## Oak Therapeutics Develops Oral Dissolvable Strips for Antiretroviral Therapy for Infants & Children



**Lawrence**, **Kansas Jan 31**, **2025** (<u>Issuewire.com</u>) - Oak Therapeutics, a pioneering early-stage life sciences company, announces the successful development of an innovative Oral Dissolvable Strip (ODS) formulation for the treatment of HIV/AIDS in infants and young children. This groundbreaking project, funded by a grant from the National Institutes of Health (NIH, Project 1R43AI170237-01), offers a transformative approach to improving medication adherence and addressing global challenges in the

treatment of HIV/AIDS. AIDS continues to be a global health concern with more than 3 million children infected with HIV. While the World Health Organization (WHO) calls for immediate antiretroviral treatment upon diagnosis in infants and young children, significant barriers to treatment adherence due to the inability to swallow tablets, unpleasant medication taste, and dosing challenges continue to present significant barriers to successful treatment.

To address these issues, Oak Therapeutics has developed a novel oral dissolvable strip (ODS) combining antiretroviral drugs – Abacavir, Lamivudine, and Dolutegravir (ALD) - three World Health Organization (WHO)-recommended drugs - designed for daily dosing. The innovative ODS – a rapidly dissolving, muco-adhesive, stamp-sized strip - simplifies administration, enhances taste masking, ensures patient privacy, and promotes better adherence across pediatric and adult populations.

"Medication acceptability is a critical factor in treatment adherence when combatting HIV in infants and young children," said Dr. Ed Maliski, CEO, of Oak Therapeutics. "Our Oral Dissolvable Strip represents a significant leap forward in ensuring patients receive and complete their prescribed therapy effectively and conveniently."

The development process utilized state-of-the-art computational modeling and design-of-experiment techniques to optimize the ODS formulation. Through rigorous testing, including bioequivalence studies and taste-masking trials, the new ODS demonstrated comparable pharmacokinetics to traditional tablet formulations. Key findings include:

- **High Drug Loading:** Oak's unique technology allowed for a loading of 95mg of multiple active pharmaceutical ingredients on a single, muco-adhesive ODS.
- **Non-Inferiority in Bioavailability:** Comparative studies confirmed that the ODS performs equivalently to standard tablet regimens in drug absorption and efficacy.
- **Rapid Dissolution:** The ODS dissolves in approximately 35 seconds, enhancing ease of use for patients.
- **Improved Taste Masking:** Encapsulation technologies significantly reduced the bitterness of active pharmaceutical ingredients.

This advancement underscores Oak Therapeutics' commitment to leveraging cutting-edge drug delivery technologies to address critical healthcare challenges worldwide. With continued innovation, the company aims to revolutionize treatment approaches for a variety of medical conditions, ensuring greater accessibility and patient compliance. More information is also available from the official SBIR website at <a href="https://legacy.www.sbir.gov/node/2339177">https://legacy.www.sbir.gov/node/2339177</a>.

For more information about Oak Therapeutics and its groundbreaking Oral Dissolvable Strips, please contact Dr. Sally Maliski, VP of Communications, <a href="mailto:smallski@oaktherapeutics.com">smallski@oaktherapeutics.com</a>.

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