Thiogenesis Announces Presentation on UMDF Webcast Featuring Clinical Trials in Mitochondrial Disease

San Diego, California--(Newsfile Corp. - December 10, 2024) - Thiogenesis Therapeutics, Corp. (TSXV: TTI) ("Thiogenesis" or the "Company") a clinical-stage biotechnology company developing novel thiol compounds, including precursors to cysteamine, that have potent antioxidant and anti-inflammatory properties for mitochondrial diseases and related metabolic conditions is pleased to announce that Patrice Rioux, MD, Ph.D., Thiogenesis' Chief Executive Officer, presented an update on the Company's two clinical programs in mitochondrial disease at the United Mitochondrial Disease Foundation's ("UMDF") Webcast entitled, "Bench-to-Bedside" on December 9, 2024.

Mitochondrial Encephalomyopathy with Lactic Acidosis and Stroke-like Episodes ("MELAS")

On March 25, 2024, the Company announced the acceptance of its Clinical Trial Application Part I in Europe in MELAS. In December 2024, Thiogenesis submitted its Clinical Trial Application Part II which, when cleared, will allow the Company to commence a planned Phase 2 clinical trial in the Netherlands and France the first quarter of 2025. The randomized, placebo-controlled Phase 2 clinical trial will enroll 12 patients in total, 8 to be treated with Thiogenesis' lead product candidate, TTI-0102, and 4 with placebo. The primary endpoint will be a 12-minute walk test, with the measurement of relevant biomarkers as secondary endpoints.

MELAS is a rare, inherited mitochondrial disorder caused by mutations in mitochondrial DNA. Symptoms include seizures, muscle weakness, fatigue, loss of motor skills and intellectual disability. Oxidative stress plays an important role in the mitochondria and is a potential pathological mechanism of mitochondrial disease, that could be antagonized with TTI-0102, for the treatment of MELAS and other mitochondrial diseases. The prevalence of MELAS is estimated to be approximately 15,000 patients in the US and 20,000 in the EU.

Leigh Syndrome ("LS")

On July 18, 2024, the Company announced a collaboration with a leading US children's hospital to treat LS. In November 2024, the Company and the children's hospital jointly conducted a pre-investigational new drug ("pre-IND") meeting via conference call with the US Food and Drug Administration ("FDA") to discuss their proposed protocol for a Phase 2a clinical trial of TTI-0102 in LS. Incorporating feedback from the FDA, the Company is in the process of filing its IND for LS, and if cleared, anticipates initiating a Phase 2a clinical trial in the first quarter of 2025.

LS is a rare inherited genetic disease that results from mutations in both mitochondrial and nuclear DNA. It is one of the most debilitating of the mitochondrial diseases, usually diagnosed in infancy and occurs in an estimated 1/40,000 births. Initial symptoms for LS include impaired sucking/breastfeeding capability, loss of motor and communication skills, respiratory issues, poor muscle development, loss of appetite and seizures. Oxidative stress is a distinguishing feature of the disease, and there is currently no approved treatment for LS.

"It is a privilege to get the opportunity to support UMDF whenever possible as they provide invaluable services in increasing the profile of mitochondrial disease, patient and family support, and industry advocacy," said Patrice Rioux, MD, Ph.D., Thiogenesis' Chief Executive Officer. "Therefore, I was thrilled to get the opportunity to present updates on our MELAS and Leigh syndrome clinical programs on the UMDF Webcast."

About UMDF

The United Mitochondrial Disease Foundation's ("UMDF") mission is to promote research and education for the diagnosis, treatment and cure of mitochondrial disorders and to provide support to affected individuals and families. For more than 25 years, UMDF has built a network of the top clinicians, hospitals and researchers dedicated to fighting mitochondrial disease. It is driven by a nationwide community of ambassadors solely focused on supporting patients and families affected by mitochondrial disease. UMDF is committed to making a difference by funding the best science no matter where it is found in the world and providing critical programs and services to patients and their families.

About Thiogenesis

Thiogenesis Therapeutics, Corp. (TSXV: TTI) is a clinical-stage biopharmaceutical company operating through its wholly owned subsidiary based in San Diego, CA. The Company is publicly traded on the TSX Venture Exchange. Thiogenesis is developing sulfur-containing prodrugs that act as precursors to previously approved thiol compounds, with the potential to treat serious pediatric diseases with unmet medical needs. Prodrugs are drugs that contain previously approved active ingredients and are modified so that they only become active when metabolized. For regulatory purposes prodrugs can use existing third-party safety data in regulatory submissions in the streamlined 505 (b)(2) regulatory pathway in the U.S., and its equivalent hybrid system in Europe, to proceed into human efficacy trials with regulatory clearance. Prodrugs may enhance the profile of the active ingredient to increase its bioavailability and reduce side effects. The Company's initial target indications include MELAS, Leigh syndrome, pediatric MASH and Rett syndrome.

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Forward Looking Statements

This news release contains certain forward-looking statements and forward-looking information (collectively referred to herein as "forward- looking statements") within the meaning of Canadian securities laws including, without limitation, statements with respect to the future investments by the Company. All statements other than statements of historical fact are forward-looking statements. Undue reliance should not be placed on forward-looking statements, which are inherently uncertain, are based on estimates and assumptions, and are subject to known and unknown risks and uncertainties (both general and specific) that contribute to the possibility that the future events or circumstances contemplated by the forward-looking statements will not occur. Although the Company believes that the expectations reflected in the forward-looking statements contained in this press release, and the assumptions on which such forward-looking statements are made, are reasonable, there can be no assurance that such expectations will prove to be correct. Readers are cautioned not to place undue reliance on forward-looking statements included in this document, as there can be no assurance that the plans, intentions, or expectations upon which the forward-looking statements are based will occur. By their nature, forward-looking statements involve numerous assumptions, known and unknown risks and uncertainties that contribute to the possibility that the predictions, forecasts, projections and other forward-looking statements will not occur, which may cause the Company's actual performance and results in future periods to differ materially from any estimates or projections of future performance or results expressed or implied by such forward-looking statements. The forward-looking statements contained in this news release are made as of the date hereof and the Company does not undertake any obligation to update publicly or to revise any of the included forward-looking statements, except as required by applicable law. The forward-looking statements contained herein are expressly qualified by this cautionary statement.

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