Amgen Presents Preclinical and Clinical Data from Oncology Programs

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Early Data Presented from Investigational Molecules that Target Apoptosis and Growth Regulation Pathways

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SAN DIEGO--(BUSINESS WIRE)--April 15, 2008--Amgen (NASDAQ:AMGN) today announced data generated by the company's robust oncology research and development programs in the areas of apoptosis (programmed cell death) and cell growth regulation. The data, presented at the American Association for Cancer Research (AACR) Annual Meeting in San Diego were from five preclinical studies evaluating anti-tumor activity, pharmacodynamics, and potential pre-clinical and clinical biomarkers for investigational molecules AMG 655, AMG 479 and AMG 102.

"We are excited to be pushing the boundaries of knowledge around known oncology pathways such as apoptosis and growth regulation by exploring new and innovative approaches to attack tumor cells," said David Chang, M.D., vice president, Global Oncology Development at Amgen. "While still early, we are pleased to be presenting a broad spectrum of data at this meeting reinforcing the biologic plausibility of targeting newly-discovered approaches to attack cancer via these pathways."

Targeting Apoptosis via Death Receptors

AMG 655 is an investigational fully human monoclonal antibody (mAb) agonist directed against death receptor 5 (DR5). AMG 655 is designed to activate caspases and induce apoptosis in sensitive tumor cells.

Apoptosis is a form of cell suicide in which a controlled sequence of biochemical events leads to cell death. In cancer, the dysregulation of apoptosis is critical in the development and survival of tumors. Apoptosis can be triggered by cell stress and DNA damage, but it also occurs normally during development of the body.

Data presented at AACR showed that, when combined with the chemotherapeutic agent gemcitabine, AMG 655 enhanced apoptosis in both in vitro, and in vivo, pancreatic cancer models. The combination of AMG 655 and gemcitabine was more effective in these models than either agent alone.

In another study, AMG 655 was combined with a chemotherapeutic agent (irinotecan or 5-fluorouracil (5-FU)) enhanced apoptosis relative to either agent alone in both in vitro and in vivo colon cancer cell models. AMG 655 is currently being tested against colorectal cancer in a Phase 1b/2 clinical trial.

In a third study, positron emission tomography (PET) was evaluated for its potential as a non-invasive method to measure receptor occupancy of DR5, the target of AMG 655. The preclinical results support the potential of using PET for imaging DR5 positive tumors and measuring receptor occupancy in patients. This imaging technology also is being applied to the study of other antibodies in the Amgen pipeline.

Targeting Growth Regulation in Cancer

AMG 479 is an investigational fully human monoclonal antibody that binds to insulin-like growth factor-1 receptor (IGF-1R) without cross-reacting with the closely related insulin receptor.

IGF-1 and IGF-2 activate the IGF-1R receptor, which is expressed in many human cancers. The expression of IGF-1 mediates tumor proliferation and reduces apoptosis and is associated with higher incidences and more aggressive progression of many common cancers.

Activation of these growth and survival pathways may allow tumor cells to resist the apoptosis-inducing activity of chemotherapy, radiation, and hormonal therapy and can increase cellular proliferation.

The preclinical data presented showed that AMG 479 inhibited more than 80 percent of IGF-1 induced growth activation in certain sarcoma cell line. Treatment of these cell lines with a combination of AMG 479 and cyclophosphamide resulted in significant ($p=0.0020$ vs. AMG 479, $p=0.0002$ vs. cyclophosphamide) tumor growth inhibition compared to either treatment alone. AMG 479 is currently in phase 2 Ewing's sarcoma trial.

AMG 102

AMG 102 is an investigational fully human monoclonal antibody that targets the action of anti-hepatocyte growth factor (HGF)/scatter factor (SF). HGF signaling through its receptor c-Met appears to play an important role in many types of human cancers.

The HGF/SF:c-Met pathway mediates a large number of normal activities in cells of epithelial origin - including proliferation, survival, migration, and invasion. The dysregulation of the HGF/SF:c-Met pathway appears to play an important role in many types of cancers, often leading to tumorigenesis and metastasis.

The data presented at AACR examined exploratory biomarkers that might be useful pharmacodynamic or patient enrichment markers for HGF/SF:c-Met therapies like AMG 102. Preclinical glioblastoma tumor xenograft models were treated with a single dose of AMG 102 ranging from 3-300 ug IP. On days 3 and 7 after treatment initiation, plasma was harvested and levels of tumor-derived total human HGF, soluble human c-Met and CD44v6 (a c-Met associated protein) were quantified. Plasma samples from patients enrolled in the AMG 102 first-in-human trial were also examined. Total HGF and soluble c-Met levels were determined in plasma from patients in sequential dose cohorts (4-6 pts/cohort) that had been treated with AMG 102 at 0.5, 1, 3, 5, 10, or 20 mg/kg.

The study found that the treatment of tumor bearing preclinical models or cancer patients with AMG 102 gave rise to a dose-dependent increase in circulating HGF levels which suggests that monitoring HGF levels during treatment may serve as a biomarker for inhibition of the HGF/SF:c-Met pathway.

About Amgen

Amgen discovers, develops, manufactures and delivers innovative human therapeutics. A biotechnology pioneer since 1980, Amgen was one of the first companies to realize the new science's promise by bringing safe and effective medicines from lab, to manufacturing plant, to patient. Amgen therapeutics have changed the practice of medicine, helping millions of people around the world in the fight against cancer, kidney disease, rheumatoid arthritis and other serious illnesses. With a deep and broad pipeline of potential new medicines, Amgen remains committed to advancing science to dramatically improve people's lives. To learn more about our pioneering science and our vital medicines, visit www.amgen.com.

Forward-Looking Statements

This news release contains forward-looking statements that are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and assumptions that could cause actual results to differ materially from those described. All statements, other than statements of historical fact, are statements that could be deemed forward-looking statements, including estimates of revenues, operating margins, capital expenditures, cash, other financial metrics, expected legal, arbitration, political, regulatory or clinical results or practices, customer and prescriber patterns or practices, reimbursement activities and outcomes and other such estimates and results. Forward-looking statements involve significant risks and uncertainties, including those discussed below and more fully described in the Securities and Exchange Commission (SEC) reports filed by Amgen, including Amgen's most recent annual report on Form 10-K and most recent periodic reports on Form 10-Q and Form 8-K. Please refer to Amgen's most recent Forms 10-K, 10-Q and 8-K for additional information on the uncertainties and risk factors related to our business. Unless otherwise noted, Amgen is providing this information as of April 14, 2008 and expressly disclaims any duty to update information contained in this news release.

No forward-looking statement can be guaranteed and actual results may differ materially from those we project. Discovery or identification of new product candidates or development of new indications for existing products cannot be guaranteed and movement from concept to product is uncertain; consequently, there can be no guarantee that any particular product candidate or development of a new indication for an existing product will be successful and become a commercial product. Further, preclinical results do not guarantee safe and effective performance of product candidates in humans. The complexity of the human body cannot be perfectly, or sometimes, even adequately modeled by computer or cell culture systems or animal models. 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 and we expect similar variability in the future. We develop product candidates internally and through licensing collaborations, partnerships and joint ventures. Product candidates that are derived from relationships may be subject to disputes between the parties or may prove to be not as effective or as safe as we may have believed at the time of entering into such relationship. Also, we or others could identify safety, side effects or manufacturing problems with our products after they are on the market. Our business may be impacted by government investigations, litigation and products liability claims. We depend on third parties for a significant portion of our manufacturing capacity for the supply of certain of our current and future products and limits on supply may constrain sales of certain of our current products and product candidate development.

In addition, sales of our products are affected by the reimbursement policies imposed by third-party payors, including governments, private insurance plans and managed care providers and may be affected by regulatory, clinical and guideline developments domestic and international trends toward managed care and health care cost containment as well as U.S. legislation affecting pharmaceutical pricing and reimbursement. Government and others' regulations and reimbursement policies may affect the development, usage and pricing of our products. In addition, we compete with other companies with respect to some of our marketed products as well as for the discovery and development of new products. We believe that some of our newer products, product candidates or new indications for existing products, may face competition when and as they are approved and marketed. Our products may compete against products that have lower prices, established reimbursement, superior performance, are easier to administer, or that are otherwise competitive with our products. In addition, while we routinely obtain patents for our products and technology, the protection offered by our patents and patent applications may be challenged, invalidated or circumvented by our competitors and there can be no guarantee of our ability to obtain or maintain patent protection for our products or product candidates. We cannot guarantee that we will be able to produce commercially successful products or maintain the commercial success of our existing products. Our stock price may be affected by actual or perceived market opportunity, competitive position, and success or failure of our products or product candidates. Further, the discovery of significant problems with a product similar to one of our products that implicate an entire class of products could have a material adverse effect on sales of the affected products and on our business and results of operations.

The scientific information discussed in this news release related to our product candidates is preliminary and investigative. Such product candidates are not approved by the U.S. Food and Drug Administration (FDA), and no conclusions can or should be drawn regarding the safety or effectiveness of the product candidates. Only the FDA can determine whether the product candidates are safe and effective for the use(s) being investigated. Further, the scientific information discussed in this news release relating to new indications for our products is preliminary and investigative and is not part of the labeling approved by the FDA for the products. The products are not approved for the investigational use(s) discussed in this news release, and no conclusions can or should be drawn regarding the safety or effectiveness of the products for these uses. Only the FDA can determine whether the products are safe and effective for these uses. Healthcare professionals should refer to and rely upon the FDA-approved labeling for the products, and not the information discussed in this news release.

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