EMBARGOED UNTIL: Wednesday 14 June 2017, 00:01 CEST

FOR MEDICAL AND TRADE MEDIA ONLY

Press Release

Media Contacts
Emily Bone
+44 (0)7876 394360
ebone1@its.jnj.com

Brian Kenney
+1 215-628-7010
bkenney1@its.jnj.com

Investor Contacts
Lesley Fishman
Johnson & Johnson
+1 732-524-3922

Joseph J. Wolk
Johnson & Johnson
+1 732-524-1142

JANSSEN PRESENTS LONG TERM PHASE 3 EFFICACY AND SAFETY DATA OF SIRUKUMAB IN RHEUMATOID ARTHRITIS PATIENTS WHO HAD AN INADEQUATE RESPONSE AND/OR WHO WERE INTOLERANT TO ANTI-TNFs

Sirukumab Phase 3 Data Presented at the Annual European Congress of Rheumatology (EULAR) 2017 also Show Significant Improvement in Quality of Life Measures

Madrid, Spain, 14 June 2017—Janssen-Cilag International NV (Janssen) today announced long-term results from SIRROUND-T*, a pivotal Phase 3 study that showed sirukumab improved the signs and symptoms of moderately to severely active rheumatoid arthritis (RA) through 52 weeks of treatment in adult patients with an inadequate response and/or intolerance to anti-tumour necrosis factor (TNF)-alpha treatments.[1] This is a typically difficult-to-treat population, representative of clinical practice where up to 40% of RA patients do not respond to biologics.[2] This study and other data from the SIRROUND clinical programme will be presented in 11 abstracts accepted for presentation at the Annual European Congress of Rheumatology (EULAR) 2017 in Madrid, Spain.

Data from the SIRROUND-T* study showed that more than half of patients receiving either sirukumab 50 mg or 100 mg achieved at least a 20% improvement in the signs and symptoms of disease (ACR20) at week 52 (54.3% sirukumab 50 mg; 59.3% sirukumab 100 mg).[1] Patients receiving sirukumab also demonstrated clinically meaningful improvements from baseline through week 52 in quality of life measures, as demonstrated by the health assessment questionnaire disability index (HAQ-DI) and the short form-36 (SF-36) health survey, for patient-reported outcomes in both physical and emotional well-being.[1]

The incidences of adverse events (AEs) and serious AEs were comparable between sirukumab 50 mg (79.6% and 14.2%, respectively) and sirukumab 100 mg (81.3% and 13.2%, respectively).

"*The long-term efficacy of sirukumab as shown in the SIRROUND-T study is encouraging considering the study includes a difficult-to-treat patient population. More than 60 percent of patients in the trial had previously received two or more biologics, including anti-TNFs and treatments with other mechanisms of action. This is representative of real world clinical practice,*" commented Professor Daniel Aletaha, Consultant Rheumatologist and Associate Professor at the Medical University of Vienna. "*Rheumatoid arthritis can be a very heterogeneous disease and therefore additional therapeutic options, like sirukumab, are needed*."

In a post-hoc analysis from four sirukumab Phase 3 studies** presented at the congress, investigators reported that treatment with sirukumab consistently increased levels of haemoglobin in adult patients with moderately to severely active RA, thus reducing by week 16 the proportion of patients with anaemia, which is common in rheumatoid arthritis.[3]

Two additional poster presentations evaluated improvements in Health-Related Quality of Life (HRQoL) compared with an age/gender matched normal population in patients with RA and an inadequate response to conventional disease-modifying anti-rheumatic drugs (DMARDS) and anti-TNFs (SIRROUND-D and SIRROUND-T Phase 3 studies, respectively). The post-hoc analyses found that treatment with sirukumab resulted in greater and clinically meaningful improvements in HRQoL at week 24 compared with patients receiving placebo ($P<0.001$), with similar results observed across sirukumab doses (50 mg every 4 weeks and 100 mg every 2 weeks).[4,5]

An oral presentation of a post-hoc analysis (SIRROUND-D) highlighted the effect of sirukumab plus methotrexate on circulating biomarkers and demonstrated that in addition to inhibiting radiographic progression (bone destruction measured on x-ray images), treatment with sirukumab strongly inhibited biomarkers of bone and tissue destruction, and enhanced markers of bone formation.[6]

"*The data presented at this year's congress support the profile of sirukumab in the treatment of moderately to severely active adult rheumatoid arthritis. While patient outcomes have improved in the last few decades with the advent of new RA treatments, there are still many patients whose disease is not effectively managed and continues to progress. We believe that sirukumab has the potential to offer an important new alternative treatment for patients*," said Bogdana Coudsy MD, European Medical Affairs Director Immunology, Janssen EMEA.

**SIRROUND-T: Efficacy and Safety of Sirukumab in Patients with Active Rheumatoid Arthritis Despite Anti-TNF Therapy*[1,7]

The Phase 3 SIRROUND-T trial is a randomised, double-blind, placebo-controlled study that included 878 adult patients with an inadequate response and/or intolerance to anti-TNF-alpha therapy, more than 39% of whom had prior exposure to non-TNF-alpha biologic therapies. Patients were randomised evenly to receive sirukumab 50 mg every 4 weeks or sirukumab 100 mg every 2 weeks or placebo (patients on placebo were re-randomised at week 24 to receive sirukumab 50 mg every 4 weeks or 100 mg every 2 weeks). 54.3% of

patients receiving sirukumab 50 mg every 4 weeks and 59.3% receiving sirukumab 100 mg every 2 weeks, achieved at least a 20% improvement in ACR response criteria at week 52. Patients receiving sirukumab achieved clinically meaningful improvements in patient-reported outcomes as measured by change from baseline in the Health Assessment Questionnaire Disability Index (HAQ-DI): sirukumab 50 mg -0.36 (standard deviation, SD=0.57) and sirukumab 100 mg -0.43 (SD=0.57). Short form-36 (SF-36) summary scores were: sirukumab 50 mg: physical component summary (PCS)=5.69, mental component score (MCS)=4.65; sirukumab 100 mg PCS=5.80, MCS=4.85.

The most common AEs were injection-site reactions and alanine aminotransferase increases. Malignancies occurred in <3% of the sirukumab 50 mg and 100 mg treated population and major adverse cardiac events (MACE) occurred in <2% of the sirukumab 50 mg and 100 mg treated population.

****About the SIRROUND Clinical Programme**

The Phase 3 clinical programme in patients with active RA includes five studies investigating subcutaneously administered sirukumab 50 mg every 4 weeks and sirukumab 100 mg every two weeks in combination with conventional disease-modifying antirheumatic drugs (DMARDs) or as monotherapy. The comprehensive development programme – the largest conducted for an anti-IL-6 biologic therapy – involves more than 3,100 patients encompassing the following five studies:

- SIRROUND-D study: patients who had an inadequate response to DMARDs. This study has completed.
- SIRROUND-T study: patients who had an inadequate response or were intolerant to anti-TNF-alpha agents. This study has completed and data was published in *The Lancet* in February 2017.
- SIRROUND-H study: patients with an inadequate response or who were intolerant to MTX or for whom MTX was inappropriate. This study has completed.
- SIRROUND-M study: Japanese patients who had an inadequate response to MTX or sulfasalazine. This study has completed.
- SIRROUND-LTE study: a long-term extension study for patients completing SIRROUND-D and SIRROUND-T. This study is estimated to complete in 2020.

Sirukumab is not being investigated for the treatment of anaemia.

About Sirukumab

Sirukumab is a fully human monoclonal IgG1 kappa antibody that selectively blocks circulating IL-6, a naturally occurring protein that is believed to play a role in autoimmune conditions like RA. It is not approved as a treatment for rheumatoid arthritis or any other indication anywhere in the world. Sirukumab is different from other interleukin (IL)-6 inhibitors currently approved for the treatment of RA as it targets the IL-6 cytokine, whereas other agents target the IL-6 receptor.

In December 2011, Janssen and GSK entered into a licensing and co-development agreement with respect to sirukumab. Under the terms, Janssen retains exclusive rights to commercialise sirukumab in Europe, the Middle East, Africa and Asia Pacific, while GSK has commercialisation rights in North, Central and South America. The agreement gives both companies the option to investigate sirukumab for other indications

beyond RA. Sirukumab is currently being evaluated by health authorities in Europe, the US and Japan as a subcutaneous therapy for the treatment of adult patients with moderately to severely active rheumatoid arthritis.

About Rheumatoid Arthritis

Rheumatoid arthritis is a chronic, systemic inflammatory condition that is characterised by pain, joint swelling, stiffness and loss of function[8]; it can lead to rapid irreversible joint destruction, permanent disability and increased mortality.[9] It is estimated that approximately 6.2 million Europeans are affected by the condition, for which there is no cure.[10]

In clinical studies patient-reported outcomes are measured by a number of self-assessed tools. The SIRROUND clinical programme included SF-36 and HAQ-DI. The short-form 36 (SF-36) survey is a patient-reported health quality assessment which assesses eight aspects of health ranging from physical limitations to general perceptions of vitality and mental well-being. As a general health assessment tool, it is often paired with a disease-specific assessment tool. The Health Assessment Questionnaire Disability Index (HAQ-DI) is a questionnaire for the assessment of rheumatoid arthritis. The questionnaire is a patient-reported outcome (PRO) which is usually self-administered by the patient.

About the Janssen Pharmaceutical Companies

At the Janssen Pharmaceutical Companies of Johnson & Johnson, we are working to create a world without disease. Transforming lives by finding new and better ways to prevent, intercept, treat and cure disease inspires us. We bring together the best minds and pursue the most promising science. We are Janssen. We collaborate with the world for the health of everyone in it. Learn more at www.janssen.com/EMEA. Follow us at Twitter.com/JanssenEMEA.

Cautions Concerning Forward-Looking Statements

This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding the potential of sirukumab and expectations for its further development. The reader is cautioned not to rely on these forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or known or unknown risks or uncertainties materialise, actual results could vary materially from the expectations and projections of Janssen-Cilag International NV, any of the other Janssen Pharmaceutical Companies and/or Johnson & Johnson. Risks and uncertainties include, but are not limited to: challenges and uncertainties inherent in product research and development, including the uncertainty of clinical success and of obtaining regulatory approvals; uncertainty of commercial success; competition, including technological advances, new products and patents attained by competitors; challenges to patents; manufacturing difficulties or delays; product efficacy or safety concerns resulting in product recalls or regulatory action; changes to applicable laws and regulations, including global health care reforms; and trends toward health care cost containment. A further list and descriptions of these risks, uncertainties and other factors can be found in Johnson & Johnson's Annual Report on Form 10-K for the fiscal year ended January 1, 2017, including under "Item 1A. Risk Factors," its most recently filed Quarterly Report on Form 10-Q, including under the caption "Cautionary Note Regarding Forward-Looking Statements," and the company's subsequent filings with the Securities and Exchange Commission. Copies of these filings

are available online at www.sec.gov, www.jnj.com or on request from Johnson & Johnson. None of the Janssen Pharmaceutical Companies or Johnson & Johnson undertakes to update any forward-looking statement as a result of new information or future events or developments.

# # #

References

[1] Aletaha, D., et al. Efficacy and safety of sirukumab in patients with active rheumatoid arthritis refractory to anti-TNF therapy (SIRROUND-T): a randomised, double-blind, placebo-controlled, parallel-group, multinational, phase 3 study. *Lancet*. 2017 Mar 25;389(10075):1206-1217.

[2] Rubbert-Roth, A., Finckh, A. Treatment options in patients with rheumatoid arthritis failing initial TNF inhibitor therapy: a critical review. *Arthritis Research & Therapy*. 2009;11(Suppl1):S1.

[3] Loza, M., et al. Sirukumab Treatment Reduces Levels of Iron-Regulatory Proteins and Ameliorates Inflammation-Associated Anemia in Rheumatoid Arthritis Patients. Abstract presented at the Annual European Congress of Rheumatology (EULAR) 2017 in Madrid, Spain. Abstract number: FRI0243.

[4] Strand, V., et al. Sirukumab Leads To Significant And Clinically Meaningful Improvements In Health-Related Quality Of Life That Meet Or Exceed Normative Values In Patients With Rheumatoid Arthritis Refractory To TNF Inhibitors In Post Hoc Analyses Of A Phase 3 Trial. Abstract presented at the Annual European Congress of Rheumatology (EULAR) 2017 in Madrid, Spain. Abstract number: SAT0182.

[5] Strand, V., et al. Improvements In Health-Related Quality Of Life With Sirukumab Are Statistically Significant, Clinically Meaningful, And Meet Or Exceed Normative Values In Rheumatoid Arthritis Patients With Inadequate Response To Disease-Modifying Antirheumatic Drugs: Post Hoc Analyses Of A Phase 3 Trial. Abstract presented at the Annual European Congress of Rheumatology (EULAR) 2017 in Madrid, Spain. Abstract number: FRI0246.

[6] Dasgupta, B., et al. The Effect Of Sirukumab Plus Methotrexate On Circulating Biomarkers Of Joint Destruction In Moderate To Severe Rheumatoid Arthritis Patients From The SIRROUND-D Phase 3 Study. Abstract presented at the Annual European Congress of Rheumatology (EULAR 2017) in Madrid, Spain. Abstract number: OP0103.

[7] Tanaka, Y., et al. Efficacy of Sirukumab, an Anti–IL-6 Cytokine Monoclonal Antibody, Based upon Prior Use of Non-Anti-TNF Biologics in Patients with Active Rheumatoid Arthritis Despite Anti-TNF Therapy: Results from a Global Phase 3 Study, Annual Meeting of the American College of Rheumatology/Association for Rheumatology Health Professionals Meeting (ACR/ARHP 2016), Abstract 59315.

[8] Suresh E. Diagnosis of early rheumatoid arthritis: what the non-specialist needs to know. *Journal of the Royal Society of Medicine*. 2004;97(9):421-424.

[9] Kavuncu, V., Evcik, D. Physiotherapy in Rheumatoid Arthritis. *Medscape General Medicine*. 2004;6(2):3.

[10] World Health Organization. "The Global Burden of Disease: 2004 Update," p. 32. Available at: http://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf. Accessed 08 November 2016.