Media Release

Basel, 18 December 2003

Roche and deCODE Announce Milestones in the Pharmacogenomics of Asthma and Hypertension

Simple gene expression assays used in clinical trials predicted response to common asthma and hypertension drugs with an average accuracy of 85%

Roche Diagnostics and deCODE genetics today announced the achievement by deCODE of two milestones under the companies' alliance to develop DNA-based diagnostic tests. Scientists at deCODE's pharmacogenomics and clinical trials subsidiary Encode have developed gene expression assays that can predict responsiveness to common treatments for asthma and hypertension. In the Icelandic cohorts studied, the research assays predicted, with an average accuracy of 85%, which patients would or would not respond to leading classes of drugs used to treat these diseases. The companies are working together to validate these findings and to turn these assays into novel diagnostic tests. Such tests could provide physicians and their patients with information that can be used to select individualized treatment options. deCODE receives milestone payments for these discoveries.

Through *in vitro* analysis of gene expression in peripheral blood mononuclear cells (PBMCs) taken from patients who are responders or non-responders to a given class of drug, Encode identified genes whose expression levels accurately predict whether the class of drug works well for individual patients. In asthma, Encode analyzed gene expression profiles from several hundred responders and non-responders to the largest classes of therapeutic drugs: corticosteroids and leukotrine inhibitors. In hypertension, Encode enrolled several hundred patients to generate expression profiles for responsiveness to representative drugs from the leading classes of drugs used to lower blood pressure: angiotensin II inhibitors, calcium channel blockers, and ACE inhibitors. For each class of drugs in both diseases, Encode identified fewer than a dozen genes the expression of which yielded an 85% accurate prediction of responsiveness.

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"This is a very important and exciting discovery and underscores the value of our pioneering approach to improving patient outcomes by marrying knowledge of the genetic basis of disease and response to therapy," said Heino von Prondzynski, Head of Roche Diagnostics and Member of the Roche Executive Committee. " We are committed to using our leading position in diagnostics to create new tools to help physicians fulfill the promise of personalized healthcare."

"Pharmacogenomic tests such as these will be an important means of applying advances in genetics to improve and personalize healthcare. Even the best drugs do not work for everyone, and many good drugs have side effects. Through the development of tests based on these findings, we can determine which drugs are best suited to individuals, thereby optimizing therapeutic impact and sparing patients unnecessary side effects that can result from prescribing drugs through trial and error," said Dr. Kari Stefansson, CEO of deCODE. "In so doing, we may be able not only to make medicines more beneficial to patients, but also to enable pharmaceutical companies to develop new drugs more efficiently and to maximize the value of their products in highly competitive marketplaces."

About Roche

Headquartered in Basel, Switzerland, Roche is one of the world's leading innovation-driven healthcare groups. Its core businesses are pharmaceuticals and diagnostics. Roche is number one in the global diagnostics market, the leading supplier of pharmaceuticals for cancer and a leader in virology and transplantation. As a supplier of products and services for the prevention, diagnosis and treatment of disease, the Group contributes on a broad range of fronts to improving people's health and quality of life. Roche employs roughly 65,000 people in 150 countries. The Group has alliances and R&D agreements with numerous partners, including majority ownership interests in Genentech and Chugai.

Roche's Diagnostics Division, the world leader in in-vitro diagnostics with a uniquely broad product portfolio, supplies a wide array of innovative testing products and services to researchers, physicians, patients, hospitals and laboratories world-wide. For further information, please visit Roche's websites www.roche.com and www.roche-diagnostics.com.

About deCODE

deCODE is using population genetics to create a new paradigm for healthcare. With its uniquely comprehensive population data, deCODE is turning research on the genetic causes of common diseases into a growing range of products and services -- in pharmaceuticals, gene and drug

discovery, DNA-based diagnostics, pharmacogenomics, bioinformatics, and clinical trials. deCODE's pharmaceuticals group, based in Chicago, and deCODE's biostructures group, based in Seattle, conduct downstream development work on targets derived from deCODE's proprietary research in human genetics as well as contract service work for pharmaceutical and biotechnology companies. deCODE is delivering on the promise of the new genetics.℠ Visit us on the web at www.decode.com.

Additional information: http://www.roche.com/pages/facets/22/gene_e.pdf

Fax Cover Sheet

Roche

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If this fax transmission is incomplete or any pages are illegible, please call Tel. No. ++41 61 688 50 88 or Fax no. ++41 61 688 13 95. Thank you.

Rule 12g3-2(b) Exemption: Information to the SEC

Dear Peter,

Please find attached the following documents:

- Media Release December 15, 2003: **"Roche reports on two major achievements in Japan, the world's second largest pharmaceuticals market"**
- Investor Update December 16, 2003: **"FDA approves labelling for use of Xenical (orlistat) in management of obesity in adolescent patients aged 12 to 16 years"**
- Media Release December 18, 2003: **"Roche and decode Announce Milestones in the Pharmacogenomics of Asthma and Hypertension"**

May we kindly ask you to furnish these documents to the SEC on our behalf, keep one copy at your office and send us a copy of the acknowledgement of receipt of the SEC.

With kind regards
F.Hoffmann-La Roche Ltd

Dr. Beat Kraehenmann
(On his behalf Esther Massmuenster)

Roche

Investor Update

Tuesday, December 16, 2003

FDA approves labeling for use of Xenical (orlistat) in management of obesity in adolescent patients aged 12 to 16 years

Only prescription weight-loss treatment approved with labeling for use in management of obesity in adolescents

Roche today announced that the U.S. Food and Drug Administration has approved labeling for use of the prescription weight-loss medication Xenical (orlistat) in the management of obese adolescents ages 12 to 16 years. This is the first approval of its kind for a prescription weight-loss treatment.

"This is very good news for adolescents struggling with overweight and obesity," said Marc S. Jacobson, M.D., attending physician and director of the Center for Atherosclerosis Prevention in the Division of Adolescent Medicine at Schneider Children's Hospital of North Shore-Long Island Jewish Health System. "Obesity is an epidemic, with the number of obese adolescents doubling over the last 20 years. Physicians and parents of overweight and obese adolescents now have a safe and effective treatment option available that will help manage their child's weight."

Obesity puts adolescents at risk
Overweight and obesity has reached epidemic proportions in the United States. Currently, about 15% of adolescents in the U.S. are obese, and 30% are overweight. Poor dietary habits and physical inactivity have been clearly identified as contributors to this growing health problem. Adolescents who are obese are at greater risk of being obese as adults and of developing serious health problems, including type 2 diabetes and heart disease, and have an increased risk of mortality. According to the National Diabetes Education Program (NDEP), some clinics are now reporting that one-third to one-half of all new cases of childhood diabetes are type 2 and that the overall number of new cases is increasing.

"If a parent is concerned that their child may be overweight, it's important to talk with their physician," said Dr. Jacobson. "Combining diet, exercise and changes in lifestyle habits with medication can help seriously overweight adolescents manage their weight and reduce their risk of serious health problems."

Clinical studies results
The safety and efficacy of Xenical in obese adolescents was assessed in a randomized, 54 week double-blind, placebo-controlled study that involved 539 patients aged 12 to 16 (120 mg of Xenical or matching placebo was administered three times a day with meals. This dose is consistent with the currently approved dose of Xenical for adults.). Of this group, 357 were treated with Xenical and a reduced-calorie diet containing no more than 30% of calories from fat compared with 182 patients treated with placebo and diet. The average age of participants was 13 and-a-half years with an average weight of approximately 210 lbs., putting them in the 99th percentile for their age. Body mass index (BMI) was the primary efficacy parameter because it takes into account changes in height and body weight, which occur in growing children.

Study results showed that at the end of treatment:
"Patients treated with Xenical plus diet had a significantly reduced BMI compared with patients receiving placebo plus diet.
"A 5% reduction in BMI was achieved in 27% of patients receiving Xenical plus diet compared with 16% of patients receiving placebo plus diet.
"Tolerability was good and reported adverse events were generally similar to those seen in adults treated with Xenical such as fatty/oily stool, oily spotting and oily evacuation consistent with the drug's mechanism of action.
"The reduction in BMI was associated with greater loss of body fat in the Xenical plus diet-treated patients compared with the placebo plus diet patients (5.5 lbs. vs. 1.3 lbs.), while both groups experienced a similar increase in fat free mass and bone mineral content (as expected with normal growth).

A second study showed that the balance of calcium, magnesium, phosphorus, zinc or copper was not decreased and was similar in those receiving Xenical compared with those receiving placebo. The iron balance was decreased in both the Xenical treated patients and the placebo patients.

About Xenical
Xenical is the only available weight-loss medication that works locally in the gut to prevent dietary fat absorption by around 30% to effectively promote weight loss. It is an effective therapy that not only helps patients lose weight, but also helps them maintain their weight loss. Xenical is well tolerated and unlike appetite suppressants which act on the central nervous system. Since it was first marketed in 1998, there have been more than 16.7 million patient treatments with Xenical worldwide. Xenical is approved for weight management in over 140 countries around the world.

The long-term effects of Xenical on morbidity and mortality associated with obesity have not been established. Because Xenical prevents about one-third of the fat in the food consumed from being absorbed, patients may experience gas with oily discharge, increased bowel movements, an urgent need to have them and an inability to control them, particularly after meals containing more fat than recommended. Xenical should not be taken if patients are pregnant, nursing, have food absorption problems or reduced bile flow. If taking cyclosporine, patients should speak to their doctors before taking Xenical. Xenical reduces the absorption of some vitamins. Therefore, a daily multivitamin is strongly recommended. For more information about Xenical visit the web site at www.xenical.com

About Roche
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Media Release

Basel, 15 December, 2003

Roche reports on two major achievements in Japan, the world's second largest pharmaceuticals market

Chugai and Roche sign licensing agreement for anti-cancer drugs Avastin and Omnitarg in Japan

Pegasys reimbursement achieved and launched in Japan

Roche and Chugai Pharmaceutical Co., Ltd., Tokyo, Japan, ("Chugai") announced today two major achievements that will further strengthen the Roche Group's position in the important Japanese market – a new licensing agreement for two innovative cancer drugs and the launch of Pegasys for hepatitis C.

Licencing Agreement for Cancer Drugs

Roche and Chugai have signed a licensing agreement under which Chugai will obtain exclusive rights in Japan to develop and market two innovative anti-cancer drugs, Avastin (bevacizumab), and Omnitarg (pertuzumab), both discovered by Genentech, USA. Chugai will pay license fees to Roche for the two drugs. Roche holds the exclusive rights outside the US and Genentech in the US.

"There are approximately 1,3 million people in Japan who suffer from various cancers, hence the huge need for new and better medicines. We believe that Avastin and Omnitarg represent an important step forward in the fight to treat cancer" said William M Burns, Head of Roche's Pharmaceutical Division. "The addition of these two drugs to Chugai's portfolio will also further strengthen our position in Japan, the world's second largest pharmaceuticals market."

About Avastin

Avastin – a recombinant humanized therapeutic antibody - inhibits Vascular Endothelial Growth Factor (VEGF), a protein that is believed to play an important role in tumor angiogenesis. By inhibiting VEGF, Avastin interferes with the blood supply to tumors, thereby inhibiting tumor growth and potentially leading to tumor regression. It represents a promising, novel anti-cancer approach with a broad potential in a number of solid tumors, and is likely to be complementary with current chemotherapy approaches.

Chugai plans to start phase I clinical trials for Avastin next year with an initial target indication of metastatic colorectal cancer. Avastin has been filed by Roche in Europe and Genentech in the United States, both submissions for colon cancer. It is also being evaluated as a potential therapy in lung, renal, and other cancers. Genentech and Roche are either planning for, or currently conducting clinical trials for indications other than colon cancer, and depending on the outcome, Chugai will seek for additional indications in Japan.

About Omnitarg

Omnitarg is a recombinant humanized monoclonal antibody which blocks the ability of human epidermal growth factor type 2 (HER2) receptor to partner with other HER receptor group members (HER1/EGFR, HER3, and HER4). As a result, cell signaling within cancer cells is blocked, which ultimately leads to cancer cell growth inhibition regardless of the HER2 expression.

Chugai plans to start phase I clinical trials for Omnitarg next year for the target indications of non-small cell lung cancer, breast cancer, prostate cancer and ovarian cancer. Omnitarg is currently under joint development by Genentech and Roche in the United States and Europe. In the United States, its safety has been confirmed in the phase I clinical trials and its efficacy has been shown in the patients studied. The phase II clinical trials have commenced for breast, non-small-cell lung, prostate, and ovarian cancers with low HER2 expression.

Product Launch and NHI Drug Price Listing of Pegasys in Japan

Chugai announced that it had launched Pegasys for the treatment of chronic hepatitis C infection, following its listing on the National Health Insurance (NHI) drug reimbursement price list. Pegasys was approved in Japan on October 16, 2003 under the fast track review process and was launched on December 12th 2003 just after a year from its filing.

In Japan about 400,000 to 500,000 people with hepatitis C infection have been on therapy and there are between 30,000 and 40,000 patients each year who receive interferon treatments for chronic hepatitis C infection. In addition to these numbers it is estimated that there are 1.5 million carriers of the hepatitis C virus. Pegasys is Japan's first approved pegylated interferon and patients now have the option to choose an efficacious hepatitis C treatment with a more convenient once-weekly dosage.

Pegasys was developed by Roche and was approved in Switzerland in July 2001. Since then, it has been approved as a treatment for chronic hepatitis C in 86 counties including the EU and United States. In these countries, Pegasys has already gained significant market share (over 50% of new prescriptions in the US) due to its higher cure rates compared to conventional interferon therapy.

About Roche

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About Chugai

Chugai Pharmaceutical Co., Ltd. is one of Japan's leading research-based pharmaceutical companies with strengths in biotechnology products and in the therapeutic fields of oncology, renal diseases, cardiovascular diseases, bone/joint diseases and transplantation/infection/immunity. With pharmaceutical sales of 237 billion yen in 2002, Chugai has invested in research and development capabilities in the US and Europe, and has established sales and marketing operations in France, Germany and the UK. Chugai employs 5,774 employees world-wide.

Chugai has continued to contribute to the medical community by drawing on its strengths in oncology, which is one of its strategic therapeutic field, through its long-standing experience in the development and marketing of anti-cancer drugs such as Xelode, Herceptin, Furtulon and Rituxan in addition to supportive treatments such as the G-CSF, Neutrogin and anti-emetic drug, Kytril. By adding the novel antibody drugs Avastin and Omnitarg to its anti-cancer product portfolio, Chugai's strengths in the oncology field are further enhanced, and will greatly contribute to the field

of cancer treatment.

These licensing events of the two drugs is the successful result of the collaboration between Chugai, Roche, and Genentech and Chugai will continue to contribute to the unmet needs of the medical community by creating innovative new drugs by uniting the research and development resources of the three companies.

About Genentech

Genentech is a leading biotechnology company that discovers, develops, manufactures and commercializes biotherapeutics for significant unmet medical needs. Sixteen of the currently approved biotechnology products originated from or are based on Genentech science. Genentech manufactures and commercializes 11 biotechnology products in the United States. The company has headquarters in South San Francisco, California and is traded on the New York Stock Exchange under the symbol DNA. For additional information about the company, please visit http://www.gene.com.