Orchard Therapeutics Announces Comprehensive Presence at 19th Annual WORLDSymposium

February 8, 2023

Four oral presentations and 11 posters highlight transformative potential of HSC gene therapy and newborn screening to address severe neurometabolic diseases

BOSTON and LONDON, Feb. 08, 2023 (GLOBE NEWSWIRE) -- Orchard Therapeutics (Nasdaq: ORTX), a global gene therapy leader, today announced a series of presentations from across its neurometabolic portfolio will be featured at the 19th Annual WORLD*Symposium* taking place February 22-26, 2023, in Orlando, Florida.

Featured presentations include results from an updated integrated analysis of 39 patients with metachromatic leukodystrophy (MLD) treated in clinical trials or under expanded access frameworks in Europe with OTL-200, currently marketed as Libmeldy® (atidarsagene autotemcel) in the European Union, UK, Iceland, Liechtenstein and Norway, several accepted abstracts highlighting newborn screening efforts to support the timely and accurate diagnosis of MLD, as well as an encore clinical data presentation from the company's investigational hematopoietic stem cell (HSC) gene therapy OTL-201 for MPS-IIIA. Other data highlights include several investigator-initiated presentations detailing results of patients treated with OTL-200 in Europe, the U.S. and South America on compassionate use basis with drug product supplied from a European commercial manufacturer, demonstrating the potential for global supply from a centralized cGMP manufacturing site.

"The data to be presented at WORLD 2023 represents significant progress toward our mission of ending the devastation of severe genetic diseases though the transformative potential of HSC gene therapy," said Leslie Meltzer, Ph.D., chief medical officer of Orchard Therapeutics. "Together with our clinical and research partners, we look forward to providing the first look at our updated integrated analysis of OTL-200, which now encompasses more than 10 years of follow up in the earliest treated clinical trial patients and is intended to serve as the basis for future regulatory submissions, including a potential Biologics License Application in the U.S. In addition, the number of abstracts on newborn screening for MLD highlights the momentum building on this important diagnostic initiative which will ultimately enable early detection and timely diagnosis of this devastating condition."

The company will also host a sponsored symposium on Wednesday, February 22, 2023, from 11:45 a.m. to 12:45 p.m., titled "From Assay to Application: Writing the roadmap for metachromatic leukodystrophy newborn screening," featuring expert speakers with deep experience across the diagnostic journey and continuum of care for children with inborn errors of metabolism who will discuss the evidence to support widespread newborn screening for MLD.

Oral presentation details are as follows (all times in EST; * denotes corresponding poster):

- Title: Long-term clinical outcomes of atidarsagene autotemcel (autologous hematopoietic stem cell gene therapy [HSC-GT] for metachromatic leukodystrophy) with up to 11 years follow-up*
  Date/Time: Friday, February 24 at 8:00 a.m.
  Presenter: Francesca Fumagalli

- Title: Lentiviral hematopoietic stem cell gene therapy for metachromatic leukodystrophy: Results in 5 patients treated under nominal compassionate use*
  Date/Time: Friday, February 24 at 8:36 a.m.
  Presenter: Valeria Calbi

- Title: Sustained biochemical engraftment and early clinical outcomes following ex-vivo autologous stem cell gene therapy for Mucopolysaccharidosis Type IIIA*
  Date/Time: Thursday, February 23 at 9:12 a.m.
  Presenter: Simon Jones

- Title: Compassionate use of OTL-200 for patients with metachromatic leukodystrophy
  Date/Time: Thursday, February 23 at 1:24 p.m.
  Presenter: Paul J. Orchard
  Poster presentation details are as follows (all times in EST; * denotes corresponding oral presentation):

- Title: LC-MS/MS quantification of three C16 sulfatide species in dried blood spots for the diagnosis and treatment monitoring of metachromatic leukodystrophy
  Date/Time: Wednesday, February 22 from 4:00-5:00 p.m.
  Presenting Author: Magali Pettazzoni
  Poster #: 282

- Title: Blood sulfatides as disease biomarker for metachromatic leukodystrophy: Disease characterization, early diagnosis

and response to treatment
Date/Time: Thursday, February 23 from 3:00-4:00 p.m.
Presenting Author: Valeria Calbi
Poster #: 60

- Title: Newborn screening for metachromatic leukodystrophy (MLD): An overview of ongoing and future studies
  Date/Time: Thursday, February 23 from 3:00-4:00 p.m.
  Presenting Author: Michael Gelb
  Poster: #128

- Title: Sustained biochemical engraftment and early clinical outcomes following *ex-vivo* autologous stem cell gene therapy for Mucopolysaccharidosis Type IIIA
  Date/Time: Thursday, February 23 from 3:00-4:00 p.m.
  Presenting Author: Simon Jones
  Poster #: 188

- Title: Gallbladder abnormalities as an early indicator of metachromatic leukodystrophy (MLD): Use of electronic health records in a large pediatric hospital to aid early diagnosis
  Date/Time: Thursday, February 23 from 3:00-4:00 p.m.
  Presenting Author: Laura Tobin
  Poster #: 353

- Title: A Brazilian patient with late infantile metachromatic leukodystrophy treated with lentiviral hematopoietic stem-cell gene therapy: A report from prenatal diagnosis to early treatment
  Date/Time: Friday, February 24 from 3:00-4:00 p.m.
  Lead Author: Larissa Faqueti
  Poster#: 111

- Title: Lentiviral hematopoietic stem cell gene therapy for metachromatic leukodystrophy: Results in 5 patients treated under nominal compassionate use*
  Date/Time: Friday, February 24 from 3:00-4:00 p.m.
  Lead Author: Valeria Calbi
  Poster#: 61

- Title: Long-term clinical outcomes of atidarsagene autotemcel (autologous hematopoietic stem cell gene therapy [HSC-GT] for metachromatic leukodystrophy) with up to 11 years follow-up*
  Date/Time: Friday, February 24 from 3:00-4:00 p.m.
  Presenting Author: Francesca Fumagalli
  Poster #: 125

- Title: Atidarsagene autotemcel, a European post-regulatory approval model for delivery of autologous hematopoietic stem cell gene therapy products via a network of qualified treatment centers (QTCs)
  Date/Time: Friday, February 24 from 3:00-4:00 p.m.
  Presenting Author: Simon Jones
  Poster #: 189

- Title: A MLD newborn screening pilot-study for metachromatic leukodystrophy in Germany: Results of the first 12 months
  Date/Time: Saturday, February 25 from 4:00-5:00 p.m.
  Presenting Author: Petra Oliva
  Poster #: 266

- Title: The cost-effectiveness of OTL-200 for the treatment of metachromatic leukodystrophy (MLD) in the US
  Date/Time: Saturday, February 25 from 4:00-5:00 p.m.
  Lead Author: Francis Pang
  Poster#: 275

About Libmeldy / OTL-200
Libmeldy (atidarsagene autotemcel), also known as OTL-200, has been approved by the European Commission for the treatment of metachromatic leukodystrophy (MLD) in eligible early-onset patients characterized by biallelic mutations in the ARSA gene leading to a reduction of the ARSA enzymatic activity in children with i) late infantile or early juvenile forms, without clinical manifestations of the disease, or ii) the early juvenile form, with early clinical manifestations of the disease, who still have the ability to walk independently and before the onset of cognitive decline. Libmeldy is the first therapy approved for eligible patients with early-onset MLD.

The most common adverse reaction attributed to treatment with Libmeldy was the occurrence of anti-ARSA antibodies. In addition to the risks

associated with the gene therapy, treatment with Libmeldy is preceded by other medical interventions, namely bone marrow harvest or peripheral blood mobilization and apheresis, followed by myeloablative conditioning, which carry their own risks. During the clinical studies of Libmeldy, the safety profiles of these interventions were consistent with their known safety and tolerability.

For more information about Libmeldy, please see the Summary of Product Characteristics (SmPC) available on the EMA website.

Libmeldy is approved in the European Union, UK, Iceland, Liechtenstein and Norway. OTL-200 is an investigational therapy in the U.S.

Libmeldy was developed in partnership with the San Raffaele-Telethon Institute for Gene Therapy (SR-Tiget) in Milan, Italy.

About Orchard Therapeutics
At Orchard Therapeutics, our vision is to end the devastation caused by genetic and other severe diseases. We aim to do this by discovering, developing and commercializing new treatments that tap into the curative potential of hematopoietic stem cell (HSC) gene therapy. In this approach, a patient's own blood stem cells are genetically modified outside of the body and then reinserted, with the goal of correcting the underlying cause of disease in a single treatment.

In 2018, the company acquired GSK's rare disease gene therapy portfolio, which originated from a pioneering collaboration between GSK and the San Raffaele Telethon Institute for Gene Therapy in Milan, Italy. Today, Orchard is advancing a pipeline spanning pre-clinical, clinical and commercial stage HSC gene therapies designed to address serious diseases where the burden is immense for patients, families and society and current treatment options are limited or do not exist.

Orchard has its global headquarters in London and U.S. headquarters in Boston. For more information, please visit www.orchard-tx.com, and follow us on Twitter and LinkedIn.

Availability of Other Information About Orchard
Investors and others should note that Orchard communicates with its investors and the public using the company website (www.orchard-tx.com), the investor relations website (ir.orchard-tx.com), and on social media (Twitter and LinkedIn), including but not limited to investor presentations and investor fact sheets, U.S. Securities and Exchange Commission filings, press releases, public conference calls and webcasts. The information that Orchard posts on these channels and websites could be deemed to be material information. As a result, Orchard encourages investors, the media, and others interested in Orchard to review the information that is posted on these channels, including the investor relations website, on a regular basis. This list of channels may be updated from time to time on Orchard's investor relations website and may include additional social media channels. The contents of Orchard's website or these channels, or any other website that may be accessed from its website or these channels, shall not be deemed incorporated by reference in any filing under the Securities Act of 1933.

Forward-looking Statements
This press release contains forward-looking statements, which are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements that are not statements of historical facts are, or may be deemed to be, forward-looking statements. Forward-looking statements include express or implied statements relating to, among other things, Orchard's business and product development strategy and goals, including Orchard's expectations with respect to its commercial plans and expansion expectations. These statements are neither promises nor guarantees and are subject to a variety of risks and uncertainties, many of which are beyond Orchard's control, which could cause actual results to differ materially from those contemplated in these forward-looking statements. In particular, these risks and uncertainties include, without limitation, the risk that products will not be successfully commercialized, the risk that Orchard will not maintain marketing approval, and the risk that long-term adverse safety findings may be discovered. Given these uncertainties, the reader is advised not to place any undue reliance on such forward-looking statements.

Other risks and uncertainties faced by Orchard include those identified under the heading "Risk Factors" in Orchard's most recent annual or quarterly report filed with the U.S. Securities and Exchange Commission (SEC), as well as subsequent filings and reports filed with the SEC. The forward-looking statements contained in this press release reflect Orchard's views as of the date hereof, and Orchard does not assume and specifically disclaims any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required by law.

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