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Gelteq Preclinical Study Demonstrates Enhanced Oral Delivery of Oil-Soluble and Poorly Soluble Drugs Using Its Gel-Based Platform

MELBOURNE, Australia, Dec. 05, 2025 (GLOBE NEWSWIRE) -- Gelteq Limited (“Gelteq” or the “Company”), a clinical and science-based developer of advanced gel-based oral delivery systems, today announced preclinical findings demonstrating the effectiveness, flexibility, and safety profile of its proprietary gel platform. The results address a major challenge in pharmaceutical development and demonstrate that Gelteq’s technology can enhance the oral delivery of oil-soluble and poorly soluble drugs.

Across two complementary preclinical studies, the results showed a more rapid absorption of an oil soluble compound in Gelteq’s gel base compared to an existing FDA approved reference product, with a 300 percent increase in bioavailability across the first hour. High bioavailability in the first hour is critical for rapid onset of action.

Further results demonstrated that the oil soluble compound wasn’t just more rapidly absorbed in Gelteq’s gel base, but the overall absorption was also improved. Over 24 hours, the absorption was improved by more than 20 percent overall compared to an existing FDA approved reference product. These findings further illustrate that Gelteq’s gel matrix can support the delivery of lipophilic compounds whilst moderating the need for high levels of emulsifiers.

The study results also demonstrate that Gelteq’s platform enables controlled movement through the digestive system, targeted release, and effective absorption while maintaining full clearance of both the active pharmaceutical ingredients (API) and the gel material itself.

The GI transit evaluation demonstrated that the gel disperses the active ingredient uniformly along the small intestine. This extended distribution behaviour supports improved absorption through both mucoadhesive interactions and the presentation of the drug across a larger intestinal surface area.

The studies also showed that the gel can be formulated to allow efficient transit and rapid early absorption of the API. The gel’s structural matrix dispersed and cleared effectively to the large intestine, reinforcing the platform’s safety and compatibility with oral administration.

These combined findings highlight Gelteq’s potential to provide a new and more versatile alternative to existing oral delivery approaches for oil-soluble and poorly soluble drugs.

With more than 40 percent of approved drugs and up to 90 percent of developmental candidates affected by poor solubility and bioavailability, the industry continues to invest billions of dollars[1] annually in new technologies to overcome these issues. Gelteq’s platform

offers a streamlined solution that may reduce developmental burdens, enhance bioavailability, and open pathways to revive previously shelved or challenging molecules.

Therapeutic areas most likely to benefit from Gelteq's gel-based delivery system include neurology, inflammation and pain management, hormonal therapies, cardiovascular medicine, nutraceuticals, weight management, oncology and veterinary health - categories where lipid-based or poorly soluble APIs are common and where improved absorption could meaningfully enhance clinical performance.

By enabling more consistent absorption, targeted delivery, reduced excipient reliance, and strong safety characteristics, the gel-based delivery system positions Gelteq as a valuable development partner for pharmaceutical and nutraceutical companies seeking to reformulate existing assets or address complex formulation challenges in their pipelines.

About Gelteq Ltd.

Headquartered in Melbourne, Australia, **Gelteq (NASDAQ: GELS)** is a biotechnology company that has developed a novel drug delivery platform in an ingestible gel form. Gelteq specializes in the formulation, development and manufacturing of gel products for licensed partners across pharmaceutical, consumer health and animal health markets. The proprietary formulation technology aims to address challenges associated with conventional drug and nutrient delivery by enhancing bioavailability, improving patient compliance, and enabling precise dosing. For more information, visit www.gelteq.com.

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Forward-Looking Statements

Certain statements in this press release may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact, contained herein are forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those expressed or implied in such statements. For a discussion of these risks and uncertainties, refer to Gelteq's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 20-F filed on November 17, 2025. Gelteq undertakes no obligation to update any forward-looking statements to reflect events or circumstances after the date hereof.

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[1] Solubility Enhancement Excipients Market Size 2025-2032

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Source: Gelteq Limited