

**Large-scale discovery in Chicago:
Screening facilities at the three CBC institutions**

Moderator: Eric Weiss (NU)

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Whether you're developing a new way to find compounds that affect specific biological processes or have a validated assay in hand and are ready to screen, Chicago offers a rich set of shared resources to help you succeed. Three core facilities are available to the Chicago-area research community: Northwestern University's High Throughput Analysis (HTA) lab, University of Chicago's Cellular Screening Center (CSC), and University of Illinois - Chicago's brand new High Throughput Screening (HTS) facility.

In some respects these facilities offer similar things, and together they give Chicago world-class screening capability. All of them provide access to sophisticated robotic liquid handlers, which allow setup and manipulation of experiments that involve hundreds to thousands of samples. All provide access to cutting-edge photometric instruments, and the Northwestern and University of Chicago facilities offer "high-content analysis", which is essentially large-scale microscopy. Each facility also has unique capabilities that are best explored at their websites or in conversation with their staff.

- **Northwestern's HTA lab** is located at the University's Evanston campus and can be found online at www.northwestern.edu/hta. It has been in operation since 2007 and routinely performs a broad range of screens, including tissue culture assays, biochemical analysis, and experiments involving microbial strain collections. The HTA lab has unique strength in nanoliter liquid handling and assays that require highly parallel kinetic analysis. Chi-Hao Luan, the facility's director, can be reached at launch@northwestern.edu.

- **University of Chicago's CSC** has also been operational since 2007 and has conducted dozens of large-scale screens. More information about this facility can be found at www.igsb.org/services/csc/. The CSC has a robotically-integrated screening platform set up in a class-100 clean room, which allows sophisticated experiments with tissue culture cells under essentially sterile conditions. The facility's automation capability allows an exceptionally high throughput. Sam Bettis directs the CSC, and he can be reached at bettis@bsd.uchicago.edu.

- **The University of Illinois – Chicago HTS facility** (www.rrc.uic.edu/hts) has just been established, and offers access to liquid handling platforms that are integrated with a range of assay equipment (such as incubators and shakers) and instruments for photometric analysis. The HTS facility provides access to over 100,000 drug-like compounds. Kiira Ratia runs the facility, and she can be reached at kratia@uic.edu.