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## **Johnson & Johnson Joins Forces with Monash University-led Partnership to Advance Novel Technology Aimed at Saving Lives of Women in Child Birth**

*The biggest cause of pregnancy-related death in resource-limited settings is excessive blood loss after birth, a condition effectively managed in developed countries with injectable oxytocin administered by trained personnel.*

*A novel form of oxytocin, an inhalable dry powder which that does not require refrigeration, has the potential to expand its reach and ease of use by frontline health workers and potentially mothers themselves.*

**Melbourne, Australia, March 21, 2019** – Janssen Pharmaceutica N.V, one of the Janssen Pharmaceutical Companies of Johnson & Johnson, today announced that it has entered into a sponsored research agreement with the Monash Institute of Pharmaceutical Sciences (MIPS) at Monash University to advance the development of an inhaled version of oxytocin to help prevent and manage Post-Partum Hemorrhage (PPH). PPH, a condition of excessive blood loss after birth, is the leading cause of maternal mortality globally, resulting in an estimated 60,000 deaths per year, overwhelmingly in resource-limited countries.

“When you consider the lifetime risk of dying for a woman in child birth is 23 times higher in resource-limited settings than anywhere else you must act if you have the scientific capabilities to potentially help overcome that inequity,” said Jaak Peeters, Global Head, Johnson & Johnson Global Public Health, Janssen-Cilag GmbH. “We hope to address this significant unmet need by helping accelerate the development of what would be a truly life-saving innovation and give women and their families everywhere the same chance at life.”

Most deaths resulting from PPH could be avoided if access to suitable medical innovation were available. It is effectively managed in developed countries using the gold standard therapy, oxytocin, a manufactured form of a natural hormone. Accessibility to quality oxytocin in resource-poor countries is however limited as current products are only available in an injectable form requiring supply and storage under refrigerated conditions and trained personnel to administer the product safely.

This new research agreement builds on an [existing collaboration between MIPS and GSK](#) which was established in 2014. Formulated as a dry powder, inhaled oxytocin would eliminate the need for refrigerated storage conditions, while delivering oxytocin via a powder inhaler could ease its administration allowing for its use by frontline health workers, birth attendants and mothers themselves. Combined, this innovative approach has the potential to also support attended births outside of medical facilities.

“This is an exciting opportunity to expand this collaboration between industry and academia to develop an important healthcare innovation that aims to address a critical unmet medical need”, said Professor Michelle McIntosh, Monash Institute of Pharmaceutical Sciences, Monash University who has pioneered the inhaled delivery of oxytocin. “There is a massive ripple effect when a mother dies – it’s a very significant burden for these families and communities, and we are committed to bringing the gold-standard care to all mothers.”

The collaboration was facilitated by Johnson & Johnson Innovation. The announcement was made today at the Johnson & Johnson Innovation Partnering Office at Monash (JJIPO@MONASH) which was established in January 2018 by Johnson & Johnson Innovation, Australia’s Victorian Government and Monash University to

enable access by Victorian researchers and companies to the expertise across Johnson & Johnson's scientist research, investor and commercial operations.

"Australia is a thriving hub of life science innovation with a proven track-record of delivering innovative healthcare solutions for people globally," said Kathy Connell, Senior Director, New Ventures, Australia & New Zealand, Johnson & Johnson Innovation. "This latest agreement between Johnson & Johnson and Monash University, an internationally renowned leader in pharmacy and pharmacology, builds on our legacy of innovative academic-industry collaborations in Australia focused on developing life-saving treatments for the highest unmet needs."

### **About Johnson & Johnson**

At Johnson & Johnson, we believe good health is the foundation of vibrant lives, thriving communities and forward progress. That's why for more than 130 years, we have aimed to keep people well at every age and every stage of life. Today, as the world's largest and most broadly-based healthcare company, we are committed to using our reach and size for good. We strive to improve access and affordability, create healthier communities, and put a healthy mind, body and environment within reach of everyone, everywhere. We are blending our heart, science and ingenuity to profoundly change the trajectory of health for humanity.

Learn more at [www.jnj.com](http://www.jnj.com). Follow us at [www.jnj.com/jnjnews](http://www.jnj.com/jnjnews).

### **About the Janssen Pharmaceutical Companies of Johnson & Johnson**

At Janssen, we're creating a future where disease is a thing of the past. We're the Pharmaceutical Companies of Johnson & Johnson, working tirelessly to make that future a reality for patients everywhere by fighting sickness with science, improving access with ingenuity, and healing hopelessness with heart. We focus on areas of medicine where we can make the biggest difference: Cardiovascular & Metabolism, Immunology, Infectious Diseases & Vaccines, Neuroscience, Oncology, and Pulmonary Hypertension.

Learn more at [www.janssen.com](http://www.janssen.com). Follow us at [www.twitter.com/JanssenGlobal](https://www.twitter.com/JanssenGlobal). Janssen Pharmaceutica N.V. is one of the Janssen Pharmaceutical Companies of Johnson & Johnson.

### **About Our Global Public Health Approach**

Charting a bold new approach, Johnson & Johnson has established the first fully-dedicated innovator within a healthcare company focused on combining innovative R&D, novel access programs & approaches, in-country operations and advocacy to ensure that treatments and technologies are available, affordable and accessible for the world's most under-served populations. Harnessing the extensive resources and expertise from across Johnson & Johnson, its Global Public Health team is using the Company's size and scale to place an unparalleled focus on accelerating the pace of innovation needed – from discovery to delivery – to make TB and HIV history, eliminate intestinal worms, tackle the burden of mental illness and wrestle other public health challenges.

Learn more at [www.jnj.com/global-public-health](http://www.jnj.com/global-public-health) and follow us [www.jnj.com/JNJGlobalHealth](http://www.jnj.com/JNJGlobalHealth).

### **Cautions Concerning Forward-Looking Statements**

*This press release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995 regarding product development. The reader is cautioned not to rely on these forward-looking statements. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or known or unknown risks or uncertainties materialize, actual results could vary materially from the expectations and projections of Janssen Pharmaceutica N.V., Johnson & Johnson and/or their affiliates. Risks and uncertainties include, but are not limited to, challenges and uncertainties inherent in*

*product development, including the uncertainty of clinical success and of obtaining regulatory approvals; challenges to patents; product efficacy or safety concerns resulting in product recalls or regulatory action; manufacturing difficulties and delays; and trends toward health care cost containment. A further list and description of these risks, uncertainties and other factors can be found in Johnson & Johnson's Annual Report on Form 10-K for the fiscal year ended December 30, 2018, including in the sections captioned "Cautionary Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors," in the company's most recently filed Quarterly Report on Form 10-Q and in the company's subsequent filings with the Securities and Exchange Commission. Copies of these filings are available online at [www.sec.gov](http://www.sec.gov), [www.jnj.com](http://www.jnj.com) or on request from Johnson & Johnson. The Janssen Pharmaceutical Companies, Johnson & Johnson and their affiliates do not undertake to update any forward-looking statement as a result of new information or future events or developments.*