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ACTEMRA(tocilizumab) filed in the US for Prevention of Structural Joint Damage and Improvement of Physical Function in Rheumatoid Arthritis

Roche (SIX: RO, ROG; OTCQX: RHHBY) announced today that it has submitted a supplemental Biologics License Application (sBLA) to the United States (US) Food and Drug Administration (FDA) for ACTEMRA (tocilizumab, RoACTEMRA in the European Union) for the prevention of structural joint damage and to improve physical function in adults with moderately to severe active rheumatoid arthritis (RA).

ACTEMRA was approved by the FDA on January 8, 2010 as the first interleukin-6 (IL-6) receptor-inhibiting monoclonal antibody to treat RA in adult patients after an inadequate response to at least one other medicine called a tumor necrosis factor (TNF) antagonist. RoACTEMRA was approved in the European Union in January 2009 for the treatment of RA in patients who have either responded inadequately to, or who were intolerant to, previous therapy with one or more DMARDs or TNF inhibitors. In September 2009 Roche submitted a filing to the European health authorities (the European Medicines Agency) to extend the indication of RoACTEMRA to inhibit the progression of joint damage and to improve physical function in patients with RA.

The US FDA application is based on positive results from the phase III LITHE¹ trial which showed that patients receiving ACTEMRA in combination with methotrexate (MTX) had significantly less damage to their joints at two years, compared to patients who received MTX alone. The outcome was determined by x-rays which measured over time the progression of bone erosions and narrowing of joint spaces. The data showed that with long-term use, patients with rheumatoid arthritis treated with ACTEMRA 8mg/kg plus MTX suffered 81% less damage to their joints compared to those treated in the control group at Week 104.

The LITHE study also showed that patients who received either dose of ACTEMRA plus methotrexate showed significant improvement in physical function, compared with patients who received methotrexate plus placebo at Weeks 52 and 104, as measured by the mean area under the curve (AUC) of the Health Assessment Questionnaire Disability Index (HAQ-DI)ⁱ change from baseline.

"These data suggest that in addition to reducing the painful signs and symptoms of RA, ACTEMRA inhibits the progression of the disease by reducing long-term joint damage and improves physical function which are important goals of treating this chronic, debilitating disease," said Hal Barron, M.D., executive vice president, Global Development and chief medical officer.

About the LITHE (TociLlzumab Safety and <u>THE</u> Prevention of Structural Joint Damage) study

The LITHE study, a randomised, double-blind, placebo-controlled trial was designed to evaluate the efficacy of TCZ plus MTX in preventing structural joint damage and improving physical function over two years. LITHE was an international study, including 15 countries and 1196 patients with moderate to severe RA who had an inadequate response to MTX. In this randomised study, patients received either ACTEMRA (4 mg/kg or 8 mg/kg, one infusion every four weeks) in combination with MTX or MTX alone. Results from the 24-month analysis showed that at 104 weeks, total Genant-modified Sharp Score change from baseline for the ACTEMRA 8mg + MTX, 4mg +MTX, and MTX alone groups were: 0.37, 0.58 and 1.96 respectively. The HAQ-DI AUC change from baseline, adjusted mean scores were: -144.1, -128.4 and -58.1 respectively at Week 52.¹

About ACTEMRA

ACTEMRA is the first humanised IL-6 receptor-inhibiting monoclonal antibody. An extensive clinical development programme of five Phase III trials was designed to evaluate clinical findings of ACTEMRA, all of which met their primary endpoints. ACTEMRA was first approved in Japan, and launched by Chugai in June 2005 as a therapy for Castleman's disease; in April 2008, additional indications for RA, juvenile idiopathic arthritis and systemic-onset juvenile idiopathic arthritis were also approved in Japan. It is also approved for use in several other countries, including Mexico, India, Brazil, Switzerland, Australia and the United Arab Emirates (UAE).

The overall safety profile of ACTEMRA is consistent across all global clinical studies. The serious adverse reactions reported in ACTEMRA clinical studies include serious infections, gastrointestinal perforations and hypersensitivity reactions including anaphylaxis. The most common adverse reactions reported in clinical studies were upper respiratory tract infection, nasopharyngitis, headache, hypertension and increased ALT. The increases in liver enzymes that were seen in patients were generally mild and reversible and did not result in apparent permanent or clinically evident hepatic injury. Laboratory changes, including increases in lipids (total cholesterol, LDL, HDL, triglycerides) and decreases in neutrophils and platelets, were seen in some patients without association with clinical outcomes.

About Roche

Headquartered in Basel, Switzerland, Roche is a leader in research-focused healthcare with combined strengths in pharmaceuticals and diagnostics. Roche is the world's largest biotech company with truly differentiated medicines in oncology, virology, inflammation, metabolism and CNS. Roche is also the world leader in in-vitro diagnostics, tissue-based cancer diagnostics and a pioneer in diabetes management. Roche's personalised healthcare strategy aims at providing medicines and diagnostic tools that enable tangible improvements in the health, quality of life and survival of patients. In 2009, Roche had over 80'000 employees worldwide and invested almost 10 billion Swiss francs in R&D. The Group posted sales of 49.1 billion Swiss francs. Genentech, United States, is a wholly owned member of the Roche Group. Roche has a majority stake in Chugai Pharmaceutical, Japan. For more information: <u>www.roche.com</u>.

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References:

 LITHE: Tocilizumab inhibits radiographic progression and improves physical function in rheumatoid arthritis (RA) patients (Pts) at 2 years with increasing clinical efficacy over time. Fleischmann, R et al. Oral presentation at ACR, 18th October 2009

ⁱ The Health Assessment Questionnaire Disability Index (HAQ-DI) is a 20-item questionnaire that asks about physical functioning within eight categories (dressing and grooming, arising, eating, walking, hygiene, reach, grip and daily activities). The ability to perform each category is measured on a scale 0 to 3 (0 = no difficulty, 1 = some difficulty, 2 = much difficulty or with assistance, and 3 = unable).