics based on advances in cellular and molecular biology.

Principles of consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries as well as affiliated companies in which the Company has a controlling financial interest and exercises control over their operations ("majority controlled affiliates"). All material intercompany transactions and balances have been eliminated in consolidation. Investments in affiliated companies which are 50% or less owned and where the Company exercises significant influence over operations are accounted for using the equity method. All other equity investments are accounted for under the cost method. The caption "Loss of affiliates, net" includes Amgen's equity in the operating results of affiliated companies and the minority interest others hold in the operating results of Amgen's majority controlled affiliates.

Available-for-sale securities

The Company considers cash equivalents to be only those investments which are highly liquid, readily convertible to cash and which mature within three months from date of purchase.

The Company considers its investment portfolio and cost method equity investments available-for-sale as defined in Statement of Financial Accounting Standards ("SFAS") No. 115 and accordingly, these investments are recorded at fair value (see Note 9). There were no material unrealized gains or losses nor any material differences between the estimated fair values and costs of securities at December 31, 1998 and 1997. Realized gains and losses for the year ended December 31, 1998 were $17.3 million and $33.1 million, respectively. There were no material realized gains and losses for the years ended December 31, 1997 and 1996. The cost of securities sold is based on the specific identification method. The fair value of available-for-sale investments by type of security, contractual maturity and classification in the balance sheet are as follows (in millions):

	December 31,	
	1998	1997
Type of security:		
Corporate debt securities	$ 846.0	$ 597.2
U.S. Treasury securities and obligations of U.S. government agencies	166.3	266.3
Other interest bearing securities	253.9	166.2
Total debt securities	1,266.2	1,029.7
Equity securities	87.1	97.9
	$1,353.3	$1,127.6
Contractual maturity:		
Maturing in one year or less	$ 344.6	$ 453.3
Maturing after one year through three years	739.9	505.4
Maturing after three years	181.7	71.0
Total debt securities	1,266.2	1,029.7
Equity securities	87.1	97.9
	$1,353.3	$1,127.6
Classification in balance sheet:		
Cash and cash equivalents	$ 201.1	$ 239.1
Marketable securities	1,074.9	787.4
Other assets--noncurrent	127.1	137.9
	1,403.1	1,164.4
Less cash	(49.8)	(36.8)
	$1,353.3	$1,127.6

The primary objectives for the Company's investment portfolio are liquidity and safety of principal. Investments are made to achieve the highest rate of return to the Company, consistent with these two objectives. The Company's investment policy limits investments to certain types of instruments issued by institutions with investment grade credit ratings and places restrictions on maturities and concentration by type and issuer. The Company invests its excess cash in securities with varying maturities to meet projected cash needs.

Inventories

Inventories are stated at the lower of cost or market. Cost is determined in a manner which approximates the first-in, first-out (FIFO) method. Inventories are shown net of applicable reserves and allowances. Inventories consisted of the following (in millions):

	December 31,	
	1998	1997
Raw materials	$ 18.1	$ 18.7
Work in process	49.1	53.6
Finished goods	43.6	36.9
	$110.8	$109.2

Depreciation and amortization

Depreciation of buildings and equipment is provided over their estimated useful lives on a straight-line basis. Leasehold improvements are amortized on a straight-line basis over the shorter of their estimated useful lives or lease terms, including periods covered by options which are expected to be exercised. Useful lives by asset category are as follows:

Asset Category	Years
Buildings and building improvements	10-30
Manufacturing equipment	5
Laboratory equipment	5
Furniture and office equipment	3-10

Long-lived assets

The Company reviews its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable.

Product sales

Product sales consist of three products, EPOGEN(R) (Epoetin alfa), NEUPOGEN(R) (Filgrastim) and INFERGEN(R) (Interferon alfacon-1) (see Note 10).

The Company has the exclusive right to sell Epoetin alfa for dialysis, diagnostics and all non-human uses in the United States. The Company sells Epoetin alfa under the brand name EPOGEN(R). Amgen has granted to Ortho Pharmaceutical Corporation, a subsidiary of Johnson & Johnson ("Johnson & Johnson"), a license relating to Epoetin alfa for sales in the United States for all human uses except dialysis and diagnostics. Pursuant to this license, Amgen does not recognize product sales it makes into the exclusive market of Johnson & Johnson and does recognize the product sales made by Johnson & Johnson into Amgen's exclusive market. Sales in Amgen's exclusive market and adjustments thereto are derived from Company shipments and from third-party data on shipments to end users and their usage (see Note 4, "Contingencies--Johnson & Johnson arbitrations"). Sales of the Company's other products are recognized when shipped.

Research and development costs

Research and development costs are expensed as incurred. Payments related to the acquisition of technology rights, for which development work is in-process, are expensed and considered a component of research and development costs.

Foreign currency transactions

The Company has a program to manage foreign currency risk. As part of this program, it has purchased foreign currency option and forward contracts to hedge against possible reductions in values of certain anticipated foreign currency cash flows generally over the next 12 months, primarily resulting from its sales in Europe. At December 31, 1998, the Company had option contracts and forward contracts to exchange foreign currencies for U.S. dollars of $66.5 million and $33.8 million, respectively, all having maturities of eight months or less. The option contracts, which have only nominal intrinsic value at the time of purchase, are designated as effective hedges of anticipated foreign currency transactions for financial reporting purposes and accordingly, the net gains on such contracts are deferred and recognized in the same period as the hedged transactions. The forward contracts do not qualify as hedges for financial reporting purposes and accordingly, are marked-to-market. Net gains on option contracts (including option contracts for hedged transactions whose occurrence are no longer probable) and changes in market values of forward contracts are reflected in "Interest and other income, net". The deferred premiums on option contracts and fair values of forward contracts are included in "Other current assets".

The Company has additional foreign currency forward contracts to hedge exposures to foreign currency fluctuations of certain assets and liabilities denominated in foreign currencies. At December 31, 1998, the Company had forward contracts to exchange foreign currencies for U.S. dollars of $13.6 million, all having maturities of less than one month. These contracts are designated as effective hedges and accordingly, gains and losses on these forward contracts are recognized in the same period the offsetting gains and losses of hedged assets and liabilities are realized and recognized. The fair values of the forward contracts are included in the corresponding captions of the hedged assets and liabilities. Gains and losses on forward contracts, to the extent they differ in amount from the hedged assets and liabilities, are included in "Interest and other income, net".

In June 1998, the Financial Accounting Standards Board issued SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," which is required to be adopted in fiscal years beginning after June 15, 1999. Because of the Company's minimal use of derivatives, management anticipates that the adoption of this new statement will not have a significant effect on earnings or the financial position of the Company.

Interest rate swap

The Company has an interest rate swap agreement with a notional amount of $50 million that changes the nature of the interest rate paid on a portion of its commercial paper. Under the agreement, the Company pays a fixed interest rate of approximately 5.3% in exchange for the receipt of variable interest rate payments. The agreement will terminate in 2000. The differential in the variable rate interest payments is recognized as an increase/decrease in interest expense related to debt. The related amounts payable to and receivable from the counterparty are recorded in accrued liabilities. The fair value of the swap agreement is not recognized in the financial statements.

Interest

Interest costs are expensed as incurred, except to the extent such interest is related to construction in progress, in which case interest is capitalized. Interest costs capitalized for the years ended December 31, 1998, 1997 and 1996, were $19.2 million, $10.5 million and $4.2 million, respectively.

Employee stock option and stock purchase plans

The Company's employee stock option and stock purchase plans are accounted for under Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees" (see Note 7).

Earnings per share

Basic earnings per share is based upon the weighted-average number of common shares outstanding. Diluted earnings per share is based upon the weighted-average number of common shares and dilutive potential common shares outstanding. Potential common shares are outstanding options under the Company's employee stock option plans which are included under the treasury stock method.

The following table sets forth the computation for basic and diluted earnings per share (in millions, except per share information):

	Years ended December 31,		
	1998	1997	1996
Numerator for basic and diluted earnings per share--net income	$863.2	$644.3	$679.8
Denominator:			
Denominator for basic earnings per share--weighted-average shares	510.1	528.3	529.7
Effect of dilutive securities--employee stock options	18.6	21.0	31.7
Denominator for diluted earnings per share--adjusted weighted-average shares	528.7	549.3	561.4
Basic earnings per share	$ 1.69	$ 1.22	$ 1.28
Diluted earnings per share	$ 1.63	$ 1.17	$ 1.21

Options to purchase 1.5 million, 21.4 million and 0.4 million shares with exercise prices greater than the average market prices of common stock were outstanding at December 31, 1998, 1997 and 1996, respectively. These options were excluded from the respective computations of diluted earnings per share because their effect would be anti-dilutive.

Use of estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from those estimates.

Reclassification

Certain prior year amounts have been reclassified to conform to the current year presentation.

2. Related party transactions

The Company owns a 50% interest in Kirin-Amgen, Inc. ("Kirin-Amgen"), a corporation formed in 1984 for the development and commercialization of certain products based on advanced biotechnology. Pursuant to the terms of agreements entered into with Kirin-Amgen, the Company conducts certain research and development activities on behalf of Kirin-Amgen and is paid for such services at negotiated rates. Included in revenues from corporate partners for the years ended December 31, 1998, 1997 and 1996, are $121 million, $87.9 million and $79.9 million, respectively, related to these agreements.

In connection with its various agreements with Kirin-Amgen, the Company has been granted sole and exclusive licenses for the manufacture and sale of certain products in specified geographic areas of the world.

In return for such licenses, the Company paid Kirin-Amgen stated amounts upon the receipt of the licenses and/or pays Kirin-Amgen royalties based on sales. During the years ended December 31, 1998, 1997 and 1996, Kirin-Amgen earned royalties from Amgen of $105 million, $91.4 million and $86.2 million, respectively, under such agreements, which are included in "Cost of sales" in the accompanying consolidated statements of operations.

At December 31, 1998, Amgen's share of Kirin-Amgen's undistributed retained earnings was approximately $72.1 million.

3. Debt

The Company has a commercial paper program which provides for unsecured short-term borrowings up to an aggregate of $200 million. As of December 31, 1998, commercial paper with a face amount of $100 million was outstanding. These borrowings had maturities of less than two months and had effective interest rates averaging 5.5%. No commercial paper was outstanding at December 31, 1997.

In November 1997, the Company established a $500 million debt shelf registration statement. In December 1997, pursuant to this registration statement, the Company issued $100 million of debt securities that bear interest at a fixed rate of 6.5% and mature in 2007 (the "Notes") and established a $400 million medium-term note program. The Company may offer and issue medium-term notes from time to time with terms to be determined by market conditions.

In April 1997, the Company issued $100 million of debt securities that bear interest at a fixed rate of 8.1% and mature in 2097 (the "Century Notes"). These securities may be redeemed in whole or in part at the Company's option at any time for a redemption price equal to the greater of the principal amount to be redeemed or the sum of the present values of the principal and remaining interest payments discounted at a determined rate plus, in each case, accrued interest.

In addition to the Notes and the Century Notes, debt securities outstanding at December 31, 1998 include $29 million of notes that bear interest at fixed rates averaging 6.1% and have remaining maturities of less than five years, of which $6 million mature within one year. The terms of the debt securities require the Company to meet certain debt to tangible net asset ratios and places limitations on liens and sale/leaseback transactions and, except with respect to the Notes and the Century Notes, places limitations on subsidiary indebtedness.

The Company has an unsecured credit facility (the "credit facility") that includes a commitment expiring on May 28, 2003 for up to $150 million of borrowings under a revolving line of credit (the "revolving line commitment"). As of December 31, 1998, $150 million was available under the revolving line commitment for borrowing. Borrowings under the revolving line commitment bear interest at various rates which are a function of, at the Company's option, either the prime rate of a major bank, the federal funds rate or a Eurodollar base rate. Under the terms of the credit facility, the Company is required to meet a minimum interest coverage ratio and maintain a minimum level of tangible net worth. In addition, the credit facility contains limitations on investments, liens and sale/leaseback transactions.

The aggregate stated maturities of all long-term obligations due subsequent to December 31, 1998, are as follows: $6 million in 1999; none in 2000 through 2002; $23 million in 2003; and $200 million after 2003.

4. Contingencies

Johnson & Johnson arbitrations

Epoetin alfa

In September 1985, the Company granted Johnson & Johnson's affiliate, Ortho Pharmaceutical Corporation, a license relating to certain patented technology and know-how of the Company to sell a genetically engineered form of recombinant human erythropoietin, called Epoetin alfa, throughout the United States for all human uses except dialysis and diagnostics. Johnson & Johnson sells Epoetin alfa under the brand name PROCRIT(R). A number of disputes have arisen between Amgen and Johnson & Johnson as to their respective rights and obligations under the various agreements between them, including the agreement granting the license (the "License Agreement").

A dispute between Amgen and Johnson & Johnson that has been the subject of an arbitration proceeding relates to the audit methodology currently employed by the Company for Epoetin alfa sales. The Company and Johnson & Johnson are required to compensate each other for Epoetin alfa sales which either party makes into the other party's exclusive market, sometimes referred to as "spillover". Spillover occurs when, for example, a hospital or other purchaser buys one brand for use in both dialysis and non-dialysis indications. The Company has established and is employing an audit methodology to assign the proceeds of sales of EPOGEN(R) and PROCRIT(R) in the Company's and Johnson & Johnson's respective exclusive markets. On September 12, 1997, the arbitrator in this matter (the "Arbitrator") issued an opinion adopting the Company's audit methodology. For the freestanding dialysis center segment of the Epoetin alfa market, which accounts for about two-thirds of the Company's EPOGEN(R) sales, the Arbitrator ruled that the Company's audit accurately determined that all Epoetin alfa sales to freestanding dialysis centers are made for dialysis. For the other segments of the Epoetin alfa market, the Arbitrator ruled that the detailed methodology used by Amgen accurately measured and allocated Epoetin alfa sales for all but the Hospital and Home Health Care segments, for which he ordered certain adjustments to the results of the audit for the 1991-94 time period. The Arbitrator also ruled that no payments are due for the 1989-90 period. Subject to further guidance from the Arbitrator to clarify his opinion and the issuance of the Arbitrator's final order, the Company estimated that the effect of the opinion would be a net spillover payment to Johnson & Johnson which, after benefit of income tax effects, was $78 million for the 1991-94 period and interest in the amount of $18 million after tax. As a result of the opinion, the Company took a charge of $0.18 per share in the third quarter of 1997 for the spillover payment and interest.

A hearing before the Arbitrator was held on October 27, 1997 to clarify, among other issues, the calculation for the amount of the spillover payment due to Johnson & Johnson for the 1991-94 time period. As a result of that hearing, the Company's spillover obligation to Johnson & Johnson was increased for the 1991-94 period in an amount which was covered by amounts previously provided for by the Company. On April 14, 1998, the Arbitrator issued his final order which confirmed that the Company was the successful party in the arbitration and, as a result, Johnson & Johnson was ordered to pay to the Company all costs and expenses, including reasonable attorneys' fees, that the Company incurred in the arbitration as well as one-half of the audit costs. The final order also confirmed that for the period 1995 forward, the estimates of usage of Epoetin alfa in the Hospital segment of the Company's audit methodology shall be applied without adjustment, subject to the right of either party to challenge the Hospital survey results for 1995 and certain subsequent years.

Both parties filed and presented arguments on motions seeking reconsideration of certain aspects of the Arbitrator's final order. On July 29, 1998, the Arbitrator issued his opinion on both parties' motions for reconsideration. The Arbitrator granted the Company's motion to reconsider one aspect of the adjustment to the results of the audit for the Hospital segments. The Arbitrator's ruling changed the calculation for those segments and reduced the Company's liability to Johnson & Johnson for the 1991-94 period. Due to remaining

uncertainties, the Company did not recognize any benefit from the reduced liability for 1991-94 in the third quarter. The Arbitrator denied all other motions, including Johnson & Johnson's motion seeking a reconsideration of the award to the Company of all costs and expenses, including reasonable attorneys' fees and costs, that the Company incurred in the arbitration as well as one-half of the audit costs. The Company has submitted a bill for such costs incurred over an eight year period of approximately $110 million; however, the actual amount of the Company's recovery will be determined by the Arbitrator. On October 26, 1998, Johnson & Johnson filed a petition in the Circuit Court of Cook County, Illinois seeking to vacate or modify the Arbitrator's award to the Company of all costs and expenses, including reasonable attorneys' fees and costs, that the Company incurred in the arbitration. On January 8, 1999, the Company filed a motion to dismiss Johnson & Johnson's petition. On January 20, 1999, Johnson & Johnson informed the Company that they intend to contest substantially all costs and expenses, including reasonable attorneys' fees, that the Company incurred in the arbitration as well as one-half of the audit costs. Due to remaining uncertainties the Company has not recognized any benefit from the recovery of attorneys' fees and costs or audit costs.

On August 12, 1998, Johnson & Johnson gave notice of challenge to the results of the audit of the Hospital segment for the 1995-97 period and on December 24, 1998, Johnson & Johnson quantified its challenge. As a result, the Company has reduced amounts previously provided for the Company's potential spillover liability by $23 million in the fourth quarter. The Company does not expect that any additional compensation for the 1995-97 period would have a material adverse effect on the annual financial statements of Amgen due to amounts previously provided for by the Company.

Pursuant to the final order in the arbitration, an independent panel has been formed principally (i) to address challenges to the survey results for 1995 and certain subsequent years and (ii) to refine the procedures for measuring the erythropoietin market as may be necessary. The challenge to the 1995-97 survey results has been brought pursuant to this procedure. Johnson & Johnson has also given notice of challenge to certain 1998 survey results pursuant to this procedure.

The Company has filed a demand in the arbitration to terminate Johnson & Johnson's rights under the License Agreement and to recover damages for breach of the License Agreement. Johnson & Johnson disputes the Arbitrator's jurisdiction to decide the Company's demand. Pursuant to the Arbitrator's ruling, discovery relating to the Company's termination claim has commenced. No trial date on this matter has been set.

On October 2, 1995, Johnson & Johnson filed a demand for a separate arbitration proceeding against the Company before the American Arbitration Association ("AAA") in Chicago, Illinois. Johnson & Johnson alleges in this demand that the Company has breached the License Agreement. The demand also includes allegations of various antitrust violations. In this demand, Johnson & Johnson seeks an injunction, declaratory relief, unspecified compensatory damages, punitive damages and costs. On October 27, 1995, the Company filed a complaint in the Circuit Court of Cook County, Illinois seeking an order compelling Johnson & Johnson to arbitrate the Company's claim for termination before the Arbitrator as well as all related counterclaims asserted in Johnson & Johnson's October 2, 1995 AAA arbitration demand. The Company is unable to predict at this time the outcome of the demand for termination or when it will be resolved. The Company has filed a motion to stay the AAA arbitration pending the outcome of the existing arbitration proceedings before the Arbitrator discussed above. The Company has also filed an answer and counterclaim denying that AAA has jurisdiction to hear or decide the claims stated in the demand, denying the allegations in the demand and counter claiming for certain unpaid invoices.

NESP

On June 5, 1997, Johnson & Johnson filed a demand for arbitration against Kirin-Amgen, Inc. ("Kirin-Amgen"), an affiliate of the Company, before the AAA. The demand alleges that Amgen's novel

erythropoiesis stimulating protein ("NESP") is covered by a license granted by Kirin-Amgen to Johnson & Johnson in 1985 for the development, manufacture and sale of Epoetin alfa in certain territories outside the United States, Japan and China (the "K-A License"). In 1996 Kirin-Amgen acquired exclusive worldwide rights in NESP from Amgen. Kirin-Amgen, in turn, transferred certain rights in NESP to Kirin and certain rights to Amgen. Johnson & Johnson alleges that the K-A License effectively grants Johnson & Johnson the same right to develop, manufacture and sell NESP as granted under the K-A License with respect to Epoetin alfa. Kirin-Amgen filed its answer to Johnson & Johnson's complaint on January 12, 1998, denying that Johnson & Johnson has rights to NESP. Kirin-Amgen also asserted a counterclaim for the recovery of certain royalty payments which Kirin-Amgen asserts were improperly withheld. These same disputes exist between the Company and Johnson & Johnson under the License Agreement and the parties have agreed that the resolution of these issues in this arbitration will be binding upon them with respect to the License Agreement. The testimony phase of the trial ended in October 1998, and following the submission of post-trial briefs in November, the Arbitrators heard closing arguments on December 11, 1998. On December 18, 1998, the Arbitrators issued their Order denying all of Johnson & Johnson's claims with regard to NESP. The Arbitrators also ordered Johnson & Johnson to pay to the Company all of the Company's costs and expenses involved in the arbitration, including reasonable attorneys' fees.

While it is not possible to predict accurately or determine the eventual outcome of the above described legal matters or various other legal proceedings (including patent disputes) involving Amgen, the Company believes that the outcome of these proceedings will not have a material adverse effect on its annual financial statements.

5. Income taxes

The provision for income taxes includes the following (in millions):

	Years ended December 31,		
	1998	1997	1996
Current provision:			
Federal (including U.S. possessions)	$339.6	$227.2	$240.4
State	27.2	21.2	16.6
Total current provision	366.8	248.4	257.0
Deferred provision (benefit):			
Federal (including U.S. possessions)	(4.7)	(25.6)	24.1
State	(0.9)	(5.7)	1.4
Total deferred provision (benefit)	(5.6)	(31.3)	25.5
	$361.2	$217.1	$282.5

Deferred income taxes reflect the net tax effects of net operating loss carryforwards 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 the Company's deferred tax assets and liabilities are as follows (in millions):

	December 31,	
	1998	1997
Deferred tax assets:		
Expense accruals	$126.4	$103.3
Net operating loss carryforwards	57.0	63.1
Fixed assets	25.8	25.4
Research collaboration expenses	23.8	23.1
Royalty obligation buyouts	8.8	9.8
Other	7.9	7.1
Total deferred tax assets	249.7	231.8
Valuation allowance	(69.0)	(79.7)
Net deferred tax assets	180.7	152.1
Deferred tax liabilities:		
Purchase of technology rights	(65.8)	(54.9)
Other	(20.9)	(3.9)
Total deferred tax liabilities	(86.7)	(58.8)
	$ 94.0	$ 93.3

The net change in the valuation allowance for deferred tax assets during the year ended December 31, 1998 was a $10.7 million reduction.

At December 31, 1998, the Company had operating loss carryforwards available to reduce future federal taxable income of which $64.1 million expire in 2008 and $81.9 million expire in 2009. These operating loss carryforwards relate to the acquisition of a company. Utilization of these operating loss carryforwards is limited to approximately $16 million per year.

The provision for income taxes varies from income taxes provided based on the federal statutory rate as follows:

	Years ended December 31,		
	1998	1997	1996
Statutory rate applied to income before income taxes	35.0%	35.0%	35.0%
Benefit of Puerto Rico operations, net of Puerto Rico income taxes	(3.2)%	(7.3)%	(6.8)%
Utilization of tax credits, primarily research and experimentation	(2.4)%	(2.9)%	(1.1)%
Other, net	0.1%	0.4%	2.3%
	29.5%	25.2%	29.4%

Income taxes paid during the years ended December 31, 1998, 1997 and 1996, totaled $251.3 million, $176.1 million and $246 million, respectively.

6. Stockholders' equity

Stockholder Rights agreement

On February 18, 1997, the Board of Directors of the Company redeemed the rights under the Company's former common stock rights plan and declared and distributed a dividend of one preferred share purchase right (a "Right") for each then outstanding share of common stock of the Company and authorized the distribution of one Right with respect to each subsequently issued share of common stock. The Rights and the redemption price were payable to stockholders of record on March 21, 1997.

Each Right entitles a stockholder to buy one two-thousandth of a share of Series A Junior Participating Preferred Stock of the Company at an exercise price of $112.50, after giving effect to the two-for-one stock split in the form of a 100% stock dividend to be distributed by the Company on February 26, 1999 (see Note 11). The Rights will expire on March 21, 2007.

Under certain circumstances, if an acquiring person or group acquires 10% or more of the Company's outstanding common stock, an exercisable Right will entitle its holder (other than the acquirer) to buy shares of common stock of the Company having a market value of two times the exercise price of one Right. However, in limited circumstances approved by the outside directors of the Board, a stockholder who enters into an acceptable standstill agreement may acquire up to 20% of the outstanding shares without triggering the Rights. If an acquirer acquires at least 10%, but less than 50%, of the Company's common stock, the Board may exchange each Right (other than those of the acquirer) for one share of common stock per Right. In addition, under certain circumstances, if the Company is involved in a merger or other business combination where it is not the surviving corporation, an exercisable Right will entitle its holder to buy shares of common stock of the acquiring company having a market value of two times the exercise price of one Right. The Company may redeem the Rights at $.0005 per Right at any time prior to the public announcement that a 10% position has been acquired.

Stock repurchase program

The Company has a stock repurchase program primarily to offset the dilutive effect of its employee stock option and stock purchase plans. Stock repurchased under the program is retired. In October 1997, the Board of Directors authorized the Company to repurchase up to $1 billion of common stock through December 31, 1998. The Company completed repurchases under this authorization during 1998. In October 1998, the Board of Directors authorized the repurchase of up to an additional $1 billion of common stock through December 31, 1999. As of December 31, 1998, $800 million was available for repurchase.

Other comprehensive income/(loss)

As of January 1, 1998, the Company adopted SFAS No. 130, "Reporting Comprehensive Income". SFAS No. 130 establishes new rules for the reporting and display of comprehensive income and its components. SFAS No. 130 requires unrealized gains and losses on the Company's available-for-sale securities and foreign currency translation adjustments to be included in other comprehensive income/(loss).

Information regarding the components of accumulated other comprehensive income/(loss) are as follows (in millions):

	Unrealized Gains/(Losses) on Securities	Foreign Currency Translation	Accumulated Other Comprehensive Income/(Loss)
Balance at December 31, 1997.....	$ (1.1)	$(21.0)	$(22.1)
Current year other comprehensive income.....	9.1	9.0	18.1
Balance at December 31, 1998.....	$ 8.0	$(12.0)	$ (4.0)

Information regarding the income tax effects for items of other comprehensive income/(loss) are as follows (in millions):

	Before-Tax Amount	Tax Benefit/ (Expense)	After-Tax Amount
For the year ended December 31, 1996:			
Foreign currency translation adjustments.....	$ 0.9	$ --	$ 0.9
Other comprehensive income.....	$ 0.9	$ --	$ 0.9
For the year ended December 31, 1997:			
Net unrealized losses on available-for-sale securities....	$ (1.8)	$ 0.7	$ (1.1)
Foreign currency translation adjustments.....	(18.7)	--	(18.7)
Other comprehensive loss.....	$(20.5)	$ 0.7	$(19.8)
For the year ended December 31, 1998:			
Unrealized losses on available-for-sale securities.....	$ (1.8)	$ 0.7	$ (1.1)
Less: Reclassification adjustments for losses realized in net income.....	(15.8)	5.6	(10.2)
Net unrealized gains on available-for-sale securities.....	14.0	(4.9)	9.1
Foreign currency translation adjustments.....	9.0	--	9.0
Other comprehensive income.....	$ 23.0	$ (4.9)	$ 18.1

Other

In addition to common stock, the Company's authorized capital includes 5 million shares of preferred stock, $.0001 par value, of which 0.8 million shares have been designated Series A Junior Participating Preferred Stock. At December 31, 1998, no shares of preferred stock were issued or outstanding.

At December 31, 1998, the Company had reserved 119.5 million shares of its common stock which may be issued through its stock option and stock purchase plans and had reserved 0.8 million shares of preferred stock in connection with its preferred stock rights plan.

7. Employee stock option, stock purchase and defined contribution plans

Employee stock option plans

The Company's employee stock option plans provide for option grants designated as either nonqualified or incentive stock options. The options generally vest over a three to five year period and expire seven years from

the date of grant. Most employees are eligible to receive a grant of stock options periodically with the number of shares generally determined by the employee's salary grade, performance level and the stock price. In addition, certain management and professional level employees normally receive a stock option grant upon hire. In 1997, most employees received an additional stock option grant (the "Special Stock Options") in which all shares vest upon the earlier of: (i) five years from date of grant and (ii) the date on which the closing price of Amgen stock equals or exceeds $37.50 per share. The Special Stock Options vested in 1998. In December 1997, the Board of Directors of Amgen adopted the 1997 Special Non-Officer Equity Incentive Plan (the "1997 Plan") and 42 million shares are reserved for issuance thereunder. The terms of the 1997 Plan are substantially similar to the terms of the Company's Amended and Restated 1991 Equity Incentive Plan except that the 1997 Plan does not permit: (i) repricing of options; (ii) the granting of reload options and (iii) the granting of incentive stock options. As of December 31, 1998, the Company had 47.7 million shares of common stock available for future grant under its stock option plans.

Stock option information with respect to all of the Company's stock option plans follows (shares in millions):

		Exercise Price		
	Shares	Low	High	Weighted-Average
Balance unexercised at December 31, 1995...	65.9	$ 0.88	$29.44	$11.17
Granted	9.2	$25.75	$32.06	$28.00
Exercised	(13.0)	$ 1.13	$27.88	$ 7.46
Forfeited	(1.0)	$ 1.84	$30.94	$16.24
Balance unexercised at December 31, 1996...	61.1	$ 0.88	$32.06	$14.50
Granted	26.0	$23.25	$33.94	$27.28
Exercised	(14.3)	$ 0.88	$29.13	$ 9.18
Forfeited	(1.8)	$ 2.16	$32.75	$22.87
Balance unexercised at December 31, 1997...	71.0	$ 1.15	$33.94	$20.04
Granted	16.7	$23.56	$52.44	$33.07
Exercised	(21.2)	$ 1.15	$41.53	$16.27
Forfeited	(3.4)	$ 8.97	$37.03	$27.14
Balance unexercised at December 31, 1998...	63.1	$ 1.31	$52.44	$24.37

At December 31, 1998, 1997 and 1996, stock options to purchase 33.1 million, 30.1 million and 31.4 million shares were exercisable at weighted-average prices of $19.52, $13.67 and $10.26, respectively.

Fair value disclosures of employee stock options

Stock option grants are set at the closing price of the Company's common stock on the date of grant and the related number of shares granted are fixed at that point in time. Therefore, under the principles of APB Opinion No. 25, the Company does not recognize compensation expense associated with the grant of stock options. SFAS No. 123, "Accounting for Stock-Based Compensation," requires the use of option valuation models to provide supplemental information regarding options granted after 1994. Pro forma information regarding net income and earnings per share shown below was determined as if the Company had accounted for its employee stock options and shares sold under its stock purchase plan under the fair value method of that statement.

The fair value of the options was estimated at the date of grant using a Black-Scholes option pricing model with the following weighted-average assumptions for 1998, 1997 and 1996, respectively: risk-free

interest rates of 5.4%, 6.0% and 6.4%; dividend yields of 0%, 0% and 0%; volatility factors of the expected market price of the Company's common stock of 34%, 33% and 34%; and expected life of the options of 3.4 years, 3.7 years and 3.4 years. These assumptions resulted in weighted-average fair values of $10.21, $8.98 and $9.12 per share for stock options granted in 1998, 1997 and 1996, respectively.

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options. The Company's employee stock options have characteristics significantly different from those of traded options such as vesting restrictions and extremely limited transferability. In addition, the assumptions used in option valuation models (see above) are highly subjective, particularly the expected stock price volatility of the underlying stock. Because changes in these subjective input assumptions can materially affect the fair value estimate, in management's opinion, existing valuation models do not provide a reliable single measure of the fair value of its employee stock options.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized over the options' vesting periods. The pro forma effect on net income for 1998, 1997 and 1996 is not representative of the pro forma effect on net income in future years because it does not take into consideration pro forma compensation expense related to option grants made prior to 1995. Pro forma information in future years will reflect the amortization of a larger number of stock options granted in several succeeding years. In addition, the 1998 pro forma amounts were reduced due to the vesting in 1998 of the Special Stock Options which occurred substantially earlier than the expected life assumption used in the Black-Scholes option valuation model for such grants. The Company's pro forma information is as follows (in millions, except per share information):

	Years ended December 31,		
	1998	1997	1996
Pro forma net income	$735.9	$575.8	$631.5
Pro forma earnings per share:			
Basic	$ 1.44	$ 1.09	$ 1.19
Diluted	$ 1.40	$ 1.06	$ 1.13

Information regarding stock options outstanding as of December 31, 1998 is as follows (shares in millions):

	Options Outstanding			Options Exercisable	
Price Range	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life	Shares	Weighted-Average Exercise Price
Under $20.00	20.4	$13.46	2.5 years	17.8	$12.87
$20.00-$30.00	27.1	$27.41	5.4 years	14.6	$26.89
Over $30.00	15.6	$33.34	6.5 years	0.7	$35.02

Employee stock purchase plan

The Company has an employee stock purchase plan whereby, in accordance with Section 423 of the Internal Revenue Code, eligible employees may authorize payroll deductions of up to 10% of their salary to purchase shares of the Company's common stock at the lower of 85% of the fair market value of common stock on the first or last day of the offering period. During the years ended December 31, 1998, 1997 and 1996, employees purchased 0.5 million, 0.5 million and 0.4 million shares at prices of approximately $22.92, $23.00 and $23.11 per

share, respectively. At December 31, 1998, the Company had 8.7 million shares available for future issuance under this plan.

Defined contribution plans

The Company has defined contribution plans covering substantially all employees in the United States and its possessions. Under these plans, the Company makes certain amounts of matching contributions for those employees who elect to contribute to the plans and makes additional contributions based upon the compensation of eligible employees regardless of whether or not the employees contribute to the plans. In addition, the Company has other defined contribution plans covering certain officers of the Company and employees of its foreign affiliates. The Company's expense for its defined contribution plans totaled $26.7 million, $26.9 million and $21.4 million for the years ended December 31, 1998, 1997 and 1996, respectively.

8. Balance sheet accounts

Property, plant and equipment consisted of the following (in millions):

	December 31,	
	1998	1997
Land	$ 100.2	$ 70.1
Buildings and building improvements	685.0	491.0
Manufacturing equipment	142.6	81.4
Laboratory equipment	260.6	205.8
Furniture and office equipment	445.5	320.0
Leasehold improvements	48.3	58.8
Construction in progress	369.7	442.1
	2,051.9	1,669.2
Less accumulated depreciation and amortization	(601.7)	(483.0)
	$1,450.2	$1,186.2

Accrued liabilities consisted of the following (in millions):

	December 31,	
	1998	1997
Due to affiliated companies and corporate partners	$194.0	$232.5
Sales incentives, royalties and allowances	128.7	92.9
Employee compensation and benefits	124.9	87.8
Income taxes	96.4	98.7
Other	115.7	96.1
	$659.7	$608.0

9. Fair values of financial instruments

The carrying amounts of cash, cash equivalents, marketable securities and cost method equity investments approximated their fair values. Fair values of cash equivalents, marketable securities and cost method equity investments are based on quoted market prices.

The carrying amount of commercial paper approximated its fair value as of December 31, 1998. The fair values of debt securities at December 31, 1998 and 1997 were approximately $255 million and $276 million, respectively. The fair values of commercial paper and debt securities were estimated based on quoted market rates for instruments with similar terms and remaining maturities.

The fair value of the interest rate swap agreement was not significant based on the estimated amount that the counterparty would receive or pay to terminate the swap agreement taking into account current interest rates.

The fair values of the foreign currency forward contracts and purchased foreign currency option contracts were not significant based on the estimated amounts at which the contracts could be settled taking into account current market exchange rates.

10. Segment information

For the year ended December 31, 1998, the Company adopted SFAS No. 131, "Disclosure about Segments of an Enterprise and Related Information." Under this standard, the Company is required to provide enterprise-wide disclosures about revenues by product, revenues and long-lived assets by geographic area and revenues from major customers.

Revenues

Revenues consisted of the following (in millions):

	Years ended December 31,		
	1998	1997	1996
EPOGEN(R)	$1,382.0	$1,160.7	$1,071.9
NEUPOGEN(R)	1,116.6	1,055.7	1,016.3
Other product sales	15.8	3.4	--
Total product sales	2,514.4	2,219.8	2,088.2
Other revenues	203.8	181.2	151.6
Total revenues	$2,718.2	$2,401.0	$2,239.8

Geographic information

The Company sells NEUPOGEN(R) through its foreign affiliates in countries of the European Union, Canada and Australia. Information regarding revenues and long-lived assets attributable to the United States and to all foreign countries collectively is stated below. The geographic classification of product sales was based upon the location of the customer. The geographic classification of all other revenues was based upon the domicile of the entity from which the revenues were earned. Information is as follows (in millions):

	Years ended December 31,		
	1998	1997	1996
Revenues:			
United States and possessions	$2,441.6	$2,093.0	$1,939.4
Foreign countries	276.6	308.0	300.4
Total revenues	$2,718.2	$2,401.0	$2,239.8

	December 31,	
	1998	1997
Long-lived assets:		
United States and possessions	$1,688.4	$1,456.5

Foreign countries	91.1	84.9
Total long-lived assets	$1,779.5	$1,541.4

Major customers

Amgen uses wholesale distributors of pharmaceutical products as the principal means of distributing the Company's products to clinics, hospitals and pharmacies. The Company monitors the financial condition of its larger distributors and limits its credit exposure by setting appropriate credit limits and requiring collateral from certain customers. Sales to two large wholesalers accounted for more than 10% of the total revenues for the years ended December 31, 1998, 1997 and 1996. Sales to one wholesaler were $856.2 million, $580.9 million and $531 million for the years ended December 31, 1998, 1997 and 1996, respectively. Sales to another wholesaler were $366.5 million, $333.8 million and $313.6 million for the years ended December 31, 1998, 1997 and 1996, respectively. At December 31, 1998 and 1997, amounts due from three large wholesalers accounted for 54% and 50%, respectively, of gross trade receivables.

11. Subsequent event

On January 26, 1999, the Company's Board of Directors approved a two-for-one split of the common stock effected in the form of a 100 percent stock dividend on outstanding stock to be distributed on February 26, 1999, to stockholders of record on February 12, 1999. Accordingly, the accompanying consolidated financial statements have been retroactively restated to give recognition to such stock split.

12. Quarterly financial data (unaudited)
(in millions, except per share data):

1998 Quarter Ended	Dec. 31	Sept. 30	June 30	Mar. 31
Product sales	$694.6	$641.8	$611.2	$566.8
Gross margin from product sales	599.5	554.6	527.3	487.8
Net income	238.6(1)	221.0	216.3	187.3
Earnings per share:				
Basic	.47(1)	.43	.43	.37
Diluted	.45(1)	.42	.41	.35

1997 Quarter Ended	Dec. 31	Sept. 30	June 30	Mar. 31
Product sales	$564.3	$552.8	$566.7	$536.0
Gross margin from product sales	486.6	478.5	489.9	464.0
Net income	179.7	83.8(2)	200.5	180.3
Earnings per share:				
Basic	.34	.16(2)	.38	.34
Diluted	.33	.15(2)	.36	.32

(1) During the fourth quarter of 1998, the Company reduced by $23 million, or $.03 per share on a diluted basis, its spillover liability related to the arbitration proceedings with Johnson & Johnson (see Note 4, "Contingencies--Johnson & Johnson arbitrations").

(2) During the third quarter of 1997, the Company accrued a $157 million spillover liability which resulted in an after-tax charge of $96.4 million, or $.18 per share on a diluted basis, related to arbitration proceedings with Johnson & Johnson (see Note 4, "Contingencies--Johnson & Johnson arbitrations").

SCHEDULE II

AMGEN INC.

VALUATION ACCOUNTS

Years ended December 31, 1998, 1997 and 1996
(In millions)

	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Deductions	Balance at End of Period
Year ended December 31, 1998:				
Allowance for doubtful accounts....	$14.2	$3.6	$0.7	$17.1
Year ended December 31, 1997:				
Allowance for doubtful accounts....	$11.8	$2.8	$0.4	$14.2
Year ended December 31, 1996:				
Allowance for doubtful accounts....	$13.8	$2.9	$4.9	$11.8

Exhibit 10.1

AMGEN INC.

AMENDED AND RESTATED 1991 EQUITY INCENTIVE PLAN

1. PURPOSE.

(a) The purpose of the Amended and Restated 1991 Equity Incentive Plan (the "Plan") is to provide a means by which employees or directors of and consultants to Amgen Inc., a Delaware corporation (the "Company"), and its Affiliates, as defined in paragraph 1(b), directly, or indirectly through Trusts, may be given an opportunity to benefit from increases in value of the stock of the Company through the granting of (i) incentive stock options, (ii) nonqualified stock options, (iii) stock bonuses, and (iv) rights to purchase restricted stock, all as defined below.

(b) The word "Affiliate" as used in the Plan means any parent corporation or subsidiary corporation of the Company, as those terms are defined in Sections 424(e) and (f), respectively, of the Internal Revenue Code of 1986, as amended (the "Code").

(c) The Company, by means of the Plan, seeks to retain the services of persons now employed by or serving as directors or consultants to the Company, to secure and retain the services of persons capable of filling such positions, and to provide incentives for such persons to exert maximum efforts for the success of the Company.

(d) The Company intends that the rights issued under the Plan ("Stock Awards") shall, in the discretion of the Board of Directors of the Company (the "Board") or any committee to which responsibility for administration of the Plan has been delegated pursuant to paragraph 2(c), be either (i) stock options granted pursuant to Sections 5 or 6 hereof, including incentive stock options as that term is used in Section 422 of

the Code ("Incentive Stock Options"), or options which do not qualify as Incentive Stock Options ("Nonqualified Stock Options") (together hereinafter referred to as "Options"), or (ii) stock bonuses or rights to purchase restricted stock granted pursuant to Section 7 hereof.

(e) The word "Trust" as used in the Plan shall mean a trust created for the benefit of the employee, director or consultant, his or her spouse, or members of their immediate family. The word optionee shall mean the person to whom the option is granted or the employee, director or consultant for whose benefit the option is granted to a Trust, as the context shall require.

2. ADMINISTRATION.

(a) The Plan shall be administered by the Board unless and until the Board delegates administration to a committee, as provided in paragraph 2(c).

(b) The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(1) To determine from time to time which of the persons eligible under the Plan shall be granted Stock Awards; when and how Stock Awards shall be granted; whether a Stock Award will be an Incentive Stock Option, a Nonqualified Stock Option, a stock bonus, a right to purchase restricted stock, or a combination of the foregoing; the provisions of each Stock Award granted (which need not be identical), including the time or times when a person shall be permitted to purchase or receive stock pursuant to a Stock Award; and the number of shares with respect to which Stock Awards shall be granted to each such person.

(2) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for its administration. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Stock Award, in a manner and to the extent it shall deem necessary or expedient to make the

Plan fully effective.

(3) To amend the Plan as provided in Section 15.

(4) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company.

(c) The Board may delegate administration of the Plan to a committee composed of not fewer than two (2) members of the Board (the "Committee"). One or more of these members may be non-employee directors and outside directors, if required and as defined by the provisions of paragraphs 2(d) and 2(e). If administration is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board (except amendment of Section 6 or the options granted thereunder shall only be by action taken by the Board or a committee of one or more members of the Board to which such authority has been specifically delegated by the Board), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. Notwithstanding anything else in this paragraph 2(c) to the contrary, at any time the Board or the Committee may delegate to a committee of one or more members of the Board the authority to grant or amend options to all employees, directors or consultants or any portion or class thereof.

(d) The term "non-employee director" shall mean a member of the Board who (i) is not currently an officer of the Company or a parent or subsidiary of the Company (as defined in Rule 16a-1(f) promulgated by the Securities and Exchange Commission under Section 16 of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) or an employee of the Company or a parent or subsidiary of the Company; (ii) does not receive compensation from the Company or a parent or subsidiary of the Company for services rendered in any capacity other than as a member of the Board (including a consultant) in an amount required to be disclosed to the Company's stockholders under Rule 404 of Regulation S-K promulgated by the Securities and

Exchange Commission ("Rule 404"); (iii) does not possess an interest in any other transaction required to be disclosed under Rule 404; or (iv) is not engaged in a business relationship required to be disclosed under Rule 404, as all of these provisions are interpreted by the Securities and Exchange Commission under Rule 16b-3 promulgated under the Exchange Act.

(e) The term "outside director," as used in this Plan, shall mean an administrator of the Plan, whether a member of the Board or of any Committee to which responsibility for administration of the Plan has been delegated pursuant to paragraph 2(c), who is considered to be an "outside director" in accordance with the rules, regulations or interpretations of Section 162(m) of the Code.

(f) Any requirement that an administrator of the Plan be a "non-employee director" or "outside director" shall not apply if the Board or the Committee expressly declares that such requirement shall not apply.

3. SHARES SUBJECT TO THE PLAN.

(a) Subject to the provisions of Section 12 relating to adjustments upon changes in stock, the stock that may be issued pursuant to Stock Awards granted under the Plan shall not exceed in the aggregate Ninety Six Million (96,000,000) shares of the Company's $.0001 par value common stock (the "Common Stock"). If any Stock Award granted under the Plan shall for any reason expire or otherwise terminate without having been exercised in full, the Common Stock not purchased under such Stock Award shall again become available for the Plan. Shares repurchased by the Company pursuant to any repurchase rights reserved by the Company pursuant to the Plan shall not be available for subsequent issuance under the Plan.

(b) The Common Stock subject to the Plan may be unissued shares or reacquired shares, bought on the market or otherwise.

(c) An Incentive Stock Option may be granted to an eligible person under the Plan only if the aggregate fair market

value (determined at the time the Incentive Stock Option is granted) of the Common Stock with respect to which incentive stock options (as defined by the Code) are exercisable for the first time by such optionee during any calendar year under all such plans of the Company and its Affiliates does not exceed one hundred thousand dollars ($100,000). If it is determined that an entire Option or any portion thereof does not qualify for treatment as an Incentive Stock Option by reason of exceeding such maximum, such Option or the applicable portion shall be considered a Nonqualified Stock Option.

4. ELIGIBILITY.

(a) Incentive Stock Options may be granted only to employees (including officers) of the Company or its Affiliates. A director of the Company shall not be eligible to receive Incentive Stock Options unless such director is also an employee of the Company or any Affiliate. Stock Awards other than Incentive Stock Options may be granted to employees (including officers) or directors of or consultants to the Company or any Affiliate or to Trusts of any such employee, director or consultant.

(b) A director shall in no event be eligible for the benefits of the Plan (other than from a Director NQSO under Section 6 of the Plan) unless and until such director is expressly declared eligible to participate in the Plan by action of the Board or the Committee, and only if, at any time discretion is exercised by the Board or the Committee in the selection of a director as a person to whom Stock Awards may be granted, or in the determination of the number of shares which may be covered by Stock Awards granted to a director, the Plan complies with the requirements of Rule 16b-3 promulgated under the Exchange Act, as from time to time in effect. The Board shall otherwise comply with the requirements of Rule 16b-3 promulgated under the Exchange Act, as from time to time in effect. Notwithstanding the foregoing, the restrictions set forth in this paragraph 4(b) shall not apply if the Board or

Committee expressly declares that such restrictions shall not apply .

(c) No person shall be eligible for the grant of an Incentive Stock Option under the Plan if, at the time of grant, such person owns (or is deemed to own pursuant to Section 424(d) of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or of any of its Affiliates unless the exercise price of such Incentive Stock Option is at least one hundred and ten percent (110%) of the fair market value of the Common Stock at the date of grant and the Incentive Stock Option is not exercisable after the expiration of five (5) years from the date of grant.

(d) Stock Awards shall be limited to a maximum of 1,000,000 shares of Common Stock per person per calendar year.

5. TERMS OF DISCRETIONARY STOCK OPTIONS.

An option granted pursuant to this Section 5 (a "Discretionary Stock Option") shall be in such form and shall contain such terms and conditions as the Board or the Committee shall deem appropriate. The provisions of separate Options need not be identical, but each Option shall include (through incorporation of provisions hereof by reference in the Option or otherwise) the substance of each of the following provisions:

(a) No Option shall be exercisable after the expiration of ten (10) years from the date it was granted .

(b) The exercise price of each Incentive Stock Option and each Nonqualified Stock Option shall be not less than one hundred percent (100%) of the fair market value of the Common Stock subject to the Option on the date the Option is granted.

(c) The purchase price of Common Stock acquired pursuant to an Option shall be paid, to the extent permitted by applicable statutes and regulations, either: (i) in cash at the time the Option is exercised; or (ii) at the discretion of the Board or the Committee, either at the time of grant or exercise of the Option (A) by delivery to the Company of shares of Common

Stock that have been held for the period required to avoid a charge to the Company's reported earnings and valued at the fair market value on the date of exercise, (B) according to a deferred payment or other arrangement with the person to whom the Option is granted or to whom the Option is transferred pursuant to paragraph 5(d), or (C) in any other form of legal consideration that may be acceptable to the Board or the Committee in their discretion; including but not limited to payment of the purchase price pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board which results in the receipt of cash (or a check) by the Company before Common Stock is issued or the receipt of irrevocable instruction to pay the aggregate exercise price of the Company from the sales proceeds before Common Stock is issued.

In the case of any deferred payment arrangement, interest shall be payable at least annually and shall be charged at not less than the minimum rate of interest necessary to avoid the treatment as interest, under any applicable provisions of the Code, of any amounts other than amounts stated to be interest under the deferred payment arrangement.

(d) An Option granted to a natural person shall be exercisable during the lifetime of such person only by such person, provided that such person during such person's lifetime may designate a Trust to be such person's beneficiary with respect to any Incentive Stock Options granted after February 25, 1992 and with respect to any Nonqualified Stock Options, and such beneficiary shall, after the death of the person to whom the Option was granted, have all the rights that such person has while living, including the right to exercise the Option. In the absence of such designation, after the death of the person to whom the Option is granted, the Option shall be exercisable by the person or persons to whom the optionee's rights under such Option pass by will or by the laws of descent and distribution.

(e) The total number of shares of Common Stock subject to an Option may, but need not, be allotted in periodic

installments (which may, but need not, be equal). From time to time during each of such installment periods, the Option may become exercisable ("vest") with respect to some or all of the shares allotted to that period, and may be exercised with respect to some or all of the shares allotted to such period and/or any prior period as to which the Option was not fully exercised. During the remainder of the term of the Option (if its term extends beyond the end of the installment periods), the Option may be exercised from time to time with respect to any shares then remaining subject to the Option. The provisions of this paragraph 5(e) are subject to any Option provisions governing the minimum number of shares as to which an Option may be exercised.

(f) The Company may require any optionee, or any person to whom an Option is transferred under paragraph 5(d), as a condition of exercising any such Option: (i) to give written assurances satisfactory to the Company as to such person's knowledge and experience in financial and business matters and/or to employ a purchaser representative who has such knowledge and experience in financial and business matters, and that such person is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Option; and (ii) to give written assurances satisfactory to the Company stating that such person is acquiring the Common Stock subject to the Option for such person's own account and not with any present intention of selling or otherwise distributing the Common Stock. These requirements, and any assurances given pursuant to such requirements, shall be inoperative if: (x) the issuance of the shares upon the exercise of the Option has been registered under a then currently effective registration statement under the Securities Act of 1933, as amended (the "Securities Act"); or (y) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities law.

(g) An Option shall terminate three (3) months after

termination of the optionee's employment or relationship as a consultant or director with the Company or an Affiliate, unless: (i) such termination is due to the optionee's permanent and total disability, within the meaning of Section 422(c)(6) of the Code, in which case the Option may, but need not, provide that it may be exercised at any time within one (1) year following such termination of employment or relationship as a consultant or director; (ii) the optionee dies while in the employ of or while serving as a consultant or director to the Company or an Affiliate, or within not more than three (3) months after termination of such employment or relationship as a consultant or director, in which case the Option may, but need not, provide that it may be exercised at any time within eighteen (18) months following the death of the optionee by the person or persons to whom the optionee's rights under such Option pass by will or by the laws of descent and distribution; or (iii) the Option by its term specifies either (A) that it shall terminate sooner than three (3) months after termination of the optionee's employment or relationship as a consultant or director with the Company or an Affiliate; or (B) that it may be exercised more than three (3) months after termination of the optionee's employment or relationship as a consultant or director with the Company or an Affiliate. This paragraph 5(g) shall not be construed to extend the term of any Option or to permit anyone to exercise the Option after expiration of its term, nor shall it be construed to increase the number of shares as to which any Option is exercisable from the amount exercisable on the date of termination of the optionee's employment or relationship as a consultant or director.

(h) The Option may, but need not, include a provision whereby the optionee may elect at any time during the term of the optionee's employment or relationship as a consultant or director with the Company or any Affiliate to exercise the Option as to any part or all of the shares subject to the Option prior to the stated vesting dates of the Option. Any shares so purchased from any unvested installment or Option may be subject

to a repurchase right in favor of the Company or to any other restriction the Board or the Committee determines to be appropriate.

(i) To the extent provided by the terms of an Option, each optionee may satisfy any federal, state or local tax withholding obligation relating to the exercise of such Option by any of the following means or by a combination of such means: (i) tendering a cash payment; (ii) authorizing the Company to withhold from the shares of the Common Stock otherwise issuable to the optionee as a result of the exercise of the Option a number of shares having a fair market value less than or equal to the amount of the withholding tax obligation; or (iii) delivering to the Company owned and unencumbered shares of the Common Stock having a fair market value less than or equal to the amount of the withholding tax obligation.

(j) Without in any way limiting the authority of the Board or Committee to make or not to make grants of Discretionary Stock Options under this Section 5, the Board or Committee shall have the authority (but not an obligation) to include as part of any Option agreement a provision entitling the optionee to a further Option (a "Re-Load Option") in the event the optionee exercises the Option evidenced by the Option agreement, in whole or in part, by surrendering other shares of Common Stock in accordance with this Plan and the terms and conditions of the Option agreement. Any such Re-Load Option (i) shall be for a number of shares equal to the number of shares surrendered as part or all of the exercise price of such Option; (ii) shall have an expiration date which is the same as the expiration date of the Option the exercise of which gave rise to such Re-Load Option; and (iii) shall have an exercise price which is equal to one hundred percent (100%) of the fair market value of the Common Stock subject to the Re-Load Option on the date of exercise of the original Option or, in the case of a Re-Load Option which is an Incentive Stock Option and which is granted to a 10% stockholder (as defined in paragraph 4(c)), shall have an exercise price which is equal to one hundred and

ten percent (110%) of the fair market value of the Common Stock subject to the Re-Load Option on the date of exercise of the original Option.

Any such Re-Load Option may be an Incentive Stock Option or a Nonqualified Stock Option, as the Board or Committee may designate at the time of the grant of the original Option, provided, however, that the designation of any Re-Load Option as an Incentive Stock Option shall be subject to the one hundred thousand dollars ($100,000) annual limitation on exercisability of Incentive Stock Options described in paragraph 3(c) of the Plan and in Section 422(d) of the Code. There shall be no Re-Load Option on a Re-Load Option. Any such Re-Load Option shall be subject to the availability of sufficient shares under paragraph 3(a) and shall be subject to such other terms and conditions as the Board or Committee may determine.

6. TERMS OF NON-DISCRETIONARY OPTIONS

(a) On January 27 of each year, each person who is at that time an Eligible Director of the Company, (as defined in paragraph 6(k)), shall automatically be granted under the Plan, without further action by the Company, the Board, or the Company's stockholders, a Nonqualified Stock Option (a "Director NQSO") to purchase eight thousand (8,000) shares of Common Stock on the terms and conditions set forth herein. An Eligible Director may designate that such Director NQSO be granted in the name of a Trust instead of in the name of such Eligible Director. The Director NQSO shall be on the terms and conditions set forth herein and should the date of grant set forth above be a Saturday, Sunday or legal holiday, such grant shall be made on the next business day.

(b) Each person who, after January 27 of any year and prior to November 1 of any year, becomes an Eligible Director, shall, upon the date such person becomes an Eligible Director, automatically be granted under the Plan, without further action by the Company, the Board, or the Company's stockholders, a Director NQSO to purchase thirty thousand (30,000) shares of

Common Stock on the terms and conditions set forth herein. An Eligible Director may designate that such Director NQSO be granted in the name of a Trust instead of in the name of such Eligible Director. The Director NQSO shall be on the terms and conditions set forth herein and should the date of grant set forth above be a Saturday, Sunday or legal holiday, such grant shall be made on the next business day.

(c) Each Director NQSO granted pursuant to this Section 6 (or any Director Re-Load Option granted pursuant to paragraph 6(j)) shall be in such form and shall contain such terms and conditions as the Board or the Committee shall deem appropriate. The provisions of separate Director NQSO's need not be identical, but each Director NQSO shall include (through incorporation of provisions hereof by reference in the Director NQSO or otherwise) the substance of each of the following provisions as set forth in paragraphs 6(d) through 6(j), inclusive.

(d) The term of each Director NQSO shall be ten (10) years from the date it was granted .

(e) The exercise price of each Director NQSO shall be one hundred percent (100%) of the fair market value of the Common Stock subject to such Director NQSO on the date such Director NQSO is granted.

(f) The purchase price of Common Stock acquired pursuant to a Director NQSO shall be paid, to the extent permitted by applicable statutes and regulations, either (i) in cash at the time the Director NQSO is exercised; (ii) by delivery to the Company of shares of Common Stock that have been held for the period required to avoid a charge to the Company's reported earnings and valued at their fair market value on the date of exercise; or (iii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board which results in the receipt of cash (or a check) by the Company before Common Stock is issued or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds before Common Stock is issued.

(g) A Director NQSO shall be exercisable during the lifetime of the Eligible Director with respect to whom it was granted only by the person to whom it was granted (whether the Eligible Director or a Trust), provided that such person during the Eligible Director's lifetime may designate a Trust to be a beneficiary with respect to the Director NQSO, and such beneficiary shall, after the death of the Eligible Director to whom the Director NQSO was granted, have all of the rights designated for such beneficiary. In the absence of such designation, after the death of the Eligible Director with respect to whom the Director NQSO was granted, if such Director NQSO was granted to the Eligible Director, the Director NQSO shall be exercisable by the person or persons to whom the optionee's rights under such option pass by will or by the laws of descent and distribution.

(h) A Director NQSO shall not vest with respect to an Eligible Director, or the affiliate of such Eligible Director, as the case may be, (i) unless the Eligible Director, has, at the date of grant, provided three (3) years of prior continuous service as an Eligible Director, or (ii) until the date upon which such Eligible Director has provided one year of continuous service as an Eligible Director following the date of grant of such Director NQSO, whereupon such Director NQSO shall become fully vested and exercisable in accordance with its terms.

(i) The Company may require any optionee under this Section 6, or any person to whom a Director NQSO is transferred under paragraph 6(g), as a condition of exercising any such option: (i) to give written assurances satisfactory to the Company as to such person's knowledge and experience in financial and business matters and/or to employ a purchaser representative who has such knowledge and experience in financial and business matters, and that such person is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Director NQSO; and (ii) to give written assurances satisfactory to the Company stating that such person is acquiring the Common Stock

subject to the Director NQSO for such person's own account and not with any present intention of selling or otherwise distributing the stock. These requirements, and any assurances given pursuant to such requirements, shall be inoperative if (i) the issuance of the shares upon the exercise of the Director NQSO has been registered under a then currently effective registration statement under the Securities Act of 1933, as amended (the "Securities Act"), or (ii), as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws .

(j) Subject to the last sentence of this paragraph 6(j), each Director NQSO shall include a provision entitling the optionee to a further Nonqualified Stock Option (a "Director Re-Load Option") in the event the optionee exercises the Director NQSO evidenced by the Director NQSO grant, in whole or in part, by surrendering other shares of Common Stock in accordance with the Plan and the terms of the Director NQSO grant. Any such Director Re-Load Option (i) shall be for a number of shares equal to the number of shares surrendered as part or all of the exercise price of the original Director NQSO; (ii) shall have an expiration date which is the same as the expiration date of the original Director NQSO; and (iii) shall have an exercise price which is equal to one hundred percent (100%) of the fair market value of the Common Stock subject to the Director Re-Load Option on the date of exercise of the original Director NQSO. Any such Director Re-Load Option shall be subject to the availability of sufficient shares under paragraph 3(a). There shall be no Director Re-Load Option on a Director Re-Load Option. Notwithstanding anything else in the Plan to the contrary, this paragraph 6(j) shall be of no force and effect from and after June 23, 1998.

(k) For purposes of this Section 6, the term "Eligible Director" shall mean a member of the Board who is not an employee of the Company or any Affiliate, and the term "affiliate" shall mean a person that directly or indirectly

controls, is controlled by, or is under common control with, the Eligible Director.

7. TERMS OF STOCK BONUSES AND PURCHASES OF RESTRICTED STOCK.

Each stock bonus or restricted stock purchase agreement shall be in such form and shall contain such terms and conditions as the Board or the Committee shall deem appropriate. The terms and conditions of stock bonus or restricted stock purchase agreements may change from time to time, and the terms and conditions of separate agreements need not be identical, but each stock bonus or restricted stock purchase agreement shall include (through incorporation of provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions as appropriate:

(a) The purchase price under each stock purchase agreement shall be such amount as the Board or Committee shall determine and designate in such agreement. Notwithstanding the foregoing, the Board or the Committee may determine that eligible participants in the Plan may be awarded stock pursuant to a stock bonus agreement in consideration for past services actually rendered to the Company or for its benefit.

(b) No rights under a stock bonus or restricted stock purchase agreement shall be assignable by any participant under the Plan, either voluntarily or by operation of law, except where such assignment is required by law or expressly authorized by the terms of the applicable stock bonus or restricted stock purchase agreement.

(c) The purchase price of stock acquired pursuant to a stock purchase agreement shall be paid either: (i) in cash at the time of purchase; (ii) at the discretion of the Board or the Committee, according to a deferred payment or other arrangement with the person to whom the Common Stock is sold; or (iii) in any other form of legal consideration that may be acceptable to the Board or the Committee in their discretion; including but not limited to payment of the purchase price pursuant to a

program developed under Regulation T as promulgated by the Federal Reserve Board which results in the receipt of cash (or a check) by the Company before Common Stock is issued or the receipt of irrevocable instruction to pay the aggregate exercise price of the Company from the sales proceeds before Common Stock is issued. Notwithstanding the foregoing, the Board or the Committee to which administration of the Plan has been delegated may award Common Stock pursuant to a stock bonus agreement in consideration for past services actually rendered to the Company or for its benefit.

(d) Shares of Common Stock sold or awarded under the Plan may, but need not, be subject to a repurchase option in favor of the Company in accordance with a vesting schedule to be determined by the Board or the Committee.

(e) In the event a person ceases to be an employee of or ceases to serve as a director or consultant to the Company or an Affiliate, the Company may repurchase or otherwise reacquire any or all of the shares of Common Stock held by that person which have not vested as of the date of termination under the terms of the stock bonus or restricted stock purchase agreement between the Company and such person.

8. CANCELLATION AND RE-GRANT OF OPTIONS.

The Board or the Committee shall have the authority to effect, at any time and from time to time, with the consent of the affected holders of Options, (i) the repricing of any outstanding Options under the Plan and/or (ii) the cancellation of any outstanding Options under the Plan and the grant in substitution therefor of new Options under the Plan covering the same or different numbers of shares of Common Stock, but having an exercise price per share not less than one hundred percent (100%) of the fair market value per share of Common Stock on the new grant date or, in the case of a 10% stockholder (as defined in paragraph 4(c)), not less than one hundred and ten percent (110%) of the fair market value per share of Common Stock on the new grant date.

9. COVENANTS OF THE COMPANY.

(a) During the terms of the Stock Awards granted under the Plan, the Company shall keep available at all times the number of shares of Common Stock required to satisfy such Stock Awards up to the number of shares of Common Stock authorized under the Plan .

(b) The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to issue and sell shares of Common Stock under the Stock Awards granted under the Plan; provided, however, that this undertaking shall not require the Company to register under the Securities Act either the Plan, any Stock Award granted under the Plan or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained.

10. USE OF PROCEEDS FROM COMMON STOCK.

Proceeds from the sale of Common Stock pursuant to Stock Awards granted under the Plan shall constitute general funds of the Company.

11. MISCELLANEOUS.

(a) The Board or Committee shall have the power to accelerate the time during which a Stock Award may be exercised or the time during which a Stock Award or any part thereof will vest, notwithstanding the provisions in the Stock Award stating the time during which it may be exercised or the time during which it will vest. Each Discretionary Stock Option providing for vesting pursuant to paragraph 5(e) shall also provide that

if the employee's employment or a director's or consultant's affiliation with the Company is terminated by reason of death or disability (within the meaning of Title II or XVI of the Social Security Act and as determined by the Social Security Administration), the vesting schedule of Discretionary Stock Options granted to such employee, director or consultant or to the Trusts of such employee, director or consultant shall be accelerated by twelve months for each full year the employee has been employed by or the director or consultant has been affiliated with the Company. Discretionary Stock Options granted under the Plan that are outstanding on February 25, 1992, shall be amended to include the accelerated vesting upon death provided for in the preceding sentence of this paragraph 11(a) and Discretionary Stock Options granted under the Plan that are outstanding on June 18, 1996, shall be amended to include the accelerated vesting upon disability provided for in the preceding sentence of this paragraph 11(a).

(b) Neither an optionee nor any person to whom an Option is transferred under the provisions of the Plan shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares subject to such Option unless and until such person has satisfied all requirements for exercise of the Option pursuant to its terms.

(c) Nothing in the Plan or any instrument executed or Stock Award granted pursuant thereto shall confer upon any eligible employee, consultant, director, optionee or holder of Stock Awards under the Plan any right to continue in the employ of the Company or any Affiliate or to continue acting as a consultant or director or shall affect the right of the Company or any Affiliate to terminate the employment or consulting relationship or directorship of any eligible employee, consultant, director, optionee or holder of Stock Awards under the Plan with or without cause. In the event that a holder of Stock Awards under the Plan is permitted or otherwise entitled to take a leave of absence, the Company shall have the unilateral right to (i) determine whether such leave of absence

will be treated as a termination of employment or relationship as consultant or director for purposes hereof, and (ii) suspend or otherwise delay the time or times at which exercisability or vesting would otherwise occur with respect to any outstanding Stock Awards under the Plan.

12. ADJUSTMENTS UPON CHANGES IN COMMON STOCK.

If any change is made in the Common Stock subject to the Plan, or subject to any Stock Award granted under the Plan (through merger, consolidation, reorganization, recapitalization, stock dividend, dividend in property other than cash, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure or other transaction not involving the receipt of consideration by the Company), the Plan and outstanding Stock Awards will be appropriately adjusted in the class(es) and maximum number of shares subject to the Plan, the maximum number of shares which may be granted to a participant in a calendar year, the class(es) and number of shares and price per share of stock subject to outstanding Stock Awards, and the number of shares of Common Stock to be granted as provided for in paragraphs 6(a) and 6(b). Such adjustment shall be made by the Board or the Committee, the determination of which shall be final, binding and conclusive. (The conversion of any convertible securities of the Company shall not be treated as a "transaction not involving the receipt of consideration".)

13. CHANGE OF CONTROL.

(a) Notwithstanding anything to the contrary in this Plan, in the event of a Change in Control (as hereinafter defined), then, to the extent permitted by applicable law: (i) the time during which Stock Awards become vested shall automatically be accelerated so that the unvested portions of all Stock Awards shall be vested prior to the Change in Control and (ii) the time during which the Options may be exercised shall automatically be accelerated to prior to the Change in

Control. Upon and following the acceleration of the vesting and exercise periods, at the election of the holder of the Stock Award, the Stock Award may be: (x) exercised (with respect to Options) or, if the surviving or acquiring corporation agrees to assume the Stock Awards or substitute similar stock awards, (y) assumed; or (z) replaced with substitute stock awards. Options not exercised, substituted or assumed prior to or upon the Change in Control shall be terminated.

(b) For purposes of the Plan, a "Change of Control" shall be deemed to have occurred at any of the following times:

(i) upon the acquisition (other than from the Company) by any person, entity or "group," within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (excluding, for this purpose, the Company or its affiliates, or any employee benefit plan of the Company or its affiliates which acquires beneficial ownership of voting securities of the Company), of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of fifty percent (50%) or more of either the then outstanding shares of Common Stock or the combined voting power of the Company's then outstanding voting securities entitled to vote generally in the election of directors; or

(ii) at the time individuals who, as of April 2, 1991, constitute the Board (the "Incumbent Board") cease for any reason to constitute at least a majority of the Board, provided that any person becoming a director subsequent to April 2, 1991, whose election, or nomination for election by the Company's stockholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board (other than an election or nomination of an individual whose initial assumption of office is in connection with an actual or threatened election contest relating to the election of the Directors of the Company, as such terms are used in Rule 14a-11 of Regulation 14A promulgated under the Exchange Act) shall be, for purposes of the Plan, considered as though such person were a member of the Incumbent Board; or

(iii) immediately prior to the consummation by the Company of a reorganization, merger, consolidation, (in each case, with respect to which persons who were the stockholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than fifty percent (50%) of the combined voting power entitled to vote generally in the election of directors of the reorganized, merged or consolidated company's then outstanding voting securities) or a liquidation or dissolution of the Company or of the sale of all or substantially all of the assets of the Company; or

(iv) the occurrence of any other event which the Incumbent Board in its sole discretion determines constitutes a Change of Control.

14. QUALIFIED DOMESTIC RELATIONS ORDERS

(a) Anything in the Plan to the contrary notwithstanding, rights under Stock Awards may be assigned to an Alternate Payee to the extent that a QDRO so provides. (The terms "Alternate Payee" and "QDRO" are defined in paragraph 14(c) below.) The assignment of a Stock Award to an Alternate Payee pursuant to a QDRO shall not be treated as having caused a new grant. The transfer of an Incentive Stock Option to an Alternate Payee may, however, cause it to fail to qualify as an Incentive Stock Option. If a Stock Award is assigned to an Alternate Payee, the Alternate Payee generally has the same rights as the grantee under the terms of the Plan; provided however, that (i) the Stock Award shall be subject to the same vesting terms and exercise period as if the Stock Award were still held by the grantee, (ii) an Alternate Payee may not transfer a Stock Award and (iii) an Alternate Payee is ineligible for Re-Load Options described at paragraph 5(j) or Director Re-Load Options described at paragraph 6(j).

(b) In the event of the Plan administrator's receipt of a domestic relations order or other notice of adverse claim by an Alternate Payee of a grantee of a Stock Award, transfer of

the proceeds of the exercise of such Stock Award, whether in the form of cash, stock or other property, may be suspended. Such proceeds shall thereafter be transferred pursuant to the terms of a QDRO or other agreement between the grantee and Alternate Payee. A grantee's ability to exercise a Stock Award may be barred if the Plan administrator receives a court order directing the Plan administrator not to permit exercise.

(c) The word "QDRO" as used in the Plan shall mean a court order (i) that creates or recognizes the right of the spouse, former spouse or child (an "Alternate Payee") of an individual who is granted a Stock Award to an interest in such Stock Award relating to marital property rights or support obligations and (ii) that the administrator of the Plan determines would be a "qualified domestic relations order," as that term is defined in section 414(p) of the Code and section 206(d) of the Employee Retirement Income Security Act ("ERISA"), but for the fact that the Plan is not a plan described in section 3(3) of ERISA.

15. AMENDMENT OF THE PLAN.

(a) The Board at any time, and from time to time, may amend the Plan. However, except as provided in Section 12 relating to adjustments upon changes in the Common Stock, no amendment shall be effective unless approved by the stockholders of the Company within twelve (12) months before or after the adoption of the amendment, where the amendment will:

(i) increase the number of shares reserved for Stock Awards under the Plan;

(ii) modify the requirements as to eligibility for participation in the Plan (to the extent such modification requires stockholder approval in order for the Plan to satisfy the requirements of Section 422(b) of the Code); or

(iii) modify the Plan in any other way if such modification requires stockholder approval in order for the Plan to satisfy the requirements of Section 422(b) of the Code .

(b) The Board may in its sole discretion submit any

other amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of Section 162(m) of the Code and the regulations promulgated thereunder regarding the exclusion of performance-based compensation from the limit on corporate deductibility of compensation to certain executive officers.

(c) It is expressly contemplated that the Board may amend the Plan in any respect the Board deems necessary or advisable to provide optionees with the maximum benefits provided or to be provided under the provisions of the Code and the regulations promulgated thereunder relating to employee Incentive Stock Options and/or to bring the Plan and/or Options granted under it into compliance therewith.

(d) Rights and obligations under any Stock Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan, unless: (i) the Company requests the consent of the person to whom the Stock Award was granted; and (ii) such person consents in writing.

16. TERMINATION OR SUSPENSION OF THE PLAN.

(a) The Board may suspend or terminate the Plan at any time. Unless sooner terminated, the Plan shall terminate on December 31, 2000. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) Rights and obligations under any Stock Awards granted while the Plan is in effect shall not be impaired by suspension or termination of the Plan, except with the consent of the person to whom the Stock Award was granted.

17. EFFECTIVE DATE OF PLAN.

The Plan shall become effective as determined by the Board.

Exhibit 10.2

SIXTH AMENDMENT TO THE
AMGEN RETIREMENT AND SAVINGS PLAN
AS AMENDED AND RESTATED EFFECTIVE APRIL 1, 1996

The Amgen Retirement and Savings Plan as Amended and Restated Effective April 1, 1996, as amended (the "Plan") is hereby amended, effective January 1, 1999, as follows:

Section 9.1 of the Plan is amended to read in its entirety as follows:

"9.1 Immediate Distribution.

(a) Any distribution to an Alternate Payee of all or some portion of a Participant's Accounts pursuant to a qualified domestic relations order, shall be made as soon as reasonably practicable after the order is determined to be a QDRO, if:

(1) The QDRO specifies such time of distribution; or

(2) The Alternate Payee has consented in writing to such time of distribution.

(b) Notwithstanding the foregoing, in determining the award to an Alternate Payee under a QDRO, the award to the Alternate Payee shall be derived solely from a portion of the Participant's vested Accounts in the Plan as of the Valuation Date provided in the QDRO."

Section 9.3 of the Plan is amended to read in its entirety as follows:

"9.3 Freezing Participant Accounts. As soon as practicable after the date the Plan Administrator receives credible information that a qualified domestic relations order, pursuant to Code section 401(a)(13) and ERISA section 206(d)(3), may be forthcoming, the Plan Administrator shall freeze the relevant Participant's Accounts for a reasonable period of time to permit the Participant and/or Alternate Payee to obtain a domestic relations order. As soon as practicable after the date the Plan Administrator receives a domestic relations order, the Plan Administrator shall freeze the relevant Participant's Accounts for a period of up to 18 months to allow for a determination of whether the domestic relations order meets the requirements of a qualified domestic relations order as defined in Code section 414(p) and ERISA section 206(d)(3). To the extent that a

Participant's Accounts are frozen, no loans, withdrawals or distributions are permitted from such Accounts."

Section 9.5 of the Plan is amended to read in its entirety as follows:

"9.5 Distributions From Alternate Payee Accounts. Distributions to Alternate Payees from their Alternate Accounts shall be made as soon as reasonably practicable after the Plan Administrator's receipt of completed distribution forms provided by the Plan Administrator for this purpose."

To record this Sixth Amendment to the Plan as set forth herein, the Company has caused its authorized officer to execute this document this 20th day of October, 1998.

AMGEN INC.

By: George A. Vandeman

Title: Secretary

Exhibit 10.28

AMGEN INC.
CHANGE OF CONTROL SEVERANCE PLAN

AMGEN INC., a Delaware corporation (the "Company"), has adopted this Change of Control Severance Plan (the "Plan"), effective as of October 20, 1998, for the benefit of certain key employees of the Company.

The purposes of the Plan are as follows:

(1) To reinforce and encourage the continued attention and dedication of members of the Company's management to their assigned duties without the distraction arising from the possibility of a change of control of the Company;

(2) To enable and encourage the Company's management to focus their attention on obtaining the best possible deal for the Company's shareholders and to make an independent evaluation of all possible transactions, without being influenced by their personal concerns regarding the possible impact of various transactions on the security of their jobs and benefits; and

(3) To provide severance benefits to any Participant (as defined below) who incurs a termination of employment under the circumstances described herein within a certain period following a Change of Control (as defined below).

1. Defined Terms. For purposes of the Plan, the following terms shall have the meanings indicated below:

(A) "Administration Committee" shall mean the committee which is responsible for administering the Plan, as described in Section 3 hereof.

(B) "Benefits Continuation Period" shall mean (i) with respect to each Group I Participant, the thirty-six (36) month period immediately following the Participant's Date of Termination (as defined below), (ii) with respect to each Group II Participant, the twenty-four (24) month period immediately following the Participant's Date of Termination, and (iii) with respect to each Group III Participant, the twelve (12) month period immediately following the Participant's Date of Termination.

(C) "Benefits Multiple" shall mean (i) with respect to each Group I Participant, three (3), (ii) with respect to each Group II Participant, two (2), and (iii) with respect to each Group III Participant, one (1).

(D) "Board" shall mean the Board of Directors of the Company.

(E) "Cause," with respect to any Participant, shall mean (i) the Participant's conviction of a felony, or (ii) the engaging by the Participant in conduct that constitutes willful gross neglect or willful gross misconduct in carrying out the Participant's duties, resulting, in either case, in material economic harm to the Company, unless the Participant believed in good faith that such conduct was in, or not contrary to, the best interests of the Company. For purposes of clause (ii) above, no act, or failure to act, on the Participant's part shall be deemed "willful" unless done, or omitted to be done, by the Participant not in good faith.

(F) A "Change of Control" of the Company shall be deemed to have occurred at any of the following times:

(i) upon the acquisition (other than from the Company) by any person, entity or "group," within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act (excluding, for this purpose, the Company or its affiliates, or any employee benefit plan of the Company or its affiliates which acquires beneficial ownership of voting securities of the Company), of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of fifty percent (50%) or more of either the then outstanding shares of common stock, par value $.0001, of the Company or the combined voting power of the Company's then outstanding voting securities entitled to vote generally in the election of directors; or

(ii) at the time individuals who, as of October 20, 1998, constitute the Board (the "Incumbent Board") cease for any reason to constitute at least a majority of the Board, provided that any person becoming a director subsequent to December 9, 1997, whose election, or nomination for election by the Company's stockholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board (other than an election or nomination of an individual whose initial assumption of office is in connection with an actual or threatened election contest relating to the election of the directors of the Company, as such terms are used in Rule 14a-11 of Regulation 14A promulgated under the Exchange Act) shall be, for purposes of the Plan, considered as though such person were a member of the Incumbent Board; or

(iii) immediately prior to the consummation by the Company of a reorganization, merger, consolidation, (in each case, with respect to which persons who were the stockholders of the Company immediately prior to such reorganization, merger or consolidation do not, immediately thereafter, own more than fifty percent (50%) of the combined voting power entitled to vote generally in the election of directors of the reorganized, merged or consolidated company's then outstanding voting securities) or a liquidation or dissolution of the Company or the sale of all or substantially all of the assets of the Company; or

(iv) the occurrence of any other event which the Incumbent Board in its sole discretion determines constitutes a Change of Control.

(G) "Change of Control Period" shall mean the period beginning on the date of a Change of Control and ending on the second anniversary of such Change of Control.

(H) "Code" shall mean the Internal Revenue Code of 1986, as amended from time to time.

(I) "Company" shall mean Amgen Inc., a Delaware corporation, and, except in determining under Section 1(F) hereof whether or not any Change of Control of the Company has occurred, shall include any successor to its business and/or assets.

(J) "Disability" shall be determined in accordance with the Company's long-term disability plan as in effect immediately prior to a Change of Control.

(K) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended from time to time.

(L) "Good Reason," with respect to any Participant, shall mean the occurrence (without the Participant's express written consent) of any of the following circumstances unless such circumstances are fully corrected (provided such circumstances are capable of correction) prior to the Participant's Date of Termination:

(i) any adverse and material alteration or diminution in the Participant's position, title or responsibilities as they existed immediately prior to the Change of Control or as the same may be increased from time to time thereafter;

(ii) the Company's reduction of the Participant's annual base salary or targeted bonus opportunity, in each case as in effect on the date hereof or as the same may be increased from time to time;

(iii) relocation of the Company's offices at which the Participant is employed which increases the Participant's daily commute by more than 100 miles on a round trip basis;

(iv) the Company's failure to pay to the Participant any portion of his or her current compensation or to pay to the Participant any portion of an installment of deferred compensation under any deferred compensation program of the Company, within seven (7) days of the date such compensation is due;

(v) the Company's failure to continue in effect any material compensation or benefit plan (including, without limitation, the Management Incentive Plan, the Amgen Retirement Savings Plan, the Amgen Supplemental Retirement Plan, and the Company's medical and dental care plans, disability income plans, stock option plans and other equity plans) in which the Participant participates immediately prior to the Change of

Control, unless an equitable arrangement (embodied in an ongoing substitute or alternative plan) has been made with respect to such plan, or the Company's failure to continue the Participant's participation therein (or in such substitute or alternative plan) on a basis not materially less favorable, in terms of the amount of benefits provided, the cost to the Participant and the level of the Participant's participation relative to other participants, as existed immediately prior to the Change of Control;

(vi) the Company's failure to obtain a satisfactory agreement from any successor to assume the Plan and the Company's obligations hereunder, as contemplated by Section 7.1(A) hereof; or

(vii) any purported termination of the Participant's employment that is not effected pursuant to a Notice of Termination satisfying the requirements of the Plan, which purported termination shall not be effective for purposes of the Plan.

A Participant's right to terminate his or her employment for Good Reason shall not be affected by the Participant's incapacity due to physical or mental illness. A Participant's continued employment shall not constitute consent to, or a waiver of rights with respect to, any circumstance constituting Good Reason hereunder.

(M) "Group I Participants" shall mean those senior executive-level staff members of the Company whom the Company has designated as members of the Amgen Operating Committee, as such committee shall be constituted immediately prior to a Change of Control. At or before the occurrence of a Change of Control, the Company shall notify the Group I Participants in writing of their status as Participants in the Plan.

(N) "Group II Participants" shall mean those senior management-level staff members of the Company at the level of Director or equivalent and above (i.e., those employees of the Company whose positions have been designated as Salary Grade E32 or Salary Grade EL4 and above) and who are not Group I Participants, as such group shall be constituted immediately prior to a Change of Control. At or before the occurrence of a Change of Control, the Company shall notify the Group II Participants in writing of their status as Participants in the Plan.

(O) "Group III Participants" shall mean those management-level staff members of the Company at the level of Associate Director or equivalent (i.e., those employees of the Company whose positions have been designated as Salary Grade E30, Salary Grade E31, Salary Grade EL2 or Salary Grade EL3), as such group shall be constituted immediately prior to a Change of Control. At or before the occurrence of a Change of Control, the Company shall notify the Group III Participants in writing of their status as Participants in the Plan.

(P) "Participants" shall mean, collectively, the Group I Participants, the Group II Participants, and the Group III Participants.

2. Effective Date and Term of Plan. The Plan shall be effective as of October 20, 1998 and shall continue in effect through December 31, 2001; provided, however, that commencing on December 31, 1999 and on each December 31 thereafter, the term of the Plan shall automatically be extended for one additional year by adding one year to the last day of the term as then in effect unless, not later than September 30 of such year, the Company shall have given notice to the Participants that the term of the Plan will not be extended; provided, further, that if a Change of Control occurs during the original or any extended term of the Plan, the term of the Plan shall continue in effect for a period of not less than thirty-six (36) months beyond the month in which such Change of Control occurred.

3. Administration. (A) The Plan shall be interpreted, administered and operated by the Compensation Committee of the Board, except that if the Compensation Committee determines that a Change of Control is likely to occur, the Compensation Committee shall appoint a person or group of persons who shall constitute the Administration Committee after the occurrence of the Change of Control, which Administration Committee shall have the power to interpret, administer and operate the Plan after the occurrence of the Change of Control. The Administration Committee shall have complete authority, in its sole discretion subject to the express provisions of the Plan, to determine who shall be a Participant, to interpret the Plan, to prescribe, amend and rescind rules and regulations relating to it, and to make all other determinations necessary or advisable for the administration of the Plan. The Administration Committee may delegate any of its duties hereunder to such person or persons from time to time as it may designate.

(B) All expenses and liabilities which members of the Administration Committee incur in connection with the administration of the Plan shall be borne by the Company. The Administration Committee may employ attorneys, consultants, accountants, appraisers, brokers, or other persons in connection with such administration, and the Administration Committee, the Company and the Company's officers and directors shall be entitled to rely upon the advice, opinions or valuations of any such persons. No member of the Compensation Committee, the Administration Committee or the Board shall be personally liable for any action, determination or interpretation made in good faith with respect to the Plan, and all members of the Compensation Committee, the Administration Committee and the Board shall be fully protected by the Company in respect of any such action, determination or interpretation.

4. Benefits Provided.

4.1 Termination After Change of Control. If a Participant's employment is terminated during a Change of Control Period (a) by the Company other than for Cause or Disability, or (b) by the Participant for Good Reason, the Company shall pay the Participant the amounts, and provide the Participant with the benefits, described in this Section 4.1:

(A) In lieu of any further salary payments to the Participant for periods subsequent to the Date of Termination and in lieu of any severance benefit otherwise payable to the Participant (other than accrued vacation and similar benefits otherwise

payable upon termination of employment pursuant to Company policies and programs), the Company shall pay to the Participant a lump sum cash payment (the "Cash Severance Payment") in an amount equal to the excess, if any, of

(I) the product of (x) the Participant's Benefits Multiple, and (y) the sum of (i) the Participant's annual base salary as in effect immediately prior to the Date of Termination or, if higher, as in effect immediately prior to the Change of Control, plus (ii) the Participant's targeted annual bonus for the year in which such Date of Termination occurs or, if higher, the Participant's average annual bonus for the three (3) years immediately prior to the Change of Control; over

(II) the aggregate value of the acceleration of vesting or exercisability of any unvested stock options held by the Participant under any of the Company's equity based plans as a result of or in connection with the Change of Control as such value is determined by the Accountants (as defined below) in accordance with the principles of Sections 280G(d)(3) and 280G(d)(4) of the Code and Question and Answer 24 of Proposed Treasury Regulation Section 1.280G-1 or any successor section of any successor regulation or statute.

(B) During the Benefits Continuation Period, the Company shall provide the Participant and his or her dependents with life, disability, accident and health insurance benefits substantially similar to those provided to the Participant and his or her dependents immediately prior to the Date of Termination or the date of the Change of Control, whichever is more favorable to the Participant; provided, however, that such benefits shall be provided on substantially the same terms and conditions and at the same cost to the Participant as in effect immediately prior to the Date of Termination or the date of the Change of Control, whichever is more favorable to the Participant; provided, further, that if the Participant becomes reemployed with another employer and is eligible to receive such benefits under another employer's plans, the Company's obligations under its plans and this Section 4.1(B) shall be secondary to the coverage provided by such other employer's plans during the Benefits Continuation Period, and any such benefits actually received by the Participant shall be reported to the Company. In the event that the Participant is ineligible under the terms of the Company's benefit plans to continue to be so covered, the Company shall provide the Participant with substantially equivalent coverage through other sources or will provide the Participant with a lump sum payment (determined on a present value basis using the interest rate provided in Section 1274(b)(2)(B) of the Code on the Date of Termination) in such amount that, after all income and employment taxes (but not any excise taxes) on that amount, shall be equal to the cost to the Participant of providing himself or herself such benefit coverage. At the termination of the benefits coverage under the first sentence of this Section 4.1(B), the Participant and his or her dependents shall be entitled to continuation coverage pursuant to Section 4980B of the Code, Sections 601-608 of the Employee Retirement Income Security Act of 1974, as amended, and under any other applicable law, to the extent

required by such laws, as if the Participant had terminated employment with the Company on the date such benefits coverage terminates.

(C) The Company shall pay to the Participant any earned but unpaid portion of the Participant's base salary as of the Date of Termination at the rate in effect at the time Notice of Termination is given, plus all other amounts to which the Participant is entitled under any compensation plan or practice of the Company at the time such payments are due.

(D) The Participant shall be fully vested in his or her accrued benefits under the Amgen Retirement Savings Plan and the Amgen Supplemental Retirement Plan, as applicable, and the Company shall provide the Participant with additional fully vested benefits under such plans in an amount equal to the benefits which the Participant would have accrued (based upon the amount of the contributions thereto by the Participant and the Company on the Participant's behalf, in each case immediately prior to the Date of Termination or, if more favorable to the Participant, immediately prior to the Change of Control) had he or she continued employment with the Company following his or her Date of Termination for that number of years equal to the Participant's Benefits Multiple; provided, however, that to the extent that the acceleration of vesting or enhanced accrual of such benefits would violate any applicable law or require the Company to accelerate the vesting of the accrued benefits of all participants in such plan or plans or to provide additional benefit accruals to such participants, the Company shall pay the Participant a lump-sum payment at the time specified in Section 4.3 hereof in an amount equal to the value of such benefits.

(E) In any situation where under applicable law the Company has the power to indemnify (or advance expenses to) the Participant in respect of any judgments, fines, settlements, loss, cost or expense (including attorneys' fees) of any nature related to or arising out of the Participant's activities as an agent, employee, officer or director of the Company or in any other capacity on behalf of or at the request of the Company, the Company shall promptly on written request, indemnify (and advance expenses to) the Participant to the fullest extent permitted by applicable law. Such agreement by the Company shall not be deemed to impair any other obligation of the Company respecting the Participant's indemnification otherwise arising out of this or any other agreement or promise of the Company or under any statute.

(F) For the four (4) year period immediately following the Date of Termination, the Company shall furnish each Participant who was a director and/or officer of the Company at any time prior to the Date of Termination with directors' and/or officers' liability insurance, as applicable, insuring the Participant against insurable events which occur or have occurred while the Participant was a director or officer of the Company, such insurance to have policy limits aggregating not less than the amount in effect immediately prior to the Change of Control, and otherwise to be in substantially the same form and to contain substantially the same terms, conditions and exceptions as the

liability issuance policies provided for officers and directors of the Company in force from time to time, provided, however, that if the aggregate annual premiums for such insurance at any time during such period exceed one hundred and fifty percent (150%) of the per annum rate of premium currently paid by the Company for such insurance, then the Company shall provide the maximum coverage that will then be available at an annual premium equal to one hundred and fifty percent (150%) of such rate.

(G) If it shall be determined by the Accountants that any payment, distribution or acceleration of vesting or exercisability of any stock option or other right with respect to a Participant who is a "disqualified individual" within the meaning of Section 280G(c) of the Code, whether paid, distributed or accelerated pursuant to the terms of the Plan or otherwise (the "Payment"), would be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then the Participant shall be entitled to receive from the Company an additional lump sum cash payment (the "20% Payment") in an amount equal to twenty percent (20%) of the amount of the Participant's "excess parachute payment" within the meaning of Section 280G(b)(1) of the Code.

4.2 (A) All determinations required to be made under Section 4.1 hereof, including the valuation of the acceleration of the Participant's stock options and whether the Cash Severance Payment and the 20% Payment are required to be made and the amount of such payments, and the assumptions to be utilized in arriving at such determinations shall be made by the Accountants (as defined below). The Accountants shall provide the Participant and the Company with detailed supporting calculations with respect to such determinations at least fifteen (15) business days prior to the date of the Change of Control (or as soon as practicable in the event that the Accountants have less than fifteen (15) business days advance notice of the potential occurrence of the Change of Control) with respect to the impact of any acceleration of vesting of stock options and any payments which will be made to the Participant before, at or immediately after the Change of Control and from time to time thereafter to the extent that the Participant may become entitled to receive any additional payments or benefits which would affect the amount of any "excess parachute payments" within the meaning of Section 280G(b)(1) of the Code payable to the Participant in order that the Participant may determine whether it is in the best interest of the Participant to waive the receipt of any or all amounts which may constitute "excess parachute payments." Any determination by the Accountants shall be binding upon the Company and the Participant. For purposes of the Plan, the "Accountants" shall mean the Company's independent certified public accountants serving immediately prior to the Change of Control. In the event that the Accountants are also serving as accountant or auditor for the individual, entity or group effecting the Change of Control, the Administration Committee shall appoint another nationally recognized public accounting firm to make the determinations required hereunder (which accounting firm shall then be referred to as the Accountants hereunder). All fees and expenses of the Accountants under this Section 4.2 shall be borne solely by the Company.

(B) For purposes of determining whether any of the Payments would be subject to the Excise Tax, such Payments will be treated as "parachute payments" within the meaning of

Section 280G of the Code and all "parachute payments" in excess of the "base amount" (within the meaning of Section 280G(b)(3) of the Code) shall be treated as subject to the Excise Tax, unless and except to the extent that (i) the Participant shall have waived the receipt or enjoyment of such Payments (in whole or in part) at such time and in such manner so as not to constitute a "payment" within the meaning of Section 280G(b) of the Code, or (ii) in the opinion of the Accountants, such Payments (in whole or in part) either do not constitute "parachute payments" or represent reasonable compensation for services actually rendered (within the meaning of Section 280G(b)(4) of the Code) in excess of the "base amount," or such "parachute payments" are otherwise not subject to such Excise Tax.

4.3 The payments provided in subsections (A), (C) and (G) of Section 4.1 hereof shall be made not later than the fifth (5th) day following the receipt by the Participant of the Accountants' determination. As a result of uncertainty in the application of Section 280G and Section 4999 of the Code at the time of the initial determination by the Accountants hereunder, it is possible that the Cash Severance Payment and/or the 20% Payment made by the Company will have been less than the Company should have paid pursuant to Section 4.1(A) or (G) hereof, as the case may be (the amount of any such deficiency, the "Underpayment") or more than the Company should have paid pursuant to Section 4.1(A) or (G) hereof, as the case may be (the amount of any such overage, the "Overpayment"). In the event of an Underpayment, the Company shall pay the Participant the amount of such Underpayment (together with interest at 120% of the rate provided in Section 1274(b)(2)(B) of the Code) not later than five (5) business days after the amount of such Underpayment is subsequently determined. In the event of an Overpayment, the amount of such Overpayment shall constitute a loan by the Company to the Participant, payable not later than five (5) business days after the amount of such Overpayment is subsequently determined (together with interest at 120% of the rate provided in Section 1274(b)(2)(B) of the Code).

4.4 At the time that any payments are made under the Plan, the Company shall provide the Participant with a written statement setting forth the manner in which such payments were calculated and the basis for such calculations including, without limitation, any opinions or other advice the Company has received from its counsel, the Accountants or other advisors or consultants (and any such opinions or advice which are in writing shall be attached to the statement).

5. Termination Procedures.

5.1 Notice of Termination. Any purported termination of a Participant's employment following a Change of Control (other than by reason of death) shall be communicated by written Notice of Termination from one party to the other party in accordance with Section 8 hereof. For purposes of the Plan, a "Notice of Termination" shall mean a notice which shall indicate the specific termination provision in the Plan relied upon and shall set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of the Participant's employment under the provision so indicated. Further, no termination for Cause shall be effective without (a) reasonable notice to the Participant setting forth the reasons for the

Company's intention to terminate which specifies the particulars thereof in detail, and (b) in the case of clause (ii) of the definition of Cause above, an opportunity for the Participant to cure such Cause within twenty (20) days after receipt of such notice. With respect to the Group I Participants, the Notice of Termination must include a written statement that a majority of the entire membership of the Board has determined that the Participant was guilty of the conduct constituting Cause. With respect to Group II Participants and Group III Participants, the Notice of Termination must include a written statement by one of the Participant's direct or indirect supervisors that the supervisor has determined that the Participant was guilty of conduct constituting Cause.

5.2 Date of Termination. "Date of Termination," with respect to any purported termination of a Participant's employment (other than by reason of the Participant's death), shall mean (i) if the Participant's employment is terminated for Disability, the date upon which a Notice of Termination is given, and (ii) if the Participant's employment is terminated for any other reason, the date specified in the Notice of Termination (which shall be within sixty (60) days from the date such Notice of Termination is given).

6. No Mitigation. The Company agrees that, in order for a Participant to be eligible to receive the payments and other benefits described herein, the Participant is not required to seek other employment or to attempt in any way to reduce any amounts payable to the Participant by the Company pursuant to Section 4 hereof. Further, the amount of any payment or benefit provided for in the Plan (other than pursuant to Section 4.1(B) hereof) shall not be reduced by any compensation earned by the Participant as the result of employment by another employer, by retirement benefits, by offset against any amount claimed to be owed by the Participant to the Company, or otherwise.

7. Successors; Binding Agreement.

7.1 (A) The Company shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business and/or assets of the Company to expressly assume the Plan and all obligations of the Company hereunder in the same manner and to the same extent that the Company would be so obligated if no such succession had taken place.

(B) This Plan shall inure to the benefit of and shall be binding upon the Company, its successors and assigns, but without the prior written consent of the Participants the Plan may not be assigned other than in connection with the merger or sale of any part of the business and/or assets of the Company or similar transaction in which the successor or assignee assumes (whether by operation of law or express assumption) all obligations of the Company hereunder.

7.2 This Plan shall inure to the benefit of and be enforceable by the Participant's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees, legatees or other beneficiaries. If a Participant shall die while any amount would still

be payable to such Participant hereunder (other than amounts which, by their terms, terminate upon the death of the Participant) if such Participant had continued to live, all such amounts, unless otherwise provided herein, shall be paid in accordance with the terms of the Plan to the executors, personal representatives or administrators of such Participant's estate.

8. Notices. For the purpose of the Plan, notices and all other communications provided for in the Plan shall be in writing and shall be deemed to have been duly given when delivered or mailed by United States registered mail, return receipt requested, postage prepaid, addressed, if to a Participant, to the address on file with the Company and, if to the Company, to the address set forth below, or to such other address as either party may have furnished to the other in writing in accordance herewith, except that notice of change of address shall be effective only upon actual receipt:

To the Company:

One Amgen Center Drive
Thousand Oaks, California 91320-1799
Attention: Corporate Secretary

9. Claims Procedures; Arbitration; Expenses.

9.1 Claim for Benefits. A Participant may file with the Administration Committee a written claim for benefits under the Plan. The Administration Committee shall, within a reasonable time not to exceed ninety (90) days, unless special circumstances require an extension of time of not more than an additional ninety (90) days (in which event a Participant will be notified of the delay during the first ninety (90) day period), provide adequate notice in writing to any Participant whose claim for benefits shall have been denied, setting forth the following in a manner calculated to be understood by the Participant: (i) the specific reason or reasons for the denial; (ii) specific reference to the provision or provisions of the Plan on which the denial is based; (iii) a description of any additional material or information required to perfect the claim, and an explanation of why such material or information is necessary; and (iv) information as to the steps to be taken in order that the denial of the claim may be reviewed. If written notice of the denial of a claim has not been furnished to a Participant, and such claim has not been granted within the time prescribed in this Section 9.1 (including any applicable extension), the claim for benefits shall be deemed denied.

9.2 Arbitration. Any dispute or controversy arising under or in connection with the Plan that cannot be settled through the procedures set forth in Section 9.1 hereof shall be settled by final and binding arbitration administered by JAMS/Endispute, or its successor, in Los Angeles, California in accordance with the then existing JAMS/Endispute Arbitration Rules and Procedures for Employment Disputes or any successor rules and procedures. In the event of such an arbitration proceeding, the Participant and the Company shall select a mutually acceptable neutral arbitrator from among the JAMS/Endispute panel of arbitrators. In the event the

Participant and the Company cannot agree on an arbitrator, the Administrator of JAMS/Endispute will appoint an arbitrator. Except as provided herein, the Federal Arbitration Act shall govern the interpretation, enforcement and all proceedings. The arbitrator shall apply the substantive law (and the law of remedies, if applicable) of the state of California, or federal law, or both, as applicable and the arbitrator is without jurisdiction to apply any different substantive law. The arbitrator shall have the authority to entertain a motion to dismiss and/or a motion for summary judgment by any party and shall apply the standards governing such motions under the Federal Rules of Civil Procedure. The arbitrator shall render an award and a written, reasoned opinion in support thereof. Judgment upon the award may be entered in any court having jurisdiction thereof.

9.3 Expenses, Legal Fees. The Company shall pay to the Participant all reasonable expenses (including arbitration fees and reasonable attorneys' fees and legal expenses) incurred by the Participant with respect to any dispute or controversy arising under or in connection with the Plan (including, without limitation, all such fees and expenses, if any, incurred in contesting or disputing any termination of the Participant's employment or in seeking to obtain or enforce any right or benefit provided by the Plan, or in connection with any tax audit or proceeding to the extent attributable to the application of Section 4999 of the Code to any payment or benefit provided hereunder) if the Participant prevails on any material issue which is in dispute with respect to such dispute or controversy.

10. Confidentiality; Non-Solicitation.

10.1 Confidentiality. With respect to each Participant, during the Participant's Benefits Continuation Period, the Participant shall not directly or indirectly disclose or make available to any person, firm, corporation, association or other entity for any reason or purpose whatsoever, any Confidential Information (as defined below). Upon termination of a Participant's employment with the Company, all Confidential Information in the Participant's possession that is in written or other tangible form (together with all copies or duplicates thereof, including computer files) shall be returned to the Company and shall not be retained by the Participant or furnished to any third party, in any form except as provided herein; provided, however, that the Participant shall not be obligated to treat as confidential, or return to the Company copies of any Confidential Information that (i) was publicly known at the time of disclosure to the Participant, (ii) becomes publicly known or available thereafter other than by any means in violation of the Plan or any other duty owed to the Company by any person or entity, or (iii) is lawfully disclosed to the Participant by a third party. For purposes of the Plan, the term "Confidential Information" shall mean information disclosed to the Participant or known by the Participant as a consequence of or through his or her relationship with the Company, about the customers, employees, business methods, public relations methods, organization, procedures or finances, including, without limitation, information of or relating to customer lists, of the Company and its affiliates. In addition, each Participant shall be subject to the Company's policies regarding proprietary information and inventions, as set forth in the Company's form of Proprietary Information and Inventions Agreement (the "Proprietary Information Agreement") in the form in effect immediately prior to a Change of Control.

10.2 Non-Solicitation. In addition to each Participant's obligations under the Proprietary Information Agreement, during a Participant's Benefits Continuation Period, the Participant shall not, either on the Participant's own account or jointly with or as a manager, agent, officer, employee, consultant, partner, joint venturer, owner or shareholder or otherwise on behalf of any other person, firm or corporation, directly or indirectly solicit or attempt to solicit away from the Company any of its officers or employees or offer employment to any person who is an officer or employee of the Company; provided, however, that a general advertisement to which an employee of the Company responds shall in no event be deemed to result in a breach of this Section 10.2.

10.3 Breach; Violation. In the event that a Participant breaches or violates any provision of Section 10.1 or 10.2 hereof, the Participant shall thereupon forfeit any right and interest of the Participant to receive payments or benefits hereunder, and the Company shall thereupon have no further obligation to provide such payments or benefits to the Participant hereunder.

10.4 Survival of Provisions. The provisions of this Section 10 shall survive the termination or expiration of the applicable Participant's employment with the Company and shall be fully enforceable thereafter. If it is determined by a court of competent jurisdiction in any state that any restriction in this Section 10 is excessive in duration or scope or is unreasonable or unenforceable under the laws of that state, it is the intention of the parties that such restriction may be modified or amended by the court to render it enforceable to the maximum extent permitted by the law of that state.

11. Miscellaneous.

11.1 No Waiver. No waiver by the Company or any Participant, as the case may be, at any time of any breach by the other party of, or of any lack of compliance with, any condition or provision of the Plan to be performed by such other party shall be deemed a waiver of similar or dissimilar provisions or conditions at the same or at any prior or subsequent time. All other plans, policies and arrangements of the Company in which the Participant participates during the term of the Plan shall be interpreted so as to avoid the duplication of benefits paid hereunder.

11.2 No Right to Employment. Nothing contained in the Plan or any documents relating to the Plan shall (i) confer upon any Participant any right to continue as a Participant or in the employ of the Company or a subsidiary, (ii) constitute any contract or agreement of employment, or (iii) interfere in any way with the at-will nature of the Participant's employment with the Company.

11.3 Termination and Amendment of Plan. Subject to Section 2 hereof, the Company shall have the right to terminate or amend the Plan at any time by resolution of the Board and to amend or cancel any amendments; provided, however, that after a Change of Control, the Company may not terminate the Plan and no amendment to the Plan shall be made which

removes any Participant from participation in the Plan, which amends subsection (M), (N) or (O) of Section 1 or which adversely affects a Participant's interests without the express written consent of the Participant(s) so affected. Subject to Section 10.3 hereof, notwithstanding anything contained herein to the contrary, all obligations accrued by Participants prior to any termination of the Plan must be satisfied in full in accordance with the terms hereof.

11.4 Benefits not Assignable. Except as otherwise provided herein or by law, no right or interest of any Participant under the Plan shall be assignable or transferable, in whole or in part, either directly or by operation of law or otherwise, including, without limitation, by execution, levy, garnishment, attachment, pledge or in any manner; no attempted assignment or transfer thereof shall be effective; and no right or interest of any Participant under the Plan shall be liable for, or subject to, any obligation or liability of such Participant. When a payment is due under the Plan to a Participant who is unable to care for his or her affairs, payment may be made directly to his or her legal guardian or personal representative.

11.5 Tax Withholding. All amounts payable hereunder shall be subject to applicable federal, state and local tax withholding.

11.6 California Law. This Plan shall be construed, interpreted and the rights of the parties determined in accordance with the laws of the State of California, to the extent not preempted by federal law, which shall otherwise control.

11.7. Validity. The invalidity or unenforceability of any provision of the Plan shall not affect the validity or enforceability of any other provision of the Plan, which shall remain in full force and effect. If the Plan shall for any reason be or become unenforceable by either party, the Plan shall thereupon terminate and become unenforceable by the other party as well.

EXHIBIT 21

AMGEN INC.

Subsidiary (Name under which subsidiary does business)	State of Incorporation or Organization
Amgen AB	Sweden
Amgen Australia Pty Limited	Australia
Amgen (Bermuda) Clinical Development, Limited	Bermuda
Amgen (Bermuda) Clinical Development 2, Limited	Bermuda
Amgen (Bermuda) Clinical Development 3, Limited	Bermuda
Amgen (Bermuda) Clinical Development 4, Limited	Bermuda
Amgen (Bermuda) Clinical Development 5, Limited	Bermuda
Amgen (Bermuda) Clinical Development 6, Limited	Bermuda
Amgen (Bermuda) Clinical Development 7, Limited	Bermuda
Amgen (Bermuda) Clinical Development 8, Limited	Bermuda
Amgen (Bermuda) Clinical, Limited	Bermuda
Amgen (Bermuda) Development, Limited	Bermuda
Amgen (Bermuda), Limited	Bermuda
Amgen--Bio-Farmaceutica, Lda	Portugal
Amgen Boulder Development Corporation	Colorado
Amgen Boulder Production Corporation	Colorado
Amgen B.V	The Netherlands
Amgen Cambridge Real Estate Holdings Inc	Delaware
Amgen Canada Inc	Canada
Amgen Caribe Corporation	Puerto Rico
Amgen (Europe) AG	Switzerland
Amgen Europe B.V	The Netherlands
Amgen GmbH	Austria
Amgen GmbH	Germany
Amgen Greater China, Ltd	Hong Kong
Amgen Holding, Inc	California
Amgen International Inc	Delaware
Amgen Kabushiki Kaisha	Japan
Amgen Limited	United Kingdom
Amgen N.V	Belgium
Amgen Puerto Rico, Inc	Delaware
Amgen Sales Corporation	Barbados
Amgen S.A	France
Amgen, S.A	Spain
Amgen S.p.A	Italy
Kirin-Amgen, Inc	Delaware
Synergen B.V	The Netherlands
Synergen Europe, Inc	Colorado

5

THIS SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED FINANCIAL STATEMENTS CONTAINED IN THE COMPANY'S ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 1998 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

1,000,000

YEAR	
	DEC-31-1998
	JAN-01-1998
	DEC-31-1998
	201
	1,075
	337
	17
	111
	1,863
	2,052
	602
	3,672
	887
	223
	0
	0
	0
	2,562
	3,672
	2,514
	2,718
	345
	345
	663
	0
	10
	1,224
	361
	863
	0
	0
	0
	863
	1.69
	1.63

ITEM CONSISTS OF RESEARCH AND DEVELOPMENT EXPENSES.
REFLECTS A TWO-FOR-ONE SPLIT OF THE COMMON STOCK EFFECTED IN THE FORM OF A 100 PERCENT STOCK DIVIDEND ON OUTSTANDING STOCK DISTRIBUTED ON FEBRUARY 26, 1999, TO STOCKHOLDERS OF RECORD ON FEBRUARY 12, 1999. "EPS-PRIMARY" DENOTES BASIC EPS.

5

THIS AMENDED AND RESTATED SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONSOLIDATED FINANCIAL STATEMENTS CONTAINED IN THE COMPANY'S ANNUAL REPORTS ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 1997 AND FOR THE YEAR ENDED DECEMBER 31, 1996 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

1,000,000

YEAR	YEAR
DEC-31-1997	DEC-31-1996
JAN-01-1997	JAN-01-1996
DEC-31-1997	DEC-31-1996
239	169
787	908
283	237
14	12
109	97
1,544	1,503
1,669	1,301
483	391
3,110	2,766
742	643
229	59
0	0
0	0
0	0
2,139	1,906
3,110	2,766
2,220	2,088
2,401	2,240
301	283
301	283
631	528
0	0
4	6
861	962
217	283
644	680
0	0
0	0
0	0
644	680
1.22	1.28
1.17	1.21

AMENDED TO CONFORM WITH THE REQUIREMENTS OF REGULATION S-K, ITEM 601(c), APPENDIX A. ITEM CONSISTS OF RESEARCH AND DEVELOPMENT EXPENSES.
AMENDED TO CONFORM WITH THE REQUIREMENTS OF REGULATION S-K, ITEM 601(c), APPENDIX A.
RETROACTIVELY RESTATED TO REFLECT A TWO-FOR-ONE SPLIT OF THE COMMON STOCK EFFECTED IN THE FORM OF A 100 PERCENT STOCK DIVIDEND ON OUTSTANDING STOCK DISTRIBUTED ON FEBRUARY 26, 1999, TO STOCKHOLDERS OF RECORD ON FEBRUARY 12, 1999. "EPS-PRIMARY" DENOTES BASIC EPS.

5

THIS AMENDED AND RESTATED SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS CONTAINED IN THE COMPANY'S QUARTERLY REPORTS ON FORM 10-Q FOR THE QUARTERS ENDED SEPTEMBER 30, 1998, JUNE 30, 1998 AND MARCH 31, 1998 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

1,000,000

9-MOS	6-MOS	3-MOS
DEC-31-1998	DEC-31-1998	DEC-31-1998
JAN-01-1998	JAN-01-1998	JAN-01-1998
SEP-30-1998	JUN-30-1998	MAR-31-1998
104	158	105
1,021	863	776
313	307	304
17	16	15
109	113	118
1,696	1,568	1,412
1,966	1,897	1,794
568	547	516
3,444	3,287	3,082
875	867	825
223	223	223
0	0	0
0	0	0
0	0	0
2,346	2,197	2,030
3,444	3,287	3,082
1,820	1,178	567
1,963	1,262	605
250	163	79
250	163	79
471	305	153
0	0	0
9	6	2
899	577	268
274	173	80
625	404	187
0	0	0
0	0	0
0	0	0
625	404	187
1.22	0.79	0.37
1.18	0.77	0.35

AMENDED TO CONFORM WITH THE REQUIREMENTS OF REGULATIONS S-K, ITEM 601(c), APPENDIX A. ITEM CONSISTS OF RESEARCH AND DEVELOPMENT EXPENSES.
AMENDED TO CONFORM WITH THE REQUIREMENTS OF REGULATION S-K, ITEM 601(c), APPENDIX A.
RETROACTIVELY RESTATED TO REFLECT A TWO-FOR-ONE SPLIT OF THE COMMON STOCK EFFECTED IN THE FORM OF A 100 PERCENT STOCK DIVIDEND ON OUTSTANDING STOCK DISTRIBUTED ON FEBRUARY 26, 1999, TO STOCKHOLDERS OF RECORD ON FEBRUARY 12, 1999. "EPS-PRIMARY" DENOTES BASIC EPS.

5

THIS AMENDED AND RESTATED SCHEDULE CONTAINS SUMMARY FINANCIAL INFORMATION EXTRACTED FROM THE CONDENSED CONSOLIDATED FINANCIAL STATEMENTS CONTAINED IN THE COMPANY'S QUARTERLY REPORTS ON FORM 10-Q FOR THE QUARTERS ENDED SEPTEMBER 30, 1997, JUNE 30, 1997 AND MARCH 31, 1997 AND IS QUALIFIED IN ITS ENTIRETY BY REFERENCE TO SUCH FINANCIAL STATEMENTS.

1,000,000

9-MOS	6-MOS	3-MOS
DEC-31-1997	DEC-31-1997	DEC-31-1997
JAN-01-1997	JAN-01-1997	JAN-01-1997
SEP-30-1997	JUN-30-1997	MAR-31-1997
240	331	265
862	894	780
250	242	219
14	13	12
111	106	100
1,526	1,646	1,437
1,579	1,490	1,400
467	445	418
3,002	3,043	2,773
634	588	539
129	134	59
0	0	0
0	0	0
0	0	0
2,239	2,270	2,018
3,002	3,043	2,773
1,656	1,103	536
1,794	1,196	576
223	149	72
223	149	72
466	293	148
0	0	0
1	1	0
617	529	250
152	148	70
465	381	180
0	0	0
0	0	0
0	0	0
465	381	180
0.88	0.72	0.34
0.84	0.69	0.32

AMENDED TO CONFORM WITH THE REQUIREMENTS OF REGULATION S-K, ITEM 601(c), APPENDIX A. ITEM CONSISTS OF RESEARCH AND DEVELOPMENT EXPENSES.
AMENDED TO CONFORM WITH THE REQUIREMENTS OF REGULATION S-K, ITEM 601(c), APPENDIX A.
RETROACTIVELY RESTATED TO REFLECT A TWO-FOR-ONE SPLIT OF THE COMMON STOCK EFFECTED IN THE FORM OF A 100 PERCENT STOCK DIVIDEND ON OUTSTANDING STOCK DISTRIBUTED ON FEBRUARY 26, 1999, TO STOCKHOLDERS OF RECORD ON FEBRUARY 12, 1999. "EPS-PRIMARY" DENOTES BASIC EPS.