



Washington Research
FOUNDATION

Washington Research Foundation Makes \$2 Million Gift to Catalyze Bold New Health Care Initiative

Major Financial Commitment Will Accelerate the Institute for Systems Biology's Cutting Edge Research in the Emerging Scientific Wellness Industry

SEATTLE, WA – September 30, 2015

Washington Research Foundation (WRF), which supports groundbreaking technology in the life sciences, physical sciences and information sciences in Washington State, announced today that it will provide the Institute for Systems Biology (ISB) with \$2 million in funding to bring increased research power to Seattle, and help place this community at the center of the coming transformation of the health care system.

The funding will help accelerate ISB's P4 biomedical research, which is catalyzing a new industry -- scientific wellness -- and establish Seattle as its epicenter. P4 medicine is predictive, preventive, personalized and participatory and has two central thrusts—quantifying wellness and demystifying disease. The current healthcare industry focuses 98 percent of its efforts and resources on addressing disease. In contrast, P4 medicine will enable the quantification of wellness and promises a revolution in the healthcare system -- from a focus on disease to a focus on wellness. This has the potential to save the healthcare systems billions of dollars.

"We're very appreciative that WRF is supporting us in establishing this new paradigm that will enable the development of scientifically validated wellness metrics and the identification of novel ways to predict and prevent disease," said Leroy Hood, MD, PhD, president and co-founder of ISB. "We can now go forward together, continue to grow the center of the scientific wellness industry here in Seattle, and ensure global leadership in this very important new industry."

Central to this new approach is the generation of the data needed to provide a "search engine for the human body," which can be monitored and analyzed over time to deduce early disease warning signs. Further, it seeks not only the absence of disease, but optimization of wellness in individuals to maximize their human potential and allow them to enhance their healthy lifespan.

ISB has been at the forefront of P4 medicine, conceptualizing and launching the 100K Wellness Project, the first broadly integrative approach to scientific wellness, in 2012. A longitudinal study of 100,000 people that has achieved proof-of-concept from 107 pioneers, the 100K Wellness Project will leverage ISB's core scientific strengths -- assays, analytics and network biology -- to analyze the anticipated cascade of 100K Wellness Project data. ISB is also forming strategic partnerships with external organizations, including a Seattle-based ISB spin-off private wellness company, Arivale, focused on enrollment and direct engagement with participants.

WRF's \$2 million commitment will help ISB add a new faculty-led research group that will enable the program to build its capacity in computation/analytics. With the massive explosion of 100K data, ISB needs to be able to exploit the enormous opportunity by recruiting additional faculty and researchers

with expertise in large-scale database construction and management, biological analytics and capabilities in exploring new ways of integrating and modeling data.

Adds Ron Howell, president and CEO of Washington Research Foundation: “We’re big believers in ISB’s mission. And that’s why we provided this truly unique organization with an initial \$500,000 gift in 2010. ISB has a real vision for scientific wellness. It’s recently spun out a new company that will enroll tens of thousands of consumers while ISB itself pursues complementary partnerships with global healthcare systems. ISB is attempting to change both the information gathered and the way a patient interacts with a physician. Some will no doubt resist this change but if the data is compelling there should be many quality-of-life benefits from this work.”

ISB, and the promise that P4 medicine represents, is fueled by several significant new technology breakthroughs. The opportunity has been enhanced by the convergence of systems medicine, which is a 360 degree approach to preventing and treating disease; big data and the emergence of multi-dimensional individual data clouds; and patient-activated social networks.

“We are excited about establishing computational collaborations with ISB and the 100K Wellness Project,” said Ed Lazowska, the Bill & Melinda Gates Chair in Computer Science & Engineering at the University of Washington. “Our big data center, the eScience Institute, has the ability to extract knowledge from large, heterogeneous and noisy data sets. This, combined with insights on database requirements and cloud-based analytics and modeling, will add enormous value to this very compelling initiative.”

About Washington Research Foundation

Washington Research Foundation (WRF) was founded in 1981 to assist universities and other nonprofit research institutions in Washington State with the commercialization and licensing of their technologies. WRF is recognized as one of the foremost technology transfer organizations in the nation and has returned more than \$485 million to the state's research institutions through gifts and licensing disbursements. For more information, visit www.wrfseattle.org.

About the Institute for Systems Biology

The Institute for Systems Biology (ISB) is a nonprofit biomedical research organization based in Seattle, Washington. It was founded in 2000 by systems biologist Leroy Hood, immunologist Alan Aderem, and protein chemist Ruedi Aebersold. ISB was established on the belief that the conventional models for exploring and funding breakthrough science have not caught up with the real potential of what is possible today. ISB serves as the ultimate environment where scientific collaboration stretches across disciplines, where our researchers have the intellectual freedom to challenge the status quo, and where grand visions for breakthroughs in human health inspire a collective drive to achieve the seemingly impossible. Our core values ensure that we always keep our focus on the big ideas that eventually will have the biggest impact on human health. Since 2000, ISB has grown to about 200 staffers, which includes 9 faculty members and laboratory groups. See more at www.systemsbiology.org.