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The Schools of Medicine at Yale and University of Pittsburgh are joining forces with Three Lakes Foundation to accelerate a cure for pulmonary fibrosis

Chicago, Ill., March 17, 2021 — Three Lakes Foundation (TLF) has announced that it has selected Yale University School of Medicine and the University of Pittsburgh School of Medicine to join the **Three Lakes Consortium for Pulmonary Fibrosis (TLC4PF)**. Together, they will focus on advancing disease understanding with the goal to accelerate new treatments and curing this devastating lung condition.

“The TLC4PF is a multiyear, multimillion dollar initiative,” said Dana Ball, executive director of Three Lakes Foundation. “The Consortium provides a framework for cooperation and coordination among leading pulmonary researchers at medical institutions dedicated to improving care and health outcomes through the development and delivery of new medicines.”

Pulmonary fibrosis (PF) occurs when lung tissue becomes damaged and scarred. Over time, the scarring destroys the lungs, making it harder for oxygen to enter the bloodstream and causes breathing to become difficult. While 40-50,000 people are diagnosed each year with PF, another 40,000 die annually.

The TLC4PF aims to change how the disease is diagnosed and treated. The Consortium comprises three strategic workgroups that are interdependent of each other and each addresses a different challenge in new therapy development:

- **The PF Connectome** workgroup will utilize artificial intelligence and cutting-edge, single cell profiling technologies to accelerate implementations of novel precision therapies in PF by creating a dynamic, public atlas of cell and compound fibrosis specific signatures. [Naftali Kaminski, M.D., professor of](#)

Our mission is to serve as a catalyst for uniting research, industries, and philanthropy in pulmonary fibrosis to improve time to diagnosis and accelerate new therapies.

medicine and pharmacology and chief of Pulmonology, Critical Care and Sleep Medicine at Yale University School of Medicine will serve as its lead principal investigator. Dr. Kaminski, an award-winning physician-scientist and renowned expert in pulmonary fibrosis, genomics and translational medicine, is a pioneer of implementation of high throughput technologies in advanced human lung disease. He is credited with multiple discoveries including peripheral blood protein and gene biomarkers and novel drug targets. Dr. Kaminski also currently leads multiple, single cell profiling efforts. He and others have recently completed the largest single cell analysis to date, publicly available at www.IPFCellAtlas.com. His team includes experts in computational biology, machine learning, single cell transcriptomics and proteomics. The team members are:

- Xiting Yan, Ph.D., assistant professor, Center for Precision Pulmonary Medicine (P²MED), Yale School of Medicine
 - Ziv Bar-Joseph, Ph.D., professor, Computational Biology, School of Computer Science, Carnegie Mellon University
 - Jun Ding, Ph.D., assistant professor, Meakins-Christie Laboratory, McGill University
 - Jeremy Clair, Ph.D., scientist, Biological Science Division, Pacific Northwest National Laboratory
 - Oliver Eickelberg, M.D., visiting professor of medicine and vice-chair, Department of Medicine, University of Pittsburgh
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- **The PF Translation** workgroup will create a unique pipeline of human translational PF models that will serve as a core resource for the PF community to expedite drug discovery and validation for PF. This workgroup will be led by Melanie Königshoff, M.D., Ph.D., visiting professor of medicine at the University of Pittsburgh School of Medicine. Dr. Königshoff is a world-renowned physician-scientist in pulmonary fibrosis. She leads a multidisciplinary and translational research program on age-related chronic lung disease at the University of Pittsburgh. She has pioneered the development and application of human tissue-based models to study the complex phenotypes of PF as well as potential therapeutic interventions thereof. Her team comprises outstanding experts in PF

phenotyping and modeling, bioengineering and stem cell biology. The team members include:

- Kambez Benam, Ph.D., visiting associate professor, Department of Bioengineering, Swanson School of Engineering, University of Pittsburgh
 - Brigitte Gomperts, M.D., professor, Pediatrics; Pulmonary Medicine, University of California, Los Angeles
 - Ivan Rosas, M.D., professor and section chief, Baylor College of Medicine
- **The PF Early Disease** workgroup will focus on studying pre/early PF to understand the underlying biology of disease and progression; identify individuals at risk; and improve long-term outcomes. This workgroup is under development and is expected to launch in early summer 2021.

At least 10 institutions globally will be collaborating with Three Lakes Foundation and the TLC4PF investigators from the Schools of Medicine at Yale and University of Pittsburgh when the Consortium becomes fully operational. Their participation will be critical to paving the path to discovery, translation and development of clinical trials to study next-generation therapies designed to stop and repair PF.

“The Consortium is an integral component of our innovative PF ecosystem,” said Cheryl Nickerson-Nutter, Ph.D., executive vice president of research & development at TLF. “Three Lakes Foundation is bringing together many of the top investigators in pulmonary research supported by well-known medical research institutions to collaborate on making a cure for PF a reality. Together, we can bring new hope to patients and their families.”

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About Three Lakes Foundation

Three Lakes Foundation (TLF) is a nonprofit dedicated to serving as a catalyst for uniting research, industries, and philanthropy in pulmonary fibrosis. We connect entrepreneurs, advocates and institutions to an innovation ecosystem that will transform our approach to improve time to diagnosis and accelerate new therapies. To learn more, visit threelakesfoundation.org.

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