Johnson&Johnson

NEWS RELEASE

Nipocalimab demonstrates significant clinical improvement in disease activity and IgG reduction in Phase 2 Sjögren's disease study

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Adults with moderately-to-severely active Sjögren's disease who received investigational FcRn blocker nipocalimab had improvements in disease activity scores at 24 weeks with accompanying significant reductions in IgG and autoantibody levels

Nipocalimab was granted U.S. FDA Breakthrough Therapy Designation for the treatment of adults living with moderate-to-severe Sjögren's disease based on results from the Phase 2 DAHLIAS study

WASHINGTON, Nov. 14, 2024 /PRNewswire/ -- Johnson & Johnson (NYSE: JNJ) today announced results from additional analyses of the Phase 2 DAHLIAS study highlighting improvement in key measures of disease activity and significant IgG reduction by over 77% following treatment with investigational nipocalimab in adult patients with moderate-to-severe Sjögren's disease (SjD). These data were included in a plenary session presentation (Abstract #2527) and two posters (Abstracts #1427 and #2294) and are among the Company's 43 oral and poster presentations at the American College of Rheumatology (ACR) Convergence 2024.

Patients receiving nipocalimab, an investigational FcRn blocker, showed a significant improvement in the ClinESSDAI[a] score at 24 weeks, achieving the primary endpoint. Additionally, key secondary endpoints were met, indicating reduced disease activity both systemically and across multiple organ systems, as well as improvements in physician assessments and composite SjD assessment tools.

Results also showed a significant reduction in IgG including autoantibody levels among patients receiving 15 mg/kg every two weeks, providing further evidence of nipocalimab's mechanism of action through interaction with the

FcRn. Moreover, improvements in ClinESSDAI were generally greatest in the participants with the highest baseline levels of anti-Ro and anti-La autoantibodies, associated with substantial nipocalimab-induced reductions in IgG and total IgG autoantibodies.

"These data highlight the relevance of autoantibodies in SjD pathogenesis. The observed reduction in IgG and pivotal autoantibodies, particularly the anti-Ro antibodies, in association with improvement in systemic disease activity and saliva production, represent an exciting advance in our understanding of the disease and how it may be treated effectively. I am also encouraged by the observed trend in many patient-reported measures as they are most important to patients. I look forward to future research to confirm these observations," said Ghaith Noaiseh, M.D., Associate Professor, Allergy, Clinical Immunology, and Rheumatology, The University of Kansas Medical Center.[b] "People living with SjD need targeted treatment options that can help address the underlying causes and alleviate the potentially serious health consequences of the disease."

Many people living with SjD experience symptoms that interfere with daily activities and quality of life, including chronic and severe mucosal dryness.[1,2] Extraglandular manifestations – more systemic symptoms of SjD – are also common and may impact multiple organ systems, including joints, lungs, kidneys, and nervous system.[3] These patients with high activity in more than one organ or disease area have an increased mortality risk of up to five-fold.[4]

In the Phase 2 study, patients reported a decrease in symptoms, with numerical improvements compared with placebo in the symptom categories most important to them, including mouth dryness, eye dryness, vaginal dryness, fatigue and joint pain. Additionally, an improvement in objective salivary flow (i.e., at least 50% increase from baseline) was observed in more than twice as many patients in the high dose nipocalimab group (15 mg/kg) compared to the placebo group (32.7% vs. 16%) at Week 24.

"No advanced therapies have been approved for SjD to date. A clear need exists for new immunoselective treatments with demonstrated safety profiles that can provide sustained relief from the heavy burden of the overall disease for patients living with SjD," said Federico Zazzetti, Director, Rheumatology, Global Medical Affairs Lead, Johnson & Johnson Innovative Medicine. "Johnson & Johnson is committed to continued research to help address this unmet need, and the data presented at ACR demonstrate the potential of nipocalimab in a disease where patients have very few options."

Editor's Notes:

A. ClinESSDAI is an endpoint specific to SjD and is a composite scale that assesses organ disease activity across 11 organ system domains

[cutaneous, pulmonary, renal, articular, muscular, peripheral nervous system (PNS), central nervous system (CNS), hematological, glandular, constitutional, lymphadenopathy and lymphoma]; a higher score indicates greater symptom severity.

B. Ghaith Noaiseh, M.D., Ph.D. is a paid consultant for Johnson & Johnson. He has not been compensated for any media work.

ABOUT SJÖGREN'S DISEASE

Sjögren's disease (SjD) is one of the most prevalent autoantibody-driven diseases for which no therapies are currently approved that treat the underlying and systemic nature of the disease.[4] It is a chronic autoimmune disease that is estimated to impact approximately four million people worldwide and is nine times more common in women than men.[5,6] SjD is characterized by autoantibody production, chronic inflammation, and lymphocytic infiltration of exocrine glands. Most patients are affected by mucosal dryness (eyes, mouth, vagina), joint pain and fatigue.[4] More than 50% of SjD patients have a moderate to severe form of the condition, and disease burden can be as high as that of rheumatoid arthritis or systemic lupus erythematosus and is often associated with impaired quality of life and functional capacity, and increased mortality risk.[3,5,7]

ABOUT DAHLIAS

DAHLIAS (**NCT04969812**) is a Phase 2 multicenter, randomized, placebo-controlled double-blind study to evaluate the effects of nipocalimab in participants with primary SjD. DAHLIAS is a Phase 2 dose-ranging study of adults with moderately-to-severely active primary SjD who were seropositive for anti-Ro60 and/or anti-Ro52 IgG antibodies. 163 adults aged 18-75 were randomized 1:1:1 to receive intravenous nipocalimab at 5 or 15 mg/kg or placebo every two weeks through Week 22 and received protocol-permitted background standard of care. Safety assessments were conducted through Week 30. The primary endpoint was change in baseline in the ClinESSDAI Score at Week 24. Select secondary endpoints included:

- Multiple organ system assessments:
  - European League Against Rheumatism Sjögren's Syndrome Disease Activity Index (ESSDAI) is a systemic diseases activity index designed to measure disease activity in patients with primary SjD. It is based on 12 domains including: constitutional, lymphadenopathy, glandular, articular, cutaneous, respiratory, renal, muscular, peripheral nervous system, central nervous system, biological, and hematological.
  - Disease Activity Level (DAL) response is a reduction from baseline in disease activity level by at least one level in at least one ClinESSDAI domain (e.g., articular, hematological, cutaneous, constitutional).
- Physician assessment:
  - The Physician Global Assessment of Disease Severity (PhGA) is recorded by the investigator, independent of study participants' assessment, on a scale with responses ranging from 0 ("No SjD

activity") to 100 ("Extremely active SjD").

- Composite tools for clinical trial endpoints:
  - Sjögren's Tool for Assessing Response (STAR) is a composite responder index that includes all main SjD features, including systemic disease activity, patient-reported symptoms, tear gland item, salivary gland item and serology, in a single tool.
  - Composite of Relevant Endpoints for Sjogren's Syndrome (CRESS), a composite endpoint tool consisting of five complementary items: systemic disease activity, patient-reported symptoms, tear gland item, salivary gland item and serology, for use in trials of primary SjD.
- Patient reported outcomes:
  - European League Against Rheumatism Sjögren's Syndrome Patient-Reported Index (ESSPRI) is a patient-reported assessment of the severity of dryness, fatigue, and pain associated with primary SjD, in which patients report their symptom severity over the last two weeks on a numeric rating scale (NRS), ranging from 0 "No symptoms (dryness, fatigue or pain)" to 10 "maximal imaginable (dryness, fatigue, pain)".
  - Sjögren's Symptoms tool is a patient-reported assessment of the worst severity of their ocular, oral, and vaginal dryness and joint pain over the past 7 days on a 0 to 10 NRS, from 0 "No [specific symptom]" to 10, "Severe [specific symptom]".

ABOUT NIPOCALIMAB

Nipocalimab is an investigational monoclonal antibody, designed to bind with high affinity to block FcRn and reduce levels of circulating immunoglobulin G (IgG) antibodies potentially without impact on other immune functions. This includes autoantibodies and alloantibodies that underlie multiple conditions across three key segments in the autoantibody space including Rare Autoantibody diseases, Maternal Fetal diseases mediated by maternal alloantibodies and Prevalent Rheumatology.[8,9,10,11,12,13,14,15,16] Blockade of IgG binding to FcRn in the placenta is also believed to limit transplacental transfer of maternal alloantibodies to the fetus.[17,18]

The U.S. Food and Drug Administration (FDA) and European Medicines Agency (EMA) have granted several key designations to nipocalimab including:

- U.S. FDA Fast Track designation in hemolytic disease of the fetus and newborn (HDFN) and warm autoimmune hemolytic anemia (wAIHA) in July 2019, gMG in December 2021 and fetal neonatal alloimmune thrombocytopenia (FNAIT) in March 2024
- U.S. FDA Orphan drug status for wAIHA in December 2019, HDFN in June 2020, gMG in February 2021, chronic inflammatory demyelinating polyneuropathy (CIDP) in October 2021 and FNAIT in December 2023
- U.S. FDA Breakthrough Therapy designation for HDFN in February 2024 and for SjD in November 2024
- EU EMA Orphan medicinal product designation for HDFN in October 2019

ABOUT JOHNSON & JOHNSON

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Cautions Concerning Forward-Looking Statements

This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding product development and the potential benefits and treatment impact of nipocalimab. 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 materialize, actual results could vary materially from the expectations and projections of Janssen Research & Development, LLC, Janssen Biotech, Inc., Janssen Global Services, LLC 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; manufacturing difficulties and delays; competition, including technological advances, new products and patents attained by competitors; challenges to patents; product efficacy or safety concerns resulting in product recalls or regulatory action; changes in behavior and spending patterns of purchasers of health care products and services; 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 December 31, 2023, including in the sections captioned "Cautionary Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors," and in Johnson & Johnson's subsequent Quarterly Reports on Form 10-Q and other 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 Janssen Research & Development, LLC, Janssen Biotech, Inc., Janssen Global Services, LLC nor Johnson & Johnson undertakes to update any forward-looking statement as a result of new information or future events or developments.

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