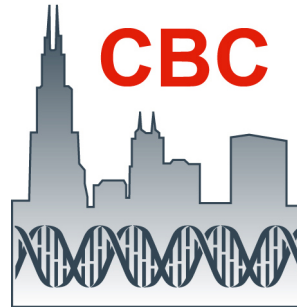


Chicago Biomedical Consortium



Lunch and Learn with the CBC
Jim Audia, Executive Director, CBC
September 1, 2017

www.chicagobiomedicalconsortium.org

The CBC gratefully acknowledges support from the Searle Funds at The Chicago Community Trust.



CBC 15th Annual Symposium

“Small Molecule Drug Discovery”

Friday, November 17, 2017

9:00 AM – 6:00 PM

University of Illinois at Chicago

UIC Forum

Karin BRINER

Novartis
Creating New Medicines:
First- and Best-in-Class Therapeutics
in Difficult Target Space

Ray MOELLERING

The University of Chicago
Chemical Proteomic Platforms to Expose
and Exploit Metabolic Pathways in Cancer

Victoria RICHON

Ribon Therapeutics
Transforming Scientific Discoveries into
New Therapies

Brian SHOICHET

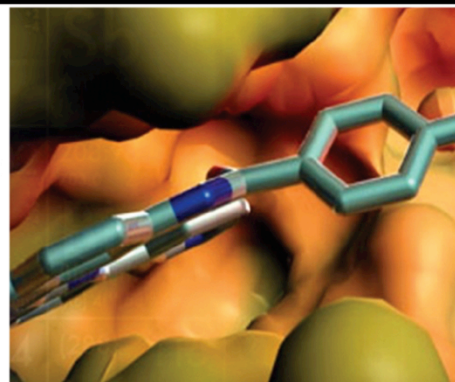
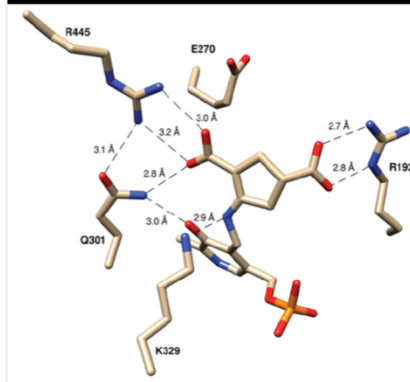
University of California, San Francisco
New Chemotypes for New GPCR Biology

Richard SILVERMAN

Northwestern University
CPP-115: A Novel GABA Aminotransferase Inactivator
and Potential New Treatment for Epilepsy, Addiction,
and Hepatocellular Carcinoma

Gregory THATCHER

University of Illinois at Chicago
A Collaborative Drug Discovery Map for UIC:
Cultural Mountains; Funding Cliffs;
and Industry Diversions



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CBC Mission



The mission of the Chicago Biomedical Consortium (CBC) is to stimulate collaboration among scientists at Northwestern University, The University of Chicago, the University of Illinois at Chicago and others to accelerate discovery that will transform biomedical research and improve the health of humankind. The CBC will:

- Stimulate research and education that bridge institutional boundaries,
- Enable collaborative and interdisciplinary research that is beyond the range of a single institution,
- Mentor and develop a strong cadre of biomedical leaders, researchers, and entrepreneurs in Chicago,
- Enhance and promote the development of the biomedical ecosystem in Chicago,
- Facilitate development of therapeutics that will, over the long term, improve the health of citizens of Chicago and beyond.



CBC Historical Perspective



The Searle Consultants' stated strategy for biomedical grant making is as follows:

“To promote a new infrastructure for success for the biomedical industry in the greater Chicago region by leveraging opportunities for collaboration throughout the pipeline:

- A) from supporting research institutions bringing top talent to the area,*
- B) to providing technical assistance to start-up companies,*
- C) to supporting training/education programs for job development.”*

During Phase 1 (through December 2016), the CBC has:

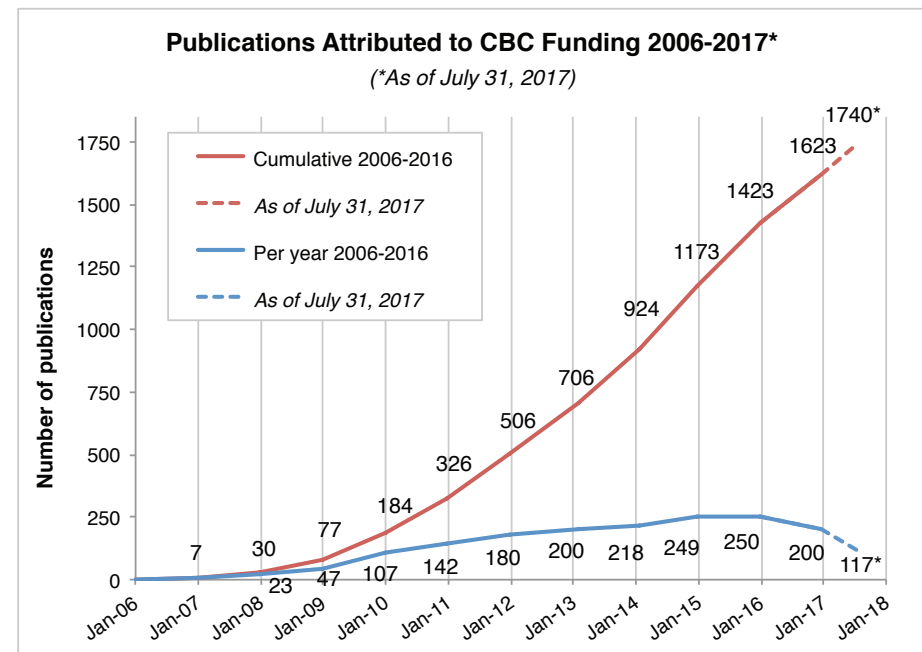
- Made **235 Awards**, including **80 Catalysts**, **7 Sparks**, **6 Levers**, **35 HTS** and **107 Postdoctoral Awards** that have generated discoveries in a wide range of areas.
- Helped to recruit **8 outstanding faculty** members to CBC universities.
- Organized and sponsored **14 annual symposia** and over 30 other events.
- Provided funding for **cutting-edge scientific instruments** that are available to CBC researchers via the pathbreaking, CBC-facilitated **“Open Access Initiative”**.



CBC Phase 1 Impact

Impact on Scientific Discoveries

Research funded by CBC award programs has yielded a total of **1740 publications** (as of July 31, 2017). These papers, most in high-impact journals, report advances in many biomedical subject areas, moving science forward on many fronts from the design of unique instruments and reagents for research to explorations of the basic mechanisms of human biology in health and disease. The graph on the right shows yearly publications (*in blue*) and cumulative publications (*in red*).



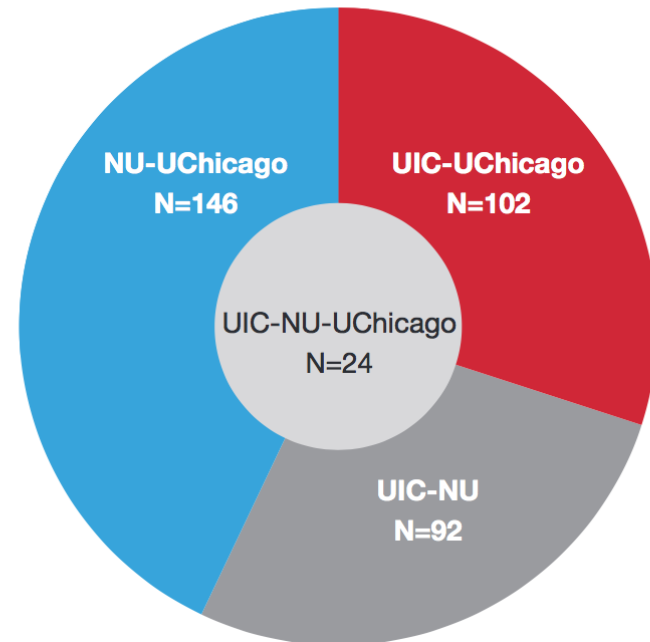


CBC Phase 1 Impact

Impact on Collaboration in Chicago

The CBC has inspired a range of inter-institutional collaborations. For example, **364 inter-institutional teams** applied for Catalyst Awards to undertake new projects (*right*). Teams have been comprised of over 560 faculty members from all three CBC universities. Many teams have been partnerships of junior and senior faculty. While most applications have come from teams representing two universities, about 7% of the teams have included faculty from all three universities. Many of the teams continue to collaborate after Catalyst funding ends.

Collaborative Catalyst Teams 2006-2016
(N=364)

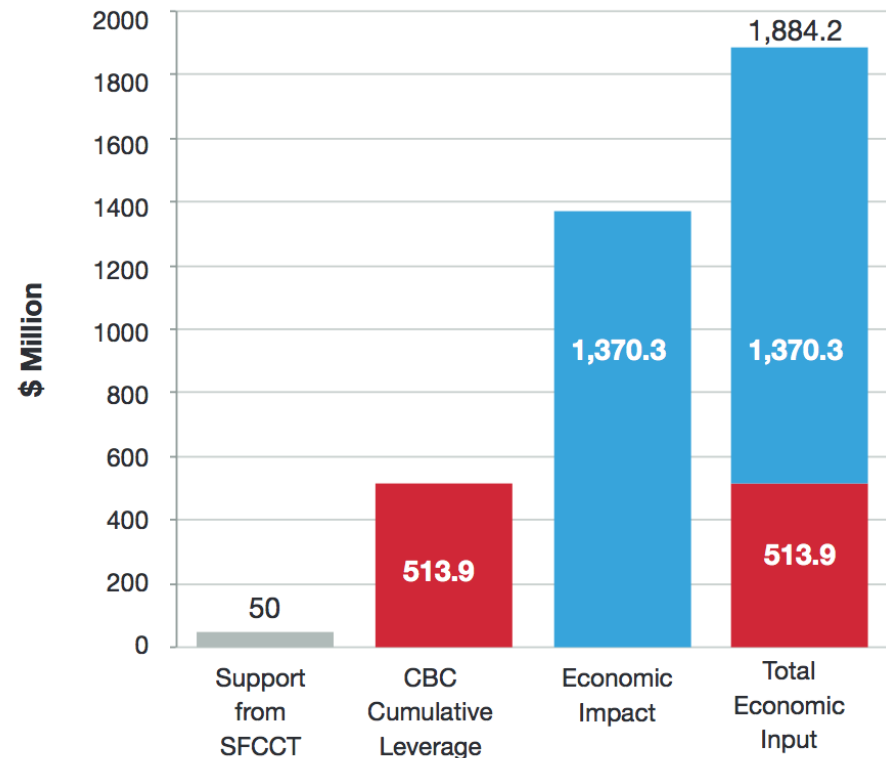




CBC Phase 1 Impact

Economic Impact on Chicago

From 2006 to 2016, the Searle Funds at The Chicago Community Trust (SFCCT) awarded \$50 million to the CBC (*right, grey bar*). The CBC used SFCCT funding to support cutting-edge basic biomedical research projects that have gone on to win additional funding from external sources, primarily the NIH. To date, this additional funding totals almost **\$514 million** (*red bar*). Economists have calculated that, in Illinois, **each biomedical research dollar increases business activity by \$2.43**^{2,3}. Using this multiplier, the Economic Impact of the combined SFCCT and NIH research funding is **\$1.370 billion** (*blue bar*). Thus, CBC activities (Cumulative leverage + Economic Impact) have provided a total economic input of over **\$1.8 billion** to the Chicago economy since 2006 (*red/blue bar*).





CBC Moving Forward, Phase 2

Revised Mission (Phase 2) 2017-2021

The mission of the Chicago Biomedical Consortium (CBC) is to stimulate collaboration among scientists at Northwestern University, The University of Chicago, the University of Illinois at Chicago **and others to accelerate discovery that will transform biomedical research and improve the health of humankind.** The CBC will:

- Stimulate research and education that bridge institutional boundaries,
- Enable collaborative and interdisciplinary research that is beyond the range of a single institution,
- **Mentor and develop a strong cadre of biomedical leaders, researchers, and entrepreneurs in Chicago,**
- **Enhance and promote the development of the biomedical ecosystem in Chicago,**
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CBC Moving Forward, Phase 2



CBC Accelerator Network (CBCAN)

The **CBC Accelerator Network (CBCAN)** has been established as a **New Forum** to regularly bring together academic and industry scientists as well as other members of the biotech community to present and discuss ideas for commercialization. **CBCAN** aims to convene **entrepreneurially-minded faculty, postdoctoral fellows and graduate students**, along with **industry experts** and **Technology Transfer Officers**, building a community, encouraging interactions, and educating academic researchers about market realities and the paths to realize their translational and commercial objectives.

2 CBCAN meetings have been held and **CBCAN #3** is scheduled for **October 26, 2017** from **4-7 PM at Prentice Women's Hospital**.

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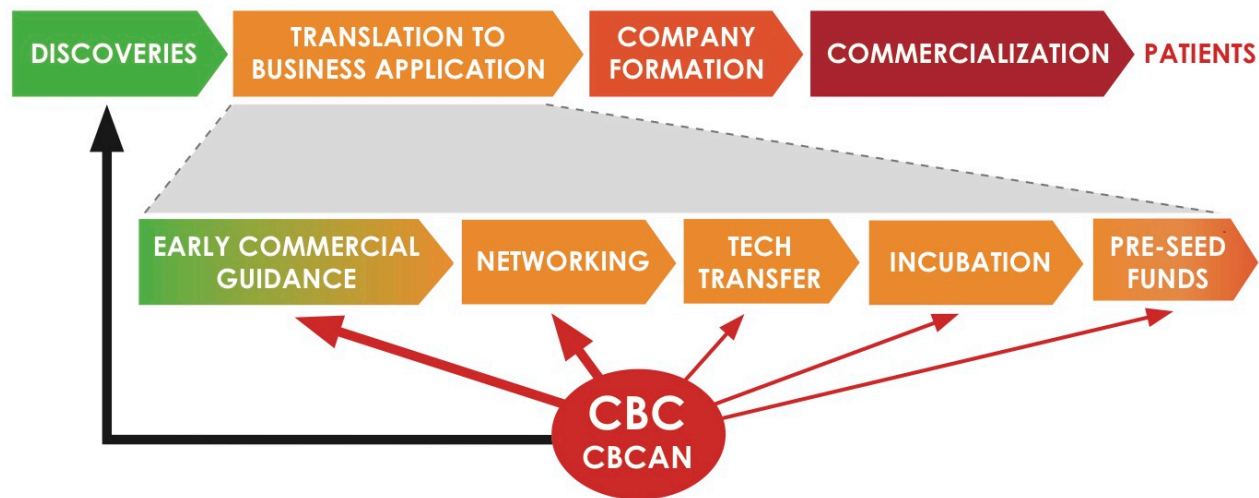


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CBC Moving Forward, Phase 2

CBC Accelerator Network (CBCAN)



CBC Phase 2 will expand its support of the commercialization pipeline. The pipeline from 'Discoveries' to market consists of several stages such as 'Translation to Business Application,' 'Company Formation' and 'Commercialization' (*top*). In turn, 'Translation to Business Application' entails a number of sub-stages, including 'Early Commercial Guidance,' 'Networking,' 'Tech Transfer,' 'Incubation' and 'Pre-Seed Funds'. During Phase 1, the CBC's biggest effort concentrated on 'Discoveries' (*black arrow*) although all sub-stages of 'Translation to Business Application' have also received CBC support (*red arrows*). By establishing CBCAN, CBC Phase 2 will strengthen that support by providing 'Early Commercial Guidance' and facilitating 'Networking' within the Chicago biomedical ecosystem (*thick red arrows*).

CBC Moving Forward, Phase 2



CBC Accelerator Awards

The CBC will launch a new **Accelerator Award Program** to support translational research and provide university researchers with **”early commercial guidance.”** Accelerator Awards will be used to support the initial, and therefore the highest risk, stage of commercially-directed research. The program will encourage interactions between academic researchers and **industry/ pharmaceutical experts** early in the development of projects and provide advice to award recipients in setting and progressing toward commercialization milestones. Award recipients will be mentored by faculty, industry experts, tech transfer officers and CBC personnel. Accelerator awardees will provide project updates at CBCAN meetings.

The initial Accelerator Award RFP is targeted for November, 2017.

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CBC Moving Forward, Phase 2



CBC Accelerator Awards

The program will consist of two parts (A and B):

- **Part A:** Translational research projects will be evaluated by a team of reviewers that will include industry scientists. The application process will include an oral presentation at CBCAN. Full proposals must discuss commercial potential, including milestones and deliverables. Accelerator Part A awards will be for **\$100,000 for one year**.
- **Part B:** Only projects that have substantially met proposed milestones during Part A awards will be invited to apply for **\$150,000 for one additional year**.
- **Applicants must be faculty with research programs at the CBC universities.**
- **Projects involving multi-institutional collaborative teams will be given strong preference, although collaboration will not be required. Collaborations could involve faculty scientists at any Chicago-area university, but all institutions receiving CBC funding must agree to waive indirect cost recovery.**

CBC Moving Forward, Phase 2



CBC Entrepreneurial Fellows

A new **CBC Entrepreneurial Fellows (EF) program** will identify and support a cohort of postdoctoral fellows who are keen to work in the biotech start-up space of Chicago.

- Applications must be **jointly** submitted by a CBC university faculty member and a postdoctoral fellow candidate.
- Projects must be related to **biomedicine**, preferably pertaining to development of therapeutics or diagnostics and must have clear translational milestones.
- The faculty mentor must agree that the fellow will have significant time available for **professional development** activities.
- Applications will be evaluated by the EF Review Board, composed of Tech Transfer Officers, industry experts, and faculty and consider both **potential commercial value** and **scientific merit**.
- Fellowship awards will be for **12 months**. If proposed milestones have been met and reasonable next steps are proposed, Fellows may apply for a **second year of funding**.
- EF Awards will be for **\$90,000** per year, to cover a salary of \$65,000 and benefits.

CBC Moving Forward, Phase 2



CBC Catalyst Award

The successful **CBC Catalyst Award Program continues in Phase 2**, supporting the essential inputs into the commercialization pipeline by funding innovative collaborative research. **Catalyst Round 24, Fall 2017, in addition to supporting basic biomedical research also considers projects with translational potential.**

- Awards will provide up to **\$250,000** for **up to two years**. Awards will be made based on scientific merit. Projects should address important areas of basic biological/biomedical or translational research that are risky, innovative and potentially transformative.
- **Applicants must be tenured or tenure-track faculty with research programs at the CBC universities who will initiate a new collaboration.**
- Research proposals must have Co-Principal Investigators from **at least two of the three CBC universities.**