From the Director:

The beginning of July is typically viewed as the halfway mark of summer; for PI4D its time to layout a year’s worth of the upcoming activities. In the upcoming year, we will: be working jointly with home departments to co-host seminars throughout the year, planning a fall symposium on campus which we hope to be as well attended as last year's spring seminar (keep an eye out for a save the date), collaboratively pursing faculty recruitment with the various departments whose hiring interests align with our own, and finally, making some big moves in graduate education.

Be sure to keep an eye out for an upcoming announcement of Pre-Clinical Drug Development workshop that PI4D and Drug Discovery will be co-hosting at the beginning of September. This workshop will focus on the stages of the drug development pipeline after molecule development, but prior to clinical trials.

As always, we welcome your ideas, feedback, and participation as we move forward. I wish everyone a safe, and happy 4th of July

- Dr. Richard Kuhn
  
  Director, PI4D

We are planning a graduate student/post doc symposium for the beginning of August. The full announcement will be coming soon, but please encourage students and postdocs to participate.
Funding Opportunities:

**Burroughs-Wellcome Investigators in the Pathogenesis of Infectious Diseases** The Investigators in the Pathogenesis of Infectious Disease (PATH) award provides $500,000 over five years to support accomplished investigators at the assistant professor level to study pathogenesis, with a focus on the interplay between human and microbial biology, shedding light on how human and microbial systems are affected by their encounters. Candidates will generally have a Ph.D. and/or a clinical doctorate (M.D., D.V.M., etc.). **Sponsor Deadlines:** July 15 – Pre-proposal; November 15 – Invited full proposals.

**NIH BD2K Postdoctoral Training in Biomedical Big Data Science (T32)** The purpose of this Funding Opportunity Announcement (FOA) is to solicit applications for graduate training programs in Big Data Science, for the expressed purpose of training the next generation of scientists who will develop computational and quantitative approaches and tools needed by the biomedical research community to work with Big Data in the biomedical sciences. The proposed training programs should prepare qualified individuals for careers in developing new technologies and methods that will allow biomedical researchers to maximize the value of the growing volume and complexity of biomedical data. **Deadline:** July 25.

**Internal coordination required:** **Arnold and Mabel Beckman Foundation Young Investigators Program**

This program provides grants of approximately $750,000 over four years for young, tenure-track faculty in the chemical and life sciences for projects that “represent a departure from current research directions rather than extensions or expansions of existing programs.” Of particular interest are proposals that open up new avenues of research in chemistry and the life sciences by fostering the invention of methods, instruments and materials. Eligible applicants must be U.S. citizens or permanent residents and should not have been in a tenure-track position for more than three full years. Furthermore, applicants can have no more than $225,000 in direct, annualized external funding grants during any BYI Program Year (Aug-July) at time of application. Start-up funds, department-wide instrumentation grants, and “Transition” grants (such as NIH K99/R00) are not counted toward this total. Letters of intent are due to Beckman by August 15. Full applications are submitted only by invitation. Although this program is not a limited submission, applications do require the signature of both the dean and the president or provost. The Office of the Executive Vice President for Research and Partnerships is assisting the Offices of the President and Provost by reviewing the submissions, editing as needed, and then securing the president’s/provost’s approval to submit. Due to this, we have an internal deadline of **August 1** for application materials as described in the attached document.

**NIH Biological Comparisons in Patient-Derived Models of Cancer (U01)** The purpose of this FOA is to
encourage applications wherein similarities and differences in the underlying biological mechanisms that drive cancer phenotype and response to perturbations between two or more patient-derived models of cancer originating from a common patient sample are delineated and compared. Deadline: September 14

**NIH Initiative to Maximize Research Education in Genomics: Diversity Action Plan (R25)** The over-arching goal of this program is to support educational activities that enhance the diversity of the biomedical, behavioral and clinical research workforce in genomics. This FOA seeks to expose underrepresented students at the undergraduate, post-baccalaureate and graduate levels to the foundational sciences relevant to genomics to enable them to pursue careers that span all areas of interest to NHGRI-genome sciences, genomic medicine and genomics and society. Deadline: September 25

**DOD-CDMRP Peer Reviewed Cancer Research Program (PRCRP) Horizon Award.** The Horizon Award supports junior-level scientists in conducting impactful research with the mentorship of an experienced cancer researcher. The Horizon Award challenges junior scientists to develop and implement research in the cancer field. This opportunity allows for junior investigators to develop a research project, investigate a problem or question in the field of cancer, and further their intellectual development as a cancer researcher of the future. Pre-application due August 17; Application due September 28

**NIH Informatics Methodology and Secondary Analyses to Explore Shared Immunology Study Data in ImmPort (UH2)** The goals of this FOA are to support the development of new or improved informatics tools and methods for the reuse of shared data in the immunology study repository, ImmPort; and to support secondary analyses of existing immunology datasets to address basic and clinical immunology questions. Deadline: October 4.

**NIH The Role of Mobile Genetic Elements in Cancer** This FOA encourages applications to investigate mechanisms regulating the expression and activity of mobile genetic elements, including long terminal repeat (LTR) and non-LTR retroelements, in cancer. Research proposals should specifically investigate mechanisms regulating the expression and activity of mobile genetic elements in the context of cell transformation and assess the impact of their activity on tumor heterogeneity, cancer evolution, and response to therapy.

- **R01** Deadline: October 5
- **R21** Deadline: October 16
**NIH Metabolic Reprogramming to Improve Immunotherapy**  The overall goal of this FOA is to encourage grant applications to (a) generate a mechanistic understanding of the metabolic processes that support robust anti-tumor immune responses in vivo, (b) determine how the metabolic landscape of the tumor microenvironment affects immune effector functions, and (c) then use this information to manipulate (reprogram) the metabolic pathways used by the tumor, the immune response, or both to improve cancer immunotherapy.

- **R01** Deadline: October 5
- **R21** Deadline: October 16

**NIH Systems Approach to Immunity and Inflammation (U19)**  This FOA seeks to develop a comprehensive understanding of innate and adaptive immune responses triggered by pathogens, adjuvants, or vaccines using a systems biology approach. The basis of the research program will be to conduct forward genetic screens of mutant or genetically diverse mice, combined with systems level analysis, to identify previously unappreciated key immune regulatory genes, signaling pathways, or mechanisms; and will include validation of these pathways in human cells and tissues.  Deadline: November 2.

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**Did you know?**

Purdue Veterinary Clinical Trials Support Services helps researchers to conduct clinical studies (including clinical trials) in the College of Veterinary Medicine's Teaching Hospital. A division of the Center for Comparative Translational Research, the professional staff can assist you with identifying clinical-collaborators for your study, consult with you on your study design, and help with recruitment and enrollment, data collection, and data analysis! For more information, please visit their website.

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