New Data Suggest Risk of Infection Doubles with Reduced NEUPOGEN Administration

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FOR IMMEDIATE RELEASE

-- Optimal Usage of White Blood Cell Stimulator Important to Facilitating Dose-Dense Chemotherapy Regimens --

CHICAGO, IL, June 2, 2003 - Amgen (Nasdaq: AMGN), the world's largest biotechnology company, today announced data from several studies presented at the American Society of Clinical Oncology (ASCO) Annual Meeting evaluating the impact of optimal usage of NEUPOGEN® (Filgrastim) to help facilitate planned delivery of chemotherapy and dose-dense chemotherapy regimens by reducing the risk of infection.

A study led by Marita Kloess, MD, of the University of Leipzig Institute for Medical Informatics, Leipzig, Germany, found that cancer patients who received chemotherapy on a dose-dense or every-two-week chemotherapy schedule along with recommended NEUPOGEN® administration (10 days) experienced significantly fewer infections than those who received a reduced administration of NEUPOGEN® (seven days). This study totaling 244 patients with aggressive non-Hodgkin's lymphoma compared two similar clinical trials to evaluate the effects of reduced application of granulocyte colony-stimulating factor (G-CSF). The study demonstrated that reduced NEUPOGEN® dosing can increase patient risk for infection and use of intravenous antibiotics. Patients who received the reduced dosage of NEUPOGEN® (seven days) experienced a lower leukocyte nadir (lowest point) and a delayed leukocyte recovery. [ASCO Abstract # 2402]

Neutropenia is a severe drop in the number of infection-fighting white blood cells (leukocytes) that puts patients at risk for serious or life-threatening infections. Close to half of cancer chemotherapy patients develop severe neutropenia. Some symptoms that may be associated with neutropenia include fever, chills and sweating, sore throat and mouth ulcers. Use of G-CSF may prevent expensive and avoidable hospitalizations and help maintain planned chemotherapy schedules.

Data from a second study further underscored the importance of following recommended NEUPOGEN® dosing instructions, showing that NEUPOGEN® administered 11 days per chemotherapy cycle helps facilitates planned delivery of chemotherapy with a low rate of neutropenic complications. The study of 780 cancer patients with differing tumor types was led by Sheila Donnelly, MD, Heywood Hospital, Gardner, MA.

Patients in this study received NEUPOGEN® per product labeling instructions over multiple tumor types and chemotherapy regimens. By day 14 of each cycle, more than 90 percent of patients had sufficiently high absolute neutrophil (white blood cell) counts (ANC) to proceed with the next chemotherapy cycle. Fewer than six percent of patients had to delay or reduce their chemotherapy due to neutropenia or infection.

Delivering planned chemotherapy doses on time is considered to be an extremely important factor in helping patients receive maximum benefit from chemotherapy. As chemotherapy evolves and new approaches like dose-dense chemotherapy demonstrate higher success rates, preventing infection in patients is critical. Infection can force doctors to stop chemotherapy or delay a cycle of treatment. Furthermore, many chemotherapy patients who develop infections require hospitalization involving significant cost. [ASCO Abstract # 728]

A pilot study presented today at ASCO by Ellis et al., showed increased survival benefits for patients on dose-dense chemotherapy regimens supported by NEUPOGEN®. Of the 48 evaluable patients who completed treatment for adjuvant breast cancer, febrile neutropenia (fever associated with neutropenia) occurred in only eight patients and at three years of follow-up, overall survival was 90 percent. [ASCO Abstract # 148]

Most Breast Cancer Patients Receive Less Than Recommended Chemotherapy

Data from a retrospective study of approximately 20,000 breast cancer patients treated with adjuvant chemotherapy indicate that these patients received substantially less than recommended dosages, even though this is considered a highly curable tumor. In fact, more than half of the patients received less than 85 percent of the recommended chemotherapy dose.

"This finding is particularly troubling in that 85 percent is the threshold at which we begin to see chemotherapy lose its benefit," said Olayemi Agboola, MS, of the University of Rochester, Rochester, NY. "Chemotherapy treatment continues to evolve into more aggressive and rigorous approaches such as dose-dense regimens, yet some patients still are not receiving the established regimens that will help them take advantage of these new advances." [ASCO Abstract # 110]

About NEUPOGEN®

NEUPOGEN® (Filgrastim) is indicated to decrease the incidence of infection as manifested by febrile neutropenia in patients with nonmyeloid malignancies receiving myelosuppressive anticancer drugs associated with a significant incidence of severe neutropenia with fever. On January 31, 2002, the U.S. Food and Drug Administration approved Neulasta™ (pegfilgrastim), a longer acting version of Filgrastim which is administered once per chemotherapy cycle. Neulasta™ is indicated to decrease the incidence of infection, as manifested by febrile neutropenia, in patients with nonmyeloid malignancies receiving myelosuppressive anticancer drugs associated with a clinically significant incidence of febrile neutropenia.

In the phase 3 trial of NEUPOGEN® therapy following combination chemotherapy in patients (n = 207) with small-cell lung cancer, bone pain was reported in 22% of patients. In most cases, bone pain was controlled with non-narcotic analgesics, such as acetaminophen. In postmarketing experience, rare events of adult respiratory distress syndrome, splenic rupture, and sickle cell crisis have been reported in patients receiving NEUPOGEN®.

Amgen is a global biotechnology company that discovers, develops, manufactures and markets important human therapeutics based on advances in cellular and molecular biology.

This news release contains forward-looking statements that involve significant risks and uncertainties, including those discussed below and others that can be found in Amgen's Form 10-K for the year ended December 31, 2002, and in Amgen's periodic reports on Form 10-Q and Form 8-K. Amgen is providing this information as of the date of this news release and does not undertake any obligation to update any forward-looking statements

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NEUPOGEN® prescribing information can be accessed by calling 800-772-6436 or by logging onto www.neupogen.com. Neulasta™ prescribing information can be accessed by calling 866-611-DRUG (3784) or by logging onto www.neulasta.com.