



Hunter College, the City University of New York



for Addressing Health Disparities and Improving Health Outcomes

From the Director...



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PI/PD, CTBR

It is with great pleasure and pride that we profile in this issue the promotion of two outstanding RCMI researchers to important positions within the City University of New York system. Both Dr. Rabinowitz and Dr. Quiñones-Jenab worked tirelessly for the RCMI Program at Hunter College as productive researchers in the Department of Psychology. We offer them our best wishes and continued support.

In October, we held the first CTBR luncheon with the participation of full and associate members. The event was a resounding success because it brought together Hunter College researchers from various disciplines that used the opportunity to discover synergy between their diverse research projects. The next luncheon will take place on Friday December 18th and the topic for discussion will center on the needs for building and sustaining a Bioinformatics Core Research Facility. The need for computational capability is increasing for both basic and translational research scientists at Hunter College. It is a great challenge but together we will succeed in this endeavor and will continue to meet the evolving research needs of the CTBR at Hunter College.

Highlights...

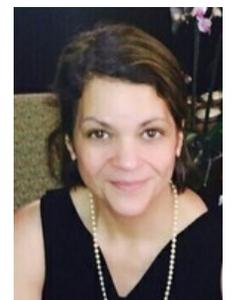
PROMOTIONS: We congratulate three long-term CTBR members on their promotions!

Vita Rabinowitz and **Vanya Quiñones-Jenab** have both been long-time members of the CTBR. Serving on the finance as well as steering committees they proved to be avid supporters of the programmatic goals of the RCMI grant. Dr. Rabinowitz served as chair of the Department of Psychology, as co-director of the [Gender Equity Project](#), as acting associate provost, and as acting provost. She was named provost in 2007. [In 2015 Dr. Rabinowitz was named Executive Vice Chancellor for Academic Affairs and University Provost.](#) Dr. Quiñones-Jenab who also served as chair of the Department of Psychology and continues to co-direct the [BP-ENDURE](#) program. In 2015 Dr. Quiñones-Jenab was named [Acting Associate Provost for Student Success and Retention.](#) Another CTBR member, **Christopher Braun**, has filled the role of chair for the Psychology department.



Vita Rabinowitz

ALLYSON FRIEDMAN, a CTBR funded new faculty hire at Hunter College's Department of Biological Sciences, is the 2015 Postdoctoral [Blavatnik Regional Awards](#) finalist. She received the award on November 9 at the New York Academy of Sciences [Annual Gala](#). Dr. Friedman is an expert in cellular neurophysiology whose research explores the ionic and neural circuit mechanisms of susceptibility and resilience to major depressive disorder with a goal of identifying novel targets for treatment. She has worked with patients with mental health disorders and explored the biological mechanisms that underlie the protective effects of social support. Dr. Friedman received her PhD from the Icahn School of Medicine at Mount Sinai and joined Hunter this fall.



Vanya Quiñones-Jenab

Infrastructure...

BIOINFORMATICS RESOURCE -- Latest updates

INFRASTRUCTURE: Currently all infrastructure for the bioinformatics resource are fully operational, this includes the computer cluster and sequencer. We are in the final stages of implementation and fine tuning the last remaining items (eg. cluster web interface and backup storage disk array).

USAGE: During the past few months a number of labs have requested access to the bioinformatics resource, including the cluster (Xie, Qiu, Waldron, Holford labs) and the sequencer (Feinstein, Qiu, Ogunwobi labs). We have created cluster user accounts for lab members and private data directories with quotas for each lab. Sequencing projects are underway for the Feinstein and Holdford labs, with additional projects for the Ogunwobi and Qiu labs planned for the immediate future. To start-up a Next-Gen Sequencing facility, CTBR has provided funding to purchase a set of Library Prep Kits (covering applications such as RNA, exome, amplicon sequencing). These are currently available at no cost for initial sequencing runs. The Kits have 12-18 months expiration dates and should be consumed within 2016.

PERSONNEL: The process for a part time CTBR hire for the facility is well underway. Two promising candidates are identified following phone interviews and programming exercises of approximately ten applicants. The next step is on-site interviews to which faculty will be invited to participate and help select the best candidate.

TRANSITION FROM RESOURCE TO FACILITY:

Computer cluster and data analysis: the first stage of transitioning to a facility will involve hiring a part time personnel to assist with data management, bioinformatics analysis, training and outreach for the labs that are looking to perform data analysis on the cluster. Currently these tasks are performed by Mr. Lijeron (technical support) and Dr. Krampis (scientific contact for the design of bioinformatics experiments). Given that the most complex aspect of bioinformatics is the computing and data analysis, we will maintain one full time personnel at all times (new part time hire in addition to Mr. Lijeron's time) available to support the computational aspect of the facility. We envision the facility providing services to multiple labs, and coordinating multiple projects in a high capacity mode. Therefore, our goal with the CTBR renewal is to secure a full-time hire who could become the main point of contact for researchers.

Sequencing: Next-Gen Sequencing operations of the resource are commercially standardized through Illumina Library Prep Kits and Agilent Bioanalyzer Chips. Transitioning to a facility, each laboratory that needs sequencing will have to prepare the Library Kits by using the protocols/ instructions provided by the manufacturer. Up to this point, the Hunter laboratories performing Next-Gen sequencing have been sending samples to outside services. With the Bioinformatics facility and with each lab preparing their own Illumina Library Kits, researchers will have more control over the parameters of the sequencing. This reduces costs and provide opportunities for each lab to train students and postdocs competitive sequencing laboratory techniques that are now becoming commonplace and displace traditional laboratory methods in studying gene expression, genomic functions etc. During this process of setting up a sequencing experiment Dr. Krampis will provide advice by working closely with researchers for the experimental design, selection of appropriate sequencing kit and optimization of the protocol for the specific needs of each lab. When each laboratory has prepared their sequencing kits, they will bring them to the facility for loading into the sequencer. The facility staff will operate the sequencer, retrieve that data and perform basic quality checks, then transfer the data on the computer cluster to support sequencing data analysis and discovery.



Temperature controlled room with genome sequencing equipment



Sequencing station with Agilent BioAnalyzer and MiSeq sequencer

GUIDELINES: Our in-progress bioinformatics website will include details on:

- available computational infrastructure
- available software on the cluster (with additional notes generated by Mr. Lijeron beyond standard documentation available for the tools)
- best practices, protocol for requesting access and allocation and pricing
- available sequencing infrastructure including list of Illumina Library Prep kits from the facility startup
- Training material:
 - Videos generated by Illumina reps during the sequencer setup and training and in-house generated videos and slides.
 - Notes and material from consultations with faculty for sequencing or computational experiments that took place in the facility.

Events...

SYMPOSIUM: The 29th Annual International Symposium of the CTBR will be held at The Kaye Playhouse at Hunter College of CUNY on **Thursday May 5, 2016**. The topic is [Current Advances in Prostate Cancer Health Disparities](#). The planning committee chaired by Olorunseun O. Ogunwobi, has secured Harry Belafonte to speak on his personal experience with surviving prostate cancer. Other speakers will be announced on the symposium website.

SAVE THE DATE
Thursday May 5, 2016

COLLOQUIUM: Jill Bargonetti has invited Arnold J. Levine to give a talk on *The Evolution of Tumors from Cells with Inherited p53 Mutations in Humans and Mice* on Tuesday, January 12, 2016 at 12:00 Noon. Read more [here](#).

RECRUITING TRIPS: The CTBR made two recruiting trips this fall: Society for Advancement of Chicanos/Hispanics and Native Americans in Science ([SACNAS](#)) which was held in Washington, DC (October 29 – 31) and the Annual Biomedical Research Conference for Minority Students ([ABRCMS](#)) which was held in Seattle, Washington (November 11 – 14, 2015).

Grants & Awards...

Congratulations to all CTBR Members who received external funding! Details are in the [November](#) and [December](#) issues of the Hunter College Office of Research Administration Grants Update Newsletter.

Want to offer a story idea? Have a comment or question about a story you've read here? Send us an email: [ctbr\[at\]hunter.cuny.edu](mailto:ctbr[at]hunter.cuny.edu)
You can find archives of CTBR Newsletters [here](#)

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