WASHINGTON STATE LIFE SCIENCES DISCOVERY FUND HELPS LAUNCH THREE NEW PROGRAMS TO ADVANCE HEALTH RESEARCH AND DEVELOPMENT

SEATTLE, Washington, JUNE 27, 2011— The Life Sciences Discovery Fund (LSDF) today announced awards to three multi-institutional teams to support development of improved therapies and key resources for medical researchers and health-care policymakers. LSDF will allocate up to $8 million among the three programs.

The programs will be led by University of Washington investigators in partnership with collaborators across the state. Dr. David Flum will work with health-care providers, insurers, and information technology experts to create databases of clinical practices, patient outcomes, and medical costs that can be used to assess the comparative effectiveness and cost effectiveness of specific health-care strategies. This work builds upon an LSDF project grant that Dr. Flum received in 2007.

A second program, led by Dr. Michael Schwartz, will develop new human stem cell-based treatments for type 1 diabetes that avoid the problems of tumor formation and immune rejection that have previously limited the use of such therapies. The research team anticipates that their treatment approach can ultimately be applied to other diseases.

The third program, directed by Dr. John Slattery, will establish a system for collection and statewide distribution of human biological specimens required to answer important research questions and ultimately improve disease diagnosis and treatment. The specimens will be linked to biologically relevant data on the donors, and the program will be constructed to protect patient privacy and rights. This program will complement the cancer biospecimen resource that Dr. Peggy Porter of the Fred Hutchinson Cancer Research Center is developing under an LSDF 2009 program grant.
The three awards were made in the 2010 program grant competition, which supports the launch of new collaborative initiatives that address major health problems and position organizations for future competitiveness and leadership.

According to LSDF executive director Lee Huntsman, the new cohort of awards is anticipated to reap health and economic impacts that are broad in both magnitude and scope. “In addition to improving treatment of a specific condition—namely, type 1 diabetes—these grants will create robust resources to accelerate development of diagnostics and therapies for a multitude of diseases.”

Huntsman added that “the grant to Dr. Flum will allow Washington’s health-care community to answer vital questions regarding the value of various treatments and determine the best uses of our limited health-care dollars.”

The LSDF board of trustees selected the awardees from 11 proposals that were evaluated by national experts convened by the American Association for the Advancement of Science. In a highly competitive two-phase process, proposals were rated on scientific merit and the potential to improve health and health care in Washington and provide statewide economic benefit.

Lura Powell, chair of the LSDF board of trustees, noted that the impact of the new awards would likely be felt throughout Washington. “These grants support cutting-edge research as well as widespread distribution of high-quality specimens and health-care data. Together, they will help ensure that our state maintains its leadership position in medical research and delivery of cost-effective health care.”

Funding for program grant awards comes from Washington’s allocation of payments under the Master Tobacco Settlement Agreement of 1998, revenues arising from multi-state litigation with tobacco product manufacturers.

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The Life Sciences Discovery Fund, a Washington state agency established in May 2005, makes grant investments in innovative life sciences research to benefit Washington and its citizens.
David Flum, University of Washington, budget not to exceed $2,264,714

Program Title: *SCOAP Comparative Effectiveness Research Translation Network (CERTN)*

Program Focus: To expand and leverage datasets on quality of surgical care and collect patient outcomes, which will allow the health-care system to dynamically “learn” from patient care.

The Surgical Care and Outcomes Assessment Program (SCOAP), funded in part by a 2007 LSDF grant to David Flum at the University of Washington, collects and shares data on surgical procedures and patient outcomes among hospitals statewide to promote widespread use of the safest and most effective practices. SCOAP serves as a platform for comparative effectiveness research (CER), the science of understanding how well health-care interventions work and how different health-care strategies impact patients and the health-care system. Integrating CER into health-care decision-making will likely be critical for getting more value out of health-care dollars. CERTN links SCOAP data to records from outpatient facilities, statewide payer health-care and claims data, the state’s vital status registry, and patient-reported outcomes surveys to provide investigators, insurers, health-care stakeholders, and policymakers with longitudinal data on surgical and medical treatment and patient outcomes to ultimately improve best practices and cost-effectiveness. CERTN is analogous to the aviation safety system, in which problems and errors are quickly reported and acted on to improve safety. CERTN will serve as a model for other communities that are trying to develop a learning health-care system.

Michael Schwartz, University of Washington, budget not to exceed $3,994,222

Program Title: *A Program for Cell-Based Diabetes Therapy*

Program Focus: To develop human stem cells to restore insulin secretion function in patients with type 1 diabetes.
Type 1 (or juvenile) diabetes occurs when the body’s capacity to secrete insulin can no longer
meet its needs. This, in turn, results in elevated blood glucose levels that markedly increase the
risk of heart attack, stroke, kidney disease, and other devastating complications. The
prevalence of type 1 diabetes has doubled in the US over the past 30 years, and, while
treatments exist, there is no cure. This grant launches the Diabetes-Stem Cell Program (DSCP), a
multi-institutional effort to unite expertise in stem cell biology with that of the biology of the
pancreas (the organ that produces insulin), diabetes, cell therapies, and immunology. Key
objectives of the DSCP include not only the creation and commercialization of a new, cell-based
method for diabetes treatment, but also the development of strategies to eliminate the risk of
tumor formation in implanted cells, and optimization of methods for cell differentiation and
analysis. DSCP involves faculty from the University of Washington (UW) Diabetes and Obesity
Center of Excellence, UW Institute for Stem Cell and Regenerative Medicine, UW Medical
Center, Benaroya Research Institute, and the Department of Veterans Affairs Puget Sound
Health Care System. It is anticipated that the outcomes of this research could be applied to the
development of therapies for type 2 diabetes or other diseases.

John Slattery, University of Washington, budget not to exceed $1,750,000

Program Title: Washington Phenotyped Biospecimen Resource

Program Focus: To develop a resource to provide high-quality, information-rich biological
samples to researchers and startup companies statewide.

Progress in basic and translational research on human disease depends increasingly on access
to samples of fluids (e.g., blood) and tissue ("biospecimens") from large and diverse
populations. Obtaining such specimens can be complicated and time-consuming for scientists
and their research organizations. The Washington Phenotyped Biospecimen Resource (WPBR)
will overcome these obstacles by creating an infrastructure to make specimens more readily
available. This infrastructure will also make the process simpler and more efficient for those
patients who wish to contribute to medical research. All specimens will be “clinically
annotated,” meaning that they will be linked to biologically relevant data on the donors. The
WPBR will: (1) make existing specimens available to biomedical investigators at non-profit and
for-profit organizations throughout Washington, (2) facilitate collection and widespread
distribution of new specimens specifically for research, (3) allow specimens from a single
individual to be obtained at multiple time points, and (4) facilitate identification of consenting
patients for inclusion in clinical trials. This grant will support development of the information
system, initial steps towards sample handling, and other needed capital-intensive
infrastructure, allowing the resource to become financially self-sufficient within three to four
years.

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