Department of Entomology Jerry B. Graves
Distinguished Seminar Series

Title: Environmental genomics
: Can sequencing open the biodiversity “Black Box”?

Date: October 20, 2017 - 2:00 PM

Location: Life Sciences Building Annex A101

Dr. W. Kelley Thomas
Hubbard Endowed Chair and Professor, Department of Molecular, Cellular and Biomedical Sciences & Director, Hubbard Center for Genome Studies, University of New Hampshire

Dr. Thomas is currently the Director of the Genomics and Bioinformatics Core for the New Hampshire INBRE and the Director of the Research Core for the Center of Integrated Biomedical and Bioengineering Research, a COBRE at the University of New Hampshire.

Key goals of Dr. Thomas' research program are to increase the understanding of the mechanisms of molecular change and develop critical links between molecular and organismal evolution.

Current research in his lab focuses on the application of next generation sequencing technologies to increase the understanding of response of organisms to environmental change and patterns of global biodiversity. Developing bioinformatics modules for workshops and curricula is a major output from his program.

After receiving his B.S. from University of Redlands (CA), Dr. Thomas was awarded his M.S. and Ph.D. in Biology from Simon Fraser University (B.C., Canada).

Dr. Thomas has published over 170 peer reviewed publications, as well as numerous book chapters.

He has received numerous national and international awards of distinction. In 2011, he received the UNH Excellence in Research Award. In 2014, Dr. Thomas was elected Fellow of the Society of Nematologists. Recently, he was named STEM Research Exemplar, Washington University (NIH sponsored program).

Dr. Thomas has had sustained funding from prestigious national and international funding sources, including:

1. National Science Foundation: BAC Libraries from Diverse Crustacean Taxa Phylum Nematoda; Integrating Multidisciplinary Expertise Infrastructure for Resolving Relationships in a Major Branch of the Tree of Life; Accelerating the Molecular/ Morphological Inventory of Meiofauna; Marine Nematodes of Mexico’s Threatened Gulf of California
2. National Institutes of Health: The Rate and Molecular Spectrum of Spontaneous Mutations; Daphnia Functional Comparative Genomics Resource; Bioinformatics "Train the Trainer" T3; The Integration of Bioinformatics into the Undergraduate Curriculum
3. Gulf of Mexico Research Initiative: Genomic Responses to the Deepwater Horizon event and development of high-throughput biological assays for oil
The video conference will take place via viewme.

1. Download & install viewme Client software here.
2. Run viewme and enter your ‘Nickname’
3. No LOGIN REQUIRED.
4. Enter “Meeting ID” : LBRN-EVENT

2018 LBRN Annual Meeting

The 2018 LBRN Annual Meeting will be held at the LSU Health Sciences Center in Shreveport.

Please see below for additional information.

- What: 2018 LBRN Annual Meeting
- When: January 26 – 28, 2018
- Where: LSU Health Shreveport

Additional information will be updated in the next LBRN Newsletter and webpage. Please mark these dates on your calendar.

LONI HPC Allocation for LBRN
We are happy to announce that High Performance Computing allocation for supporting LBRN/BBC Core community from the LONI HPC system.

This can be utilized in lieu of individual investigators having to apply for and acquire their own allocations to access the HPC resources. If any of your campus members need access to high performance computing, please have them interface with Dr. Nayong Kim.

LBRN Call for Proposals

The purpose of this release is to solicit Letters of Intent for new project proposals to be funded by the LBRN. The RFAs for each funding programs listed here can be accessed using the clicking on the respective title. The expected start date for these projects is May 1, 2018. The selection and distribution of these projects by the Steering Committee will be based on the quality of the proposal and the needs of the LBRN program. Proposed projects should be consistent with the program’s focal research areas. All interested researchers are encouraged to contact Dr. Ramesh Subramanian rami@lsu.edu prior to submitting a proposal to ensure that the proposed research is eligible for inclusion in this program. The letter of intent should be submitted using the LBRN-InfoReady-Review online form (use the links below) no later than 4:30 pm on September 11, 2017. Only
those applicants who submit the LOI will be able to submit a proposal.

RFAs (click on title to download proposal information)

1. Letter of Intent for LBRN Full Projects 2018-2021
2. Letter of Intent for LBRN Pilot Projects 2018-2019
4. Letter of Intent for LBRN Startup Projects 2018-2020
5. Letter of Intent for LBRN Translational Projects 2018-2019

CFA for Short Term Core Projects

Molecular Cell Biology Research Resources Core (MCBRC) and Bioinformatics, Biostatistics, and Computational Biology Core (BBCC) are calling for proposals to carry out short term projects in collaboration with the Cores. All LBRN researchers can submit a proposal for a defined project that can be carried out in collaboration with the Core facilities listed in the attached Call for Proposals (CFP) on a competitive basis. Each selected project will be allocated $1,500 to fully or partially offset Core expenses. More details can be found in the attached CFP.

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NIH Extramural Nexus (NIH/OD)

Implementing a New Human Subject and Clinical Trial Information Form

We have been talking a lot recently about NIH’s efforts to improve transparency and trust in NIH funded clinical trials. One important aspect of this effort is improving our ability to identify and describe the clinical trials we are supporting. In fact, a March 2016 GAO report GAO-16-304, entitled Additional Data Would Enhance the Stewardship of Clinical Trials across the Agency, highlighted the fact that “NIH is limited in its ability to make data-driven decisions regarding the use of its roughly $3 billion annual investment in clinical trials.” Many of the other aspects of this initiative, applying clinical trial specific review criteria, improving oversight, and registering and reporting in ClinicalTrials.gov depend upon our basic ability to identify and describe clinical trial applications and awards.

The new PHS Human Subject and Clinical Trial Information form will flag trials, helping us to achieve a number of goals. The form consolidates into a single location information on human subjects that is currently scattered across a number of forms. It allows us to capture structured and semi-structured descriptive information for
each study included in a grant application or contract proposal, which will allow us to
clearly identify which funded studies will require registration and timely reporting of
results.

Read the Items of Interest article for more details!

- Patents and the Relative Citation Ratio: Correlations to
  Assess NIH Impact

We previously referenced Ioannidis’ and Khoury’s “PQRST” mnemonic for describing
research impact: “P” is productivity, “Q” is quality, “R” is reproducibility, “S” is sharing,
and “T” is translation. We wrote several blogs about “P” productivity, focusing on
publications, citations, and more recently the Relative Citation Ratio. Now we’ll
focus on a different kind of “P” for productivity, namely patents (which arguably are
also related to “T” for translation). We’ll also take a brief look at “S” for sharing.

In the April 7, 2017 issue of Science, Danielle Li [now with the Massachusetts
Institute of Technology (MIT)], Pierre Azoulay (MIT), and Bhaven Sampat (Columbia
University) published an investigation on the patent productivity of NIH grants. They
identified over 365,000 grants NIH funded between 1980 and 2007, and linked them
to patents. Two kinds of links were identified: “direct” links in which a patent cited an
NIH grant, and “indirect” links, in which a patent cited a paper which in turn
acknowledged support from an NIH grant.

Continue reading...

Top Stories

- New Certificates of Confidentiality Policy in Effect

As discussed in recent Open Mike blog posts, NIH issued a new policy to enhance
the privacy protections of individuals participating in NIH funded research studies.
The policy eliminates the need for NIH funded investigators to apply for a certificate
of confidentiality (CoC). As of October 1, 2017, NIH funded researchers no longer
have to request a CoC. The CoC will be issued automatically to awards funded
wholly or in part by the NIH that collect or use identifiable, sensitive information.

We encourage you to visit our Certificates of Confidentiality website which we have
recently updated to reflect the new CoC policy and the disclosure rules that apply to
those that hold CoCs.

- Guidance for Institutions Impacted by Hurricane Maria,
  and a Reminder of NIH’s Natural Disaster Resources

Due to the exceptional impact of Hurricane Maria, we want to assure grantees that
NIH will be doing our part to help you continue your research. Recently, we published
an NIH Guide Notice that outlines the application and report submission flexibilities
available for Puerto Rico and the U.S. Virgin Islands. We have previously published
guidance for those affected by other major hurricanes this year (Hurricane Harvey
and Hurricane Irma) and we update our Extramural Response to Natural Disasters
web page with the most recent guide notices related to natural disasters. This page
also has additional helpful resources, including guidance on animal welfare issues.

We will be continuing to monitor the situation closely, identifying ways we can help as
outlined on the Extramural Response to Natural Disasters page, and publishing
additional information in the NIH Guide.

New Resources

- New Video Provides Overview of New NIH Policies on
  Human Subjects Research and Clinical Trials
Do you do research with human participants? If so, you play an important role in NIH initiatives to improve accountability and transparency in the human subject research we fund. Our 15 minute video, Overview of New NIH Policies on Human Subjects Research and Clinical Trials, provides a succinct explanation of the various policy changes and what they mean for you.

- New NIH Resource for Studies that Randomize Groups or Clusters or that Deliver Interventions to Groups

Experiments, including clinical trials, differ in the methods used to assign participants to study conditions or arms and to deliver interventions. Thanks to the Office of Disease Prevention, the NIH has a new website that provides resources on research methods related to experiments that randomize groups or clusters or that deliver interventions to groups. The information is relevant for human and animal studies and for basic and applied research. The website includes a calculator to estimate sample size requirements for group- or cluster-randomized trials.

Planning Your Scientific Journey

An online innovative course on "Planning your Scientific Journey" is being offered by iBiology Courses, an online learning system, developed with support from NIGMS’ IPERT program.

Please check details at: https://courses.ibiology.org/courses/course-v1:iBiology+iBio1+2017_2/about

The course starts on October 2, 2017 and ends November 13, 2017.

LA CaTS Center Pilot Grants Program

- Seeking research applications to support highly innovative projects aimed at preparing major publications and grant applications to compete for extramural funding (e.g. NIH, DOD, or Foundations).
- Should address biological, epidemiological or clinical issues related to specific diseases that have a high prevalence among the population of Louisiana, including, but not limited to, obesity, diabetes, cancer, cardiovascular disease, and HIV/AIDS.
- Each award may be up to $50,000/year in total costs for one year. A second year of support may be offered, but is not guaranteed.

More Information

LSU HPC Training

LSU HPC@LSU | Training | Weekly
The schedule for the Fall 2017 HPC Training is available at http://www.hpc.lsu.edu/training/tutorials.php.

Our next HPC training will be held on Wednesday, October 25 at 9:00 AM in 307 Frey Computing Service Center and broadcast through WebEx for remote users.

Note that all HPC trainings will start at 9:00AM.

Wednesday, October 25, 2017: Introduction to Python

Python is a high-level programming language, easy to learn yet extremely powerful. This training will provide an introduction to programming in Python. The subjects include basic Python syntax, Python classes used in object-oriented programming, Basic Python modules for scientific computing and plotting will also be introduced. During the training, simple Python programs will be provided for demonstration.

Prerequisites: Basic understanding of a programming language is assumed but not required.

Next HPC Training:

Wednesday, November 1, 2017: Parallel Computing with R

R is a widely used language in data analysis with rich features. Its performance, however, is limited by the fact that it is single-threaded. On the other hand, to take advantage of the processing power of HPC clusters, computer programs need to be able to run in parallel. In this tutorial, we will focus on how to use the "parallel" package in R and a few related packages to parallelize and enhance the performance of R programs.

Prerequisites: Basic understanding of R is assumed but not required.

Please visit http://www.hpc.lsu.edu/training/tutorials.php for more details and register using the link provided.

Users who plan on joining remotely will be provided with a WebEx Link in their registration confirmation email. Please see the system requirements at https://grok.lsu.edu/Categories.aspx?parentCategoryId=3381.