2012 REU Program in Computational Systems Genomics of Neuropsychiatric Phenotypes

$4,000 Stipend
Research awards are based on academic excellence and potential. Students are given lab space to work on projects with mentor support.

Conte Center Training Focus
The Center is training the next generation of scientists and physicians in the art and science of translational mental health research.

Applicants
REU participants are selected from a nationwide pool of undergraduates. The program provides summer housing on the campus of the University of Chicago.

University of Chicago
Stanford University
Columbia University
Northwestern University
University of Illinois at Chicago
University of Haifa
Harvard Medical School

Gene-specific p-values

Disorders

Autism
Bipolar Disorder
Schizophrenia
The Conte Center seeks highly qualified undergraduates for Research Experiences for Undergraduate (REU) projects. This program will be at the University of Chicago. Housing is in the Max Palevsky Residential Commons. Breakfast and dinner meals will be provided. Stipends of $4,000 per summer quarter (June 13 - August 17, 2012) for biology investigations, or per year for honors research activities, are available. They will be awarded on a competitive basis based on academic excellence, motivation, scientific potential, and career goals aligned with Conte interests. Applicants with computational science backgrounds are especially encouraged to apply. Participants must be U.S. citizens or permanent residents. Students must be enrolled in an accredited undergraduate degree program with a concentration in a biological sciences related field.

If selected, students will be matched with a faculty researcher and other lab associates who will help mentor REU activities. There will be a mid-summer working lunch and journal club program to discuss research projects and papers. At the conclusion of the REU, students will produce a written report and present research findings at a REU Conte symposium.

The Conte Center is led by the University of Chicago but includes collaborating investigators at Stanford University, Columbia University, Northwestern University, the University of Illinois at Chicago, the University of Haifa, and Harvard Medical School. Conte research projects focus on neuropsychiatry; genetic architectures and environmental factors associated with neuronal development and function; disturbances in neuronal patterning, connectivity, neurochemistry, neurophysiology correlated with behavior; risk alleles; points of relevant pathways, regulatory networks, & computational tools; and predictive models for studying phenotype-gene-environment associations.

REU students may use modeling applications and core technology resources. Participants will have University of Chicago privileges with access to libraries, athletic facilities, and social and cultural events.

Deadline for receipt of application materials is February 24, 2012. To apply, send via mail or email the filled out application, personal statement, official transcript, and two letters of recommendation to:

Barry Aprison, Ph.D.
University of Chicago
Institute for Genomics & Systems Biology
Knapp Center for Biomedical Discovery
900 East 57th Street, Rm. 10-114
Chicago, IL 60637
baprison@bsd.uchicago.edu
2012 REU Program in Computational Systems Genomics of Neuropsychiatric Phenotypes
research experiences for undergraduates

2012 Summer Conte Research Experiences for Undergraduates Application
Application Deadline: February 24, 2012

Name (first, middle, last):  

College or University:  

Major field of study:  

College address:  

Current year of study:  

Expected graduation date:  

Home address:  

email:  

College phone:  

Home phone:  

Date of birth:  

Place of birth (city, county, country):  

Citizenship (must be US citizen or permanent resident):  

U. S.  

Other  

(country)  

U.S. Permanent Resident  

Social Security number:  

Ethnicity:  

African-American  

Hispanic  

Asian-American  

Native American  

Caucasian  

Other  

Overall GPA:  

GPA in science and math-related subjects:  

Previous colleges or universities attended:  

Have you participated in a REU program before?  

If so, when? & where?  

Conte REU students will reside in single suites in the Max Palevsky Residential Commons at the University of Chicago. Breakfast and dinner meals will be provided. Participants will move in on June 13, 2012. The next day, June 14th, is a morning kick-off meeting. Research projects then start.
Research area(s) of interest:
- Gene associations and genetic linkage data regarding bipolar disorder, schizophrenia, & autism
- Large-scale predictive modeling and analyses of phenotypic and environmental records
- Cataloguing genome annotations and enhancing understandings about the biological basis of complex human disorders
- Genetic variation, pathways, proximity of genes in molecular networks, and relationships to environmental stimuli & behavior
- Mathematical models that analyze genomic, clinical and pharmacogeneomic data with computational tools
- Other:

Describe your specific interest regarding this program (e.g. experiment or theory, particular research area, or project if strong preferences exist):

________________________________________________________________________________________________________________________________________
________________________________________________________________________________________________________________________________________

Relevant Work, Life, or Laboratory Experience (employer, type of work, dates of employment, talents and practical skills, previous participation in an REU or other summer program):

________________________________________________________________________________________________________________________________________
________________________________________________________________________________________________________________________________________
________________________________________________________________________________________________________________________________________
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Computer Experience (Please list the types of computers you have used and any programming languages or operating systems with which you have had experience):

________________________________________________________________________________________________________________________________________
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Please include along with the application a personal statement (of at least 200 words) describing your academic and research goals and how participation in the Conte REU summer program at the University of Chicago would help you achieve these goals.

Personal Statement:

Please mail or email your completed application to:

Barry Aprison, Ph.D.
Senior Lecturer, BSCD
Education and Outreach Director, IGSB & GGSB
Knapp Center for Biomedical Discovery
University of Chicago
900 E. 57th Street, Rm. 10-114
Chicago, Illinois 60637
baprison@bsd.uchicago.edu

Your separate confidential letters of recommendation and official transcript can be mailed or emailed.
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Letter of Recommendation

Name of applicant: ____________________________________________________________

In accordance with the provisions of the Federal Education and Privacy Act of 1974, enrolled students have the right to see their letters of recommendation unless they have explicitly waived that right.

Circle one:
I waive my right of access to this recommendation. • I do not waive my right of access to this recommendation.

__________________________________________  Date
Signature of applicant

__________________________________________
Name of respondent (Please print)

__________________________________________
College, University, or Company

__________________________________________
Department

__________________________________________
Title and Position

Note to respondent: We appreciate your candid evaluation of the applicant named above. We are interested in how long and in what capacity you have known the applicant, your impression of the applicant's initiative, intellectual capabilities, resourcefulness, and any other specific qualities that you feel are important to judge his or her potential for further study and research leading to a career in the biological sciences.

__________________________________________  Date
Signature of respondent

Please mail or email the completed recommendation by February 24, 2012.