

## Ophirex Licenses Lilly - Shionogi Data for Novel Snakebite Treatment Development Program

— *Field-Based Treatment Could Help Alleviate Global Medical Crisis* —

— *Death Toll and Suffering from Snakebite Affect Millions Annually* —

**San Francisco, Calif., August 28, 2017** — Ophirex, Inc., a biotechnology company dedicated to addressing major unmet needs in tropical medicine, announced today that it has licensed data related to sPLA2 inhibitors from Eli Lilly and Company and Shionogi, Inc. for Ophirex's development program for the field treatment of envenomation, especially by snakes.

Ophirex is working to develop a potential treatment that could be administered in the field to inhibit the progression of venom, thereby mitigating immediate, life-threatening effects of snakebites. Every year, approximately 5 million people worldwide are bitten by venomous snakes. Many of these bites result in envenomation, where a snake injects venom (defined as poisons that are injected by bite or sting) from its fangs into the bloodstream of its victim, disabling or disfiguring an estimated 400,000 people and killing as many as 100,000 people annually. More than 75 percent of these deaths occur before patients receive hospital-based medical care.

The Ophirex program focuses on sPLA2 inhibitors previously studied by Lilly and Shionogi in clinical trials for unrelated indications. Ophirex identified their potential to act against a broad spectrum of snake venom sPLA2s — one of the most common and lethal components of snake venoms — and has demonstrated their potency against 28 snake venom sPLA2s from six continents. In preclinical studies, Ophirex has produced data supporting the efficacy of sPLA2 inhibitors as a therapy for snake venom (*Toxins* **2016**, 8(9),248; doi:[10.3390/toxins8090248](https://doi.org/10.3390/toxins8090248)).

"We're very excited by the potential of these sPLA2 inhibitors to hinder the rapidly fatal effects of snake venom and transform the landscape of this ancient and still devastating affliction," said Matthew R. Lewin, M.D., Ph.D., Ophirex's founder. "Thanks to Lilly and Shionogi's true commitment to accelerating this program, we can move quickly to combine our preclinical evidence and their extensive preclinical and clinical data packages to pursue development of sPLA2 inhibitors as first-in-class treatments to address this huge unmet need. Our vision is to develop the world's first field antidote to snakebite, allowing anyone to treat any bite, any place, at any time."

The public health emergency of snakebite, which primarily affects the world's most impoverished populations, has recently gained international attention. Doctors Without Borders / Médecins Sans Frontières (MSF) has identified snakebite as one of the most significant medical crises facing the globe and has flagged shortages of anti-venom, especially in Sub-Saharan Africa. This summer, the World Health Organization (WHO) officially declared snakebite a Neglected Tropical Disease. The crisis has also gained the support of celebrities dedicated to global health. The first of these was Rock & Roll Hall of Famer Jerry Harrison of the Talking Heads, who, upon hearing of Dr. Lewin's ideas helped co-found the company.

"Connecting people with better access to care drives our collaboration with Ophirex," said Evan Lee, M.D., Vice President of Global Health, Eli Lilly and Company. "Through our new initiative, Lilly 30x30, we're committed to helping 30 million people in resource-limited settings each year access quality care. Thinking creatively and exploring innovative partnerships is exactly how we aim to reach more people and fulfill the promise of this commitment. We applaud Dr. Lewin and Mr. Harrison for their commitment to improving lives by addressing a critical global health priority."

The extensive research produced by Lilly and Shionogi and now licensed by Ophirex provides important insights on sPLA2 inhibitors and their potential utility against snake venom. Large datasets from clinical studies in rheumatoid arthritis, asthma, and sepsis showed that the compound of interest was safe and well-tolerated. While the compound did not show efficacy

against these diseases, it clearly demonstrated a reduction of key inflammatory indicators, many which are associated with envenoming.

### **About Ophirex**

Dr. Matthew R. Lewin, an emergency physician and neuroscientist best known as an expedition doctor, founded Ophirex to focus on developing field treatments for snakebite. Ophirex is a public benefit corporation committed to the ideal that treatment for any snakebite can begin anywhere, anytime, by anyone. For more information, please see [www.ophirex.com](http://www.ophirex.com).

With Ophirex co-founder Mr. Jerry Harrison, a Rock & Roll Hall of Famer (Talking Heads, Modern Lovers) an experienced technology entrepreneur (MicroUnity, Garageband), Dr. Lewin has helped to raise awareness of the need to address the global snakebite epidemic. Advocacy and research by leaders in the field of snakebite, including Dr. Lewin's, is featured in the upcoming documentary, "*Minutes to Die*," premiering in fall 2017 ([www.minutestodie.com](http://www.minutestodie.com)).



Dr. Lewin on expedition to Southeast Asia (Photo Credit: Dr. Natalia Polydouri)

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