More than 30 Presentations of New Investigational Data from Sanofi Genzyme's Multiple Sclerosis Franchise to be Featured at ECTRIMS-ACTRIMS

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Contacts:
Erin Pascal
Sanofi Genzyme

Sanofi Genzyme, the specialty care global business unit of Sanofi, announced today that new investigational data on its marketed treatments for relapsing multiple sclerosis (MS), Lemtrada® (alemtuzumab) and Aubagio® (teriflunomide), will be presented during the 7th joint Meeting of the European and Americas Committees for Research and Treatment in Multiple Sclerosis (ECTRIMS-ACTRIMS). The meeting, being held in Paris October 25 – 28, will also include presentations of data from the Phase I study of the investigational treatment GLD52 (GZ402668).

"Lemtrada and Aubagio play important roles in the treatment of relapsing MS, and we look forward to presenting new long-term and real-world data at ECTRIMS to help deepen the MS community's understanding of these two therapies," said Tom Snow, Sanofi Genzyme's Global Head of Multiple Sclerosis. "In addition, we are continuously working to advance MS treatment and care with research efforts focused on unmet needs for relapsing and progressive forms of the disease."

Data presentations are as follows. All abstracts are available on the ECTRIMS website.

Lemtrada:

- Alemtuzumab reduced MRI (magnetic resonance imaging) lesions and slowed brain volume loss in CARE-MS II patients switching from SC IFNB-1a (subcutaneous interferon beta-1a): 5-year follow-up after alemtuzumab (TOPAZ study) (Poster Session 1, P724; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)
- Patients with active RRMS (relapsing remitting multiple sclerosis) experience durable reductions in MRI disease activity and slowing of brain volume loss with alemtuzumab: 7-year follow-up of CARE-MS II patients (TOPAZ study) (Poster Session 1, P741; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)
- Pregnancy outcomes in patients with RRMS treated with alemtuzumab from the clinical development program (Poster Session 1, P749; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)
- Alemtuzumab decreased MRI disease activity and slowed brain volume loss over 5 years after switching from SC IFNB-1a: follow-up of CARE-MS I (TOPAZ study) (Poster Session 1, P728; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)
- Durable improvements in clinical outcomes with alemtuzumab in patients with active RRMS in the absence of continuous treatment: 7-year follow-up of CARE-MS II patients (TOPAZ study) (Poster Session 1, P736; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)
- Efficacy of a third course of alemtuzumab in patients with active RRMS who experienced disease activity after the initial two courses: pooled analysis of CARE-MS I and II (Poster Session 1, P727; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)
- Durable reduction in MRI disease activity and slowing of brain volume loss with alemtuzumab in patients with active RRMS: 7-year follow-up of CARE-MS I patients (TOPAZ study) (Poster Session 2, P1189; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)
- Alemtuzumab durably improves clinical outcomes in patients with active RRMS in the absence of continuous treatment: 7-year follow-up of CARE-MS-I patients (TOPAZ study) (Poster Session 2, P1188; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)
- Alemtuzumab-treated patients with RRMS show low rates of conversion to secondary progressive MS: 6-year follow-up of CARE-MS I and II (Poster Session 2, P1195; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)
- Alemtuzumab demonstrated durable efficacy and safety in CARE-MS I patients switching from SC IFNB-1a: 5-year follow-up after alemtuzumab (TOPAZ study) (Poster Session 2, P1190; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)
- Alemtuzumab efficacy and safety were durable over 5 years after switching from SC IFNB-1a: follow-up of patients from CARE-MS II (TOPAZ study) (Poster Session 2, P1195; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)
- Long-term improvement in clinical outcomes in alemtuzumab-treated RRMS patients who relapsed between courses 1 and 2 (CARE-MS I) (Poster Session 2, P1204; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)
Clinical and economic evaluation of alemtuzumab compared to ocrelizumab in the treatment of relapsing forms of multiple sclerosis in the United States: A payer perspective (ePoster: EP1683)

Early MRI findings during disease rebound in a natalizumab-treated MS patient and follow-up during transition to alemtuzumab (ePoster: EP1803)

Low rates of disease-modifying therapy initiation and switching after steroid treatment of patients with MS: treatment patterns from a US retrospective claims-based study (ePoster: EP1812)

Real world evidence of patients treated with alemtuzumab in Canada (ePoster: EP1701)

Observational study to evaluate real-world effectiveness in multiple sclerosis patients treated with alemtuzumab in Germany: TREAT-MS study preliminary results (ePoster: EP1680)

Impact of alemtuzumab on work capacity based upon evidence from the CARE-MS II study (ePoster: EP1713)

Aubagio:

Evaluation of the Long-term Treatment Effect of Teriflunomide on Cognitive Outcomes and Association With Brain Volume Change: Data From TEMSO and its Extension Study (Poster Session 1, P685; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)

Evaluation of Teriflunomide in Children and Adolescents With Relapsing MS: TERIKIDS Phase 3 Study Design, Enrolment Update, and Baseline Data (Poster Session 1, Thursday, P321; October 26, 2017; 3:30-5:00 p.m. CEST)

Effect of Teriflunomide on Lymphocyte Counts and Infections Over the Long-term in the Pooled TEMSO and TOWER Extension Studies (Poster Session 1, P742; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)

Slowing of Cortical Grey Matter Atrophy With Teriflunomide is Associated With Delayed Conversion to Clinically Definite MS (Poster Session 1, P671; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)

Teriflunomide Use in European Clinical Practice in Patients With Relapsing Forms of Multiple Sclerosis: An Overview of Regional Real-World Studies (Poster Session 1, Thursday, P707; October 26, 2017; 3:30-5:00 p.m. CEST)

In Vitro Data Reveals Potential Novel Mechanism of Action of Teriflunomide on CNS Microglia and Astrocytes (Poster Session 1, Thursday, P706; October 26, 2017; 3:30-5:00 p.m. CEST)

Pregnancy Outcomes in Patients With MS Treated With Teriflunomide: Clinical Study and Post-Marketing Data (Platform Presentation 205; Friday, October 27, 2017 11:52 a.m.-12:04 p.m. CEST)

Long-term Disability Outcomes in Patients Treated With Teriflunomide for up to 14 Years: Group- and Patient-Level Data from the Phase 2 Extension Study (Poster Session 2, P203; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)

Baseline Characteristics and Long-term Disability Outcomes: Subgroup Analysis of the TEMSO and TOWER Core and Extension Studies (Poster Session 2, P1191; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)

Long-term Outcomes in Patients With Progressive Forms of Relapsing MS Treated With Teriflunomide: Patient-Level Data From the TEMSO and TOWER Extension Studies and the Real-World Setting (ePoster: EP1783)

Long-term Disability Outcomes in Teriflunomide-Treated Patients in TEMSO and TOWER: An EDSS and FSS Categorical Analysis (ePoster: EP1715)

Teriflunomide (Aubagio®) International Pregnancy Registry: Enrolment Update (ePoster: EP1732)

Real-World Treatment Satisfaction With Teriflunomide: Results From the European Cohort of the Phase 4 Teri-PRO Study (ePoster: EP1650)

GLD52:

Safety, tolerability, and pharmacodynamics of intravenous and subcutaneous doses of the anti-CD52 antibody GLD52 in patients with progressive MS: a randomised, controlled, single ascending dose trial (Poster Session 1, P682; Thursday, October 26, 2017; 3:30-5:00 p.m. CEST)

Pharmacodynamics of intravenous and subcutaneous doses of the anti-CD52 antibody GLD52 in patients with progressive MS: effects on innate and adaptive immune cells (Poster Session 2, P1166; Friday, October 27, 2017; 3:30-5:00 p.m. CEST)

About Lemtrada® (alemtuzumab)

Lemtrada is approved in more than 60 countries, with additional marketing applications under review by regulatory authorities globally. Lemtrada is supported by a comprehensive and extensive clinical development program that involved nearly 1,500 patients worldwide and 5,400 patient-years of follow-up. More than 16,000 patients have been treated with Lemtrada commercially worldwide.

The precise mechanism by which alemtuzumab exerts its therapeutic effects in MS is unknown. Alemtuzumab is a monoclonal antibody that targets CD52, a protein abundant on T and B cells. Circulating T and B cells are thought to be responsible for the damaging inflammatory process in MS. Lemtrada depletes circulating T and B lymphocytes after each
treatment course. Lymphocyte counts then increase over time with a reconstitution of the lymphocyte population that varies for the different lymphocyte subtypes.

Sanofi Genzyme holds the worldwide rights to alemtuzumab and has responsibility for its development and commercialization in multiple sclerosis. Bayer Healthcare receives contingent payments based on global sales revenue.

**Lemtrada® (alemtuzumab) U.S. Indication**

LEMTRADA is a prescription medicine used to treat adults with relapsing forms of multiple sclerosis (MS). Because of its risks, LEMTRADA is generally used in people who have tried 2 or more MS medicines that have not worked well enough. It is not known if LEMTRADA is safe and effective for use in children under 17 years of age.

**Do not receive LEMTRADA if you** are infected with human immunodeficiency virus (HIV).

**IMPORTANT SAFETY INFORMATION**

**Serious autoimmune problems:** Some people receiving LEMTRADA develop a condition where the immune cells in your body attack other cells or organs in the body (autoimmunity), which can be serious and may cause death. Serious autoimmune problems may include:

- Immune thrombocytopenia, which is when reduced platelet counts in your blood cause severe bleeding that, if not treated, may cause life-threatening problems. Call your healthcare provider right away if you have any of the following symptoms: easy bruising; bleeding from a cut that is hard to stop; heavier menstrual periods than normal; bleeding from your gums or nose that is new or takes longer than usual to stop; small, scattered spots on your skin that are red, pink, or purple.
- Kidney problems called anti-glomerular basement membrane disease, which can, if untreated, lead to severe kidney damage, kidney failure that needs dialysis, a kidney transplant, or death. Call your healthcare provider right away if you have any of the following symptoms: blood in the urine (red or tea-colored urine); swelling of legs or feet; coughing up blood.

It is important for you to have blood and urine tests before you receive, while you are receiving and every month, for 4 years or longer, after you receive your last LEMTRADA infusion.

**Serious infusion reactions:** LEMTRADA can cause serious infusion reactions that may cause death. Serious infusion reactions may happen while you receive, or up to 24 hours or longer after you receive LEMTRADA.

- You will receive your infusion at a healthcare facility with equipment and staff trained to manage infusion reactions, including serious allergic reactions, and urgent heart or breathing problems. You will be watched while you receive, and for 2 hours or longer after you receive, LEMTRADA. If a serious infusion reaction happens while you are receiving LEMTRADA, your infusion may be stopped.

Tell your healthcare provider right away if you have any of the following symptoms of a serious infusion reaction during the infusion, and after you have left the healthcare facility:

- swelling in your mouth or throat
- fast, slow, or irregular heartbeat
- trouble breathing
- chest pain
- weakness
- rash

To lower your chances of getting a serious infusion reaction, your healthcare provider will give you a medicine called corticosteroids before your first 3 infusions of a treatment course. You may also be given other medicines before or after the infusion to try to reduce your chances of having these reactions or to treat them after they happen.

**Certain cancers:** Receiving LEMTRADA may increase your chance of getting some kinds of cancers, including thyroid cancer, skin cancer (melanoma), and blood cancers called lymphoproliferative disorders and lymphoma. Call your healthcare provider if you have the following symptoms that may be a sign of thyroid cancer:

- new lump
- trouble swallowing or breathing
- swelling in your neck
- cough that is not caused by a cold
- pain in front of neck
- hoarseness or other voice changes that do not go away

**Because of risks of autoimmunity, infusion reactions, and some kinds of cancers, LEMTRADA is only available through a restricted program called the LEMTRADA Risk Evaluation and Mitigation Strategy (REMS) Program.**

Have your skin checked before you start receiving LEMTRADA and each year while you are receiving treatment to monitor for symptoms of skin cancer.

**Thyroid problems:** Some patients taking LEMTRADA may get an overactive thyroid (hyperthyroidism) or an underactive
thyroid (hypothyroidism). Call your healthcare provider if you have any of these symptoms:

- excessive sweating
- unexplained weight gain
- unexplained weight loss
- feeling cold
- eye swelling
- worsening tiredness
- nervousness
- constipation
- fast heartbeat

**Low blood counts (cytopenias):** LEMTRADA may cause a decrease in some types of blood cells. Some people with these low blood counts have increased infections. Call your doctor right away if you have symptoms of cytopenias such as:

- weakness
- dark urine
- chest pain
- fast heartbeat
- yellowing of the skin or whites of the eyes (jaundice)

**Serious infections:** LEMTRADA may cause you to have a serious infection while you receive and after receiving a course of treatment. Serious infections may include:

- **Herpes viral infections.** Some people taking LEMTRADA have an increased chance of getting herpes viral infections. Take any medicines as prescribed by your healthcare provider to reduce your chances of getting these infections.
- **Tuberculosis.** Your healthcare provider should check you for tuberculosis before you receive LEMTRADA.
- **Hepatitis.** People who are at high risk of, or are carriers of, hepatitis B (HBV) or hepatitis C (HCV) may be at risk of irreversible liver damage.
- **Listeria.** People who receive LEMTRADA have an increased chance of getting a bacterial infection called listeria, which if not treated, can lead to death. Avoid foods that may be a source of listeria or make sure foods that may contain listeria are heated well.

These are not all the possible infections that could happen while on LEMTRADA. Call your healthcare provider right away if you have symptoms of a serious infection such as fever or swollen glands. Talk to your healthcare provider before you get vaccinations after receiving LEMTRADA. Certain vaccinations may increase your chances of getting infections.

**Inflammation of the gallbladder without gallstones (acalculous cholecystitis):** LEMTRADA may increase your chance of getting inflammation of the gallbladder without gallstones, a serious medical condition that can be life-threatening. Call your healthcare provider right away if you have any of the following symptoms:

- stomach pain or discomfort
- fever
- nausea or vomiting

**Swelling of lung tissue (pneumonitis):** Some people have had swelling of the lung tissue while receiving LEMTRADA. Call your healthcare provider right away if you have the following symptoms:

- shortness of breath
- chest pain or tightness
- cough
- coughing up blood
- wheezing

**Before receiving LEMTRADA, tell your healthcare provider if you:**

- are taking a medicine called Campath® (alemtuzumab)
- have bleeding, thyroid, or kidney problems
- have HIV
- have a recent history of infection
- have received a live vaccine in the past 6 weeks before receiving LEMTRADA or plan to receive any live vaccines. Ask your healthcare provider if you are not sure if your vaccine is a live vaccine
- are pregnant or plan to become pregnant. LEMTRADA may harm your unborn baby. You should use birth control while receiving LEMTRADA and for 4 months after your course of treatment
- are breastfeeding or plan to breastfeed. You and your healthcare provider should decide if you should receive LEMTRADA or breastfeed. You should not do both.

**Tell your healthcare provider about all the medicines you take,** including prescription and over-the-counter medicines, vitamins, and herbal supplements. LEMTRADA and other medicines may affect each other, causing side effects. Especially tell your healthcare provider if you take medicines that increase your chance of getting infections, including medicines used to treat cancer or to control your immune system.
The most common side effects of LEMTRADA include:

- rash
- headache
- thyroid problems
- fever
- swelling of your nose and throat
- nausea
- urinary tract infection
- feeling tired
- trouble sleeping
- upper respiratory infection
- herpes viral infection
- hives
- itching
- fungal infection
- joint pain
- pain in your arms or legs
- back pain
- diarrhea
- sinus infection
- mouth pain or sore throat
- tingling sensation
- dizziness
- stomach pain
- sudden redness in face, neck, or chest
- vomiting

Tell your healthcare provider if you have any side effect that bothers you or that does not go away. These are not all the possible side effects of LEMTRADA.

You are encouraged to report side effects of prescription drugs to the FDA. Visit http://www.fda.gov/medwatch or call 1-800-FDA-1088

Please see full U.S. Prescribing Information, including boxed WARNING and Medication Guide.

About Aubagio® (teriflunomide)

Aubagio is approved in more than 60 countries, with additional marketing applications under review by regulatory authorities globally. More than 80,000 patients are currently being treated with Aubagio commercially worldwide.

Aubagio is an immunomodulator with anti-inflammatory properties. Although the exact mechanism of action for Aubagio is not fully understood, it may involve a reduction in the number of activated lymphocytes in the central nervous system (CNS). Aubagio is supported by one of the largest clinical programs of any MS therapy, with more than 5,000 trial participants in 36 countries.

Aubagio® (teriflunomide) U.S. INDICATION

AUBAGIO® (teriflunomide) is a prescription medicine used to treat relapsing forms of multiple sclerosis (MS).

IMPORTANT SAFETY INFORMATION

DO NOT TAKE AUBAGIO IF YOU:

- Have severe liver problems. AUBAGIO may cause serious liver problems, which can be life-threatening. Your risk may be higher if you take other medicines that affect your liver. Your healthcare provider should do blood tests to check your liver within 6 months before you start AUBAGIO and monthly for 6 months after starting AUBAGIO. VIEW FULL IMPORTANT SAFETY INFORMATION Tell your healthcare provider right away if you develop any of these symptoms of liver problems: nausea, vomiting, stomach pain, loss of appetite, tiredness, yellowing of your skin or whites of your eyes, or dark urine.
- Are pregnant. AUBAGIO may harm an unborn baby. You should have a pregnancy test before starting AUBAGIO. After stopping AUBAGIO, continue to use effective birth control until you have made sure your blood levels of AUBAGIO are lowered. If you become pregnant while taking AUBAGIO or within 2 years after stopping, tell your healthcare provider right away and enroll in the AUBAGIO Pregnancy Registry at 1-800-745-4447, option 2.
- Are of childbearing potential and not using effective birth control.

It is not known if AUBAGIO passes into breast milk. Your healthcare provider can help you decide if you should take AUBAGIO or breastfeed — you should not do both at the same time.

If you are a man whose partner plans to become pregnant, you should stop taking AUBAGIO and talk with your healthcare provider about reducing the levels of AUBAGIO in your blood. If your partner does not plan to become pregnant, use effective birth control while taking AUBAGIO.

- Have had an allergic reaction to AUBAGIO or a medicine called leflunomide
- Take a medicine called leflunomide for rheumatoid arthritis.
**AUBAGIO may stay in your blood for up to 2 years after you stop taking it.** Your healthcare provider can prescribe a medicine that can remove AUBAGIO from your blood quickly.

**Before taking AUBAGIO, talk with your healthcare provider if you have:** liver or kidney problems; a fever or infection, or if you are unable to fight infections; numbness or tingling in your hands or feet that is different from your MS symptoms; diabetes; serious skin problems when taking other medicines; breathing problems; or high blood pressure. Your healthcare provider will check your blood cell count and TB test before you start AUBAGIO. Talk with your healthcare provider if you take or are planning to take other medicines (especially medicines for treating cancer or controlling your immune system), vitamins or herbal supplements.

**AUBAGIO may cause serious side effects, including:** reduced white blood cell count — this may cause you to have more infections; numbness or tingling in your hands or feet that is different from your MS symptoms; allergic reactions, including serious skin problems; breathing problems (new or worsening) and high blood pressure. Patients with low white blood cell count should not receive certain vaccinations during AUBAGIO treatment and 6 months after.

Tell your doctor if you have any side effect that bothers you or does not go away.

**The most common side effects when taking AUBAGIO include:** headache; diarrhea; nausea; hair thinning or loss; and abnormal liver test results. These are not all the side effects of AUBAGIO. Tell your healthcare provider about any side effect that bothers you.

Consult your healthcare provider if you have questions about your health or any medications you may be taking, including AUBAGIO.

**You are encouraged to report side effects of prescription drugs to the FDA.** Visit [www.fda.gov/medwatch](http://www.fda.gov/medwatch) or call 1-800-FDA-1088.

Please see full U.S. Prescribing Information, including boxed WARNING and Medication Guide.

**About Sanofi**

Sanofi, a global healthcare leader, discovers, develops and distributes therapeutic solutions focused on patients’ needs. Sanofi is organized into five global business units: Diabetes and Cardiovascular, General Medicines and Emerging Markets, Sanofi Genzyme, Sanofi Pasteur and Consumer Healthcare.

Sanofi Genzyme focuses on developing specialty treatments for debilitating diseases that are often difficult to diagnose and treat, providing hope to patients and their families. Learn more at [www.sanofigenzyme.com](http://www.sanofigenzyme.com).

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1 Company data on file

**Sanofi Forward-Looking Statements**

This press release contains forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. These statements include projections and estimates regarding the marketing and other potential of the product, or regarding potential future revenues from the product. Forward-looking statements are generally identified by the words “expects”, “anticipates”, “believes”, “intends”, “estimates”, “plans” and similar expressions. Although Sanofi’s management believes that the expectations reflected in such forward-looking statements are reasonable, investors are cautioned that forward-looking information and statements are subject to various risks and uncertainties, many of which are difficult to predict and generally beyond the control of Sanofi, that could cause actual results and developments to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include among other things, unexpected regulatory actions or delays, or government regulation generally, that affect the availability or commercial potential of the product, the absence of guarantee that the product will be commercially successful, the uncertainties inherent in research and development, including future clinical data and analysis of existing clinical data relating to the product, including post marketing, unexpected safety, quality or manufacturing issues, competition in general, risks associated with intellectual property and any related future litigation and the ultimate outcome of such litigation, and volatile economic conditions, as well as those risks discussed or identified in the public filings with the SEC and the AMF made by Sanofi, including those listed under “Risk Factors” and “Cautionary Statement Regarding Forward-Looking Statements” in Sanofi’s annual report on Form 20-F for the year ended December 31, 2016. Other than as required by applicable law, Sanofi does not undertake any obligation to update or revise any forward-looking information or statements.

**Language:**

English