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IDRI Scientists Outline Methods for Making Key Vaccine Ingredients Stable at Room Temperature *Allowing Access to Modern and Effective Vaccines for All*

Seattle – April 12, 2021 – Seattle’s Infectious Disease Research Institute (IDRI) announced today that Christopher Fox, Ph.D., Vice President of Formulations at IDRI, and Yizhi (Stacey) Qi, Ph.D., published a review article, entitled “Development of Thermostable Vaccine Adjuvants” in this month’s *Expert Review of Vaccines*.

“As the scientific community continues to focus on defeating COVID-19 and preparing for the next pandemic, there is a critical need to develop technologies that allow the most potent vaccines to reach the broadest populations around the world, especially in resource-poor areas,” **Dr. Fox said**. “Adjuvants are immune-stimulating molecules that are applied to vaccines, generating strong and protective immune responses within the human body. In many cases these responses last for long periods of time and against variants of the infection that emerge in the future.” By pioneering methods to make these critical vaccine components stable at room temperature, universal access to the most effective vaccine technologies can become a reality.

“The importance of vaccine thermostability has been robustly discussed in the literature. Nevertheless, the challenge of developing thermostable vaccine adjuvants has sometimes not received appropriate emphasis. Adjuvants comprise an expansive range of particulate and molecular compositions, requiring innovative thermostable formulation and process development approaches,” **Drs Fox and Qi wrote in their abstract**.

“As adjuvant-containing vaccines become more widely used, the unique challenges associated with developing thermostable adjuvant formulations merit increased attention. In particular, more focused efforts are needed to translate promising proof-of-concept technologies and formulations into clinical products,” **Drs Fox and Qi concluded**.

Published in the March 2021 online edition of *Expert Review of Vaccines*, the manuscript can be accessed by clicking [here](#).

With over 15 years of product development experience in adjuvants, formulations, manufacturing and clinical testing, and more than 90 peer-reviewed papers, Dr. Fox is a leader in the field of vaccine adjuvants. He is the editor of a volume from the Springer Methods in Molecular Biology Series entitled “Vaccine Adjuvants: Methods and Protocols” published in 2017 and has served as the principal investigator of multiple grants and contracts from US government agencies and foundations. He has also directed technology transfer of adjuvant formulation manufacturing to institutes in India, Brazil, South Africa, and Romania. Dr. Fox was awarded the 2015 Pioneers in Global Health Rising Leader Award from the Washington Global Health Alliance.

Dr. Qi is a scientist in the Formulations group at IDRI. Prior to joining IDRI in 2017, she received her Ph.D. in Biomedical Engineering from Duke University, where she worked on delivery of biologic therapeutics using polymeric materials. She has authored 10 peer-reviewed papers and is an inventor on four patents/patent applications. During her time at IDRI, Dr. Qi has divided her effort between adjuvant formulation and process development. Dr. Qi led the development of a process that increased the yield of a critical vaccine component that is in limited supply due to its source from rare natural products (saponins) nearly 1000-fold. This work was recently published in the Journal of Chromatography A and the technology has been transferred to GMP manufacturing.

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IDRI is a nonprofit biotech organization located in Seattle, Washington that combines high-quality scientific research with product development and manufacturing capabilities to help combat some of the world's deadliest diseases, including COVID-19. For nearly three decades, much of IDRI's work has been focused on creating immune-enhancing technologies that improve the body's natural response to disease. It is IDRI's mission to make these technologies widely available at a low cost and to build a world in which every person has access to the tools that harness their immune systems and allow for a long, healthy life free of disease.