



From the Director:

Dear PI4D members,

I want to welcome you back to Purdue University for another semester where we celebrate your success in exploration, study and discovery of the world around us. We are embarking into exciting times of testing computer wisdom and having the precision of altering single nucleotides. I know you share in my enthusiasm for the work we are doing to learn and educate, and ultimately to make this place a better place to live. I am honored to share this stage with you and I am grateful for the work you do to make the Purdue Institute of Inflammation, Immunology and Infectious Disease a true pillar of our great University. I wish you a year full of success.

- Dr. Richard Kuhn
Director, PI4D

PI4D Distinguished Speaker Series

We have created a new seminar speaker seminar series that will be bringing in distinguished leading faculty from around the world. Our first series speaker will be Dr. Scott Hultgren, from Washington University School of Medicine, Department of Molecular Microbiology, Center for Women's Infectious Disease Research. He will be visiting campus on Wednesday, September 13, and he will be presenting a talk entitled, "UTI Complexity Results from Diversity at the Bacterial-Host Interface" in MJIS 1001 from 4:00 - 5:00 (This talk is co-sponsored by the Department of Biological Sciences). See our website for more information.

Purdue Research Foundation-managed Trask Innovation Fund (TIF)

Please note the next deadline to apply for the Trask Innovation Fund is **September 22, 2017!**

The Purdue Research Foundation-managed Trask Innovation Fund (TIF) is a Purdue University development mechanism to assist faculty with work to further commercial potential of technologies disclosed to the Office of Technology Commercialization (OTC). Funds are awarded under the advisement of the TIF Advisory Council, which consists of representatives from the Purdue University Office of the Vice President for Research, Purdue Faculty, Purdue Research Foundation and local business community.

The Fund objective is to support short-term projects (6 months) that will enhance commercial value of Purdue University intellectual property assets for licensing. Financial support is designed to provide an individual technology portfolio up to \$50,000 for a period of six months.

For more details about the Trask Innovation Fund visit our website: <https://www.prf.org/otc/>.

Dr. Ben Youngblood, a faculty at St. Jude Children's Research Hospital, will be presenting his recent work in the field of immunotherapy of colon cancer on September 28. If you would like to meet with Ben while he is here on campus, please feel free to email me a time you would like to meet with him. I will have one of my students escort him to your office or lab.

Ben will be available from 9:00-10:30am and from 2:00-3:30pm, in 30 minute visits.

Thanks,
Keith

Keith Stantz, PhD
Associate Professor, Purdue University
Adjunct Professor, Indiana University School of Medicine
Director of the Medical Physics Program
550 Stadium Mall Dr
West Lafayette, IN 47907
Phone: 765-496-1874

Have a start up? You may be interested in the Entrepreneurship resource portal. Feel free to check it out at <https://ihif.org/2017/07/13/entrepreneurship-resource-portal/>

EVPRP Workshop: Developing Grant Proposals- Sept. 26th-11:30 am to 1:00 pm-STEWE 202
Developing Your Best Proposals: Purdue Grant Writing Strategies and Assistance

Key strategies can help you produce your most compelling grant proposals regardless of funding agency or size of potential award. The workshop, presented by Purdue grant writers, will overview strategies and tools to improve your grantsmanship and will point you to important grant writing resources at Purdue. Learn where to go for campus help as well as begin best practices of:

- Building a compelling storyline
- Responding to a funding agency mission and requirements
- Identifying win differentiators
- Writing for reviewers
- Conducting internal reviews

The workshop will be held on September 26th from 11:30 am to 1:00 pm in STEW 202. Lunch will be provided so registration is required.

Deadline to register is *Thursday, Sept.*

21st at https://purdue.qualtrics.com/jfe/form/SV_6Eh4xAbNwyeFoP3



Graduate Student Perspectives: The Internship

Elizabeth Phillips, PI4D Student Ambassador

I am currently starting the 3rd year of my PhD in Dr. Jackie Linnes's biosensors lab – but am physically more than 2,000 miles away from Purdue. I write this perspective from Global Good in the Intellectual Ventures Laboratory where I will be interning for the next 2 months. I am one of a growing number of graduate students recognizing the value of an internship during a PhD. At least 12 other PhD students in my department alone who have interned in the past year. Across the U.S., 5.5% of 2015 PhD graduates in life sciences and engineering reported completing some sort of internship during their program. That's up from 4.6% just 5 years earlier. So, why take valuable time away from dissertation research to intern? For me, I wanted to experience what research is like in an industry setting, expand my professional network, and diversify my technical skillsets.

For the past 2 years at Purdue, I have been working to develop rapid methods to identify bacterial infections, such as sepsis, at the point-of-care. With support from Purdue's I²D Lab, I've visited collaborating physician-researchers in Eldoret, Kenya to understand first-hand the engineering design needs to impact clinical diagnosis of sepsis. Now, as an intern at Global Good, I am better understanding diagnostic commercialization strategies and learning new technical research skills. A collaborative effort between Bill Gates and Intellectual Ventures, the Global Good Fund aims to combine the power of invention with innovative business strategies to develop solutions that generate sustainable impact in the developing world. I am working alongside 80+ other researchers and engineers addressing all phases of technology development from basic research to implementation. Day-to-day my research investigates low-cost bacteria detection, like I do at Purdue, but through a vastly different lens of digital culturing. When I return to Purdue, I plan to apply my new skills to more efficiently detect low-concentrations of bacteria with an eye for how to translate my research out of the lab. Plus, I hope the experiences and connections I make here in Seattle will help motivate other graduate students at Purdue to pursue an internship!

Walther Oncology Physical Sciences & Engineering

Research Embedding Program

Request for Embedding Project Proposals

Initial Tier One Planning Projects (\$40,000 each)

Tier Two Follow-up Projects (Up to \$200,000 - \$250,000 each)

Tier one Due Dates: September 6, 2017, and Jan 10, 2018

The Walther Oncology Physical Sciences and Engineering Research Embedding Program (Walther Embedding Program), a joint program between the Indiana University Simon Cancer

Center (IUSCC) and Purdue Center for Cancer Research, announces Phase 2 of the Embedding Program. The program is funded by the Walther Cancer Foundation with the goal of creating an environment where clinical perspectives drive the design of new technologies and predictive models to increase the effectiveness of cancer detection, diagnosis, and treatment. The program funds interdisciplinary, collaborative projects between Purdue University and IUSCC. Each team must include: 1) at least one Purdue faculty PI either from the physical or chemical sciences, computer science, mathematics, or engineering, 2) at least one senior clinical faculty PI from the IUSCC, 3) a Purdue postdoctoral trainee/senior graduate student, and 4) an IUSCC medical fellow/resident/junior faculty. There is an expectation that each funded trainee will spend significant time embedded in the other team members' laboratory/environment or clinic.

Successful Research Embedding Teams will be awarded funds to support the following:

1. Postdoctoral trainee/senior graduate student salary
2. Medical fellow/resident/junior faculty salary
3. Project supplies as appropriate to the project
4. Travel between institutions

The program is structured in a two-tier award system.

Tier One

Tier One projects(\$40,000/project) will support small, "embedding" pilot projects for the development of innovative ideas for the clinical translational of new technologies. Successful Tier One projects, upon completion, will have demonstrated: 1) an in-depth, impactful, and implemented embedding plan for the junior trainees (postdocs, senior graduate students, medical fellows/resident, or IUSCC junior faculty) in each research team; 2) a carefully developed research plan that demonstrates the clinical influence in the design of advanced technologies/models/tools; and 3) preliminary prototype/data/technology that demonstrates the feasibility and clinical impact of the project. The project period is five months and no-cost extensions are not allowed. There are two application deadlines for the Tier One program: September 6, 2017, and Jan 10, 2018. (Online submission will be open on August 1, and December 1, 2017.)

Tier Two

Based on the successful implementation of the embedding plan, and scientific and technical merit, the three most successful Tier One projects will be awarded up to an additional \$200,000 - \$250,000 each during the Tier Two, or implementation phase of the project. During this phase, a continued iterative refinement will occur through scheduled progress meetings with the Walther Embedding Program leadership team. Tier Two project period is one year and six months.

All project are expected to result in a high impact on the career direction of the funded trainees,

high quality publications and as appropriate, applications to federal funding agencies for fellowships or grants or advancement to commercialization of new technologies/tools.

Interested faculty in need of collaborators should contact Luanne Bermel at Purdue University (Imi@purdue.edu; 765.496.9316) or Elizabeth Parsons at the IUSCC (eparsons@iupui.edu; 317.278.0078).

Join NIAID and make a difference!

Postdoctoral Position Available

The NIAID Laboratory of Infectious Diseases is soliciting applications for a postdoc intramural research training award position in the Structural Virology Section to study how positive-sense RNA viruses enter human host cells, replicate, and evade the immune response.

Successful applicants should hold a Ph.D. and/or M.D., have less than five years of postdoctoral experience, and experience in immunology or virology. Applicants may be U.S. citizens or permanent residents; for a visiting fellowship, visa requirements apply.

Visit Office of Intramural Training and Education for more information about the position and to apply.

Visit NIAID Careers for more information about working in NIAID's dynamic atmosphere.

HHS, NIH, and NIAID are equal opportunity employers.

Funding Opportunities

Opportunity	Award Amount	Deadline
<u>DOD-Army USSOC Broad Agency Announcement Award</u>		<i>July 28, 2017</i>
<u>NIH Regional Consortia for High Resolution Cryoelectron Microscopy</u>	<i>Varies</i>	<i>August 7, 2017</i>
<u>(U24)</u>		
<u>**Burroughs-Wellcome Career Awards at the Scientific Interface</u>	<i>500,000</i>	<i>September 6, 2017</i>
<u>**NSF Save the Date!</u>	<i>Grants Conference</i>	<i>September 7, 2017</i>

<u>**DOD-DARPA Disruption Opportunity Special Notice: Imaging through Almost Anything, Anywhere (ITA3)</u>	Varies	September 11, 2017
<u>NSF Joint DMS/NIGMS Initiative to Support Research at the Interface of the Biological and Mathematical Sciences (DMS/NIGMS)</u>	Varies	September 1-18, 2017
<u>NIH Cancer Research Education Grants Program to Promote Diversity - Courses for Skills Development (R25)</u>	300,000	September 25, 2017
<u>Research to Advance Vaccine Safety (R01)</u>	Varies	October 5, 2017
<u>NIH Novel Approaches to Understanding, Preventing and Treating Lyme Disease and Tick-borne coinfections (R21)</u>	200,000	October 16, 2017
<u>NSF Ecology and Evolution of Infectious Diseases (EEID)</u>	Varies	November 15, 2017
<u>NIH Oral HIVacc: Synergistic Strategies to Systemic Vaccination (R01)</u>	Varies	November 24, 2017
<u>HHS-CDC Reducing disparities in vaccination coverage by poverty status among young children: An assessment of parental experience, barriers, and challenges with accessing quality vaccination services)</u>	300,000	January 18, 2018
<u>HHS-CDC Economic Studies of Immunization Policies and Practices</u>	300,000	February 22, 2018
<u>NIH Notice of Intent to Publish Funding Opportunity Announcements to Promote Implementation Science (R01) and Dissemination and Implementation Studies (R18)</u>	Varies	Calendar Year
<u>NIH-NIAID Omnibus Broad Agency Announcement</u>	Varies	Varies

****Newly added**

Additional Resources from NIH:
<https://public.csr.nih.gov/Pages/csrwebinar.aspx>

Send us your images and news stories! Images and stories can be deposited [here](#), or email us at pi4d@purdue.edu

