



CHICAGO
BIOMEDICAL
CONSORTIUM

THE UNIVERSITY OF CHICAGO
UNIVERSITY OF ILLINOIS AT CHICAGO
NORTHWESTERN UNIVERSITY

CBC Accelerator Network (CBCAN)

presents

CBC Accelerator Awardees' Presentations:
Progress to Date & Pitch for Year 2 Funding

Tuesday, December 10, 2019
4:00 - 7:00 PM

Discovery Partners Institute
200 South Wacker Drive
Fourth Floor
Chicago, IL 60606





Part I

PROGRAM

4th Floor, Classroom A

4:00 PM **Participants' Self-Introduction**

4:15 PM **Introductory Remarks**

Rick Morimoto

Interim Executive Director, CBC

Nancy Tyrrell

Associate Director for Translational Activities, CBC

Presentations

Presentations will be for 20 minutes; and 10 minutes for Q & A.

4:20 PM **Terry Vanden Hoek, MD (UIC)**
*Novel PHLPP Peptide for Asystole / PEA
Resuscitation*

4:55 PM **Gregory Thatcher, PhD (UIC)**
*Novel BET Inhibitor for Breast Cancer Combination
Therapy*

Part II

NETWORKING

4th Floor, Discovery Room

5:30 PM **Networking Reception**

7:00 PM **Adjourn**

CBC Accelerator Awards' Abstracts

Terry Vanden Hoek, MD (UIC)

Novel PHLPP Peptide for Asystole / PEA Resuscitation

Cardiac arrest affects 600,000 people annually in the United States and is a leading cause of death. No drugs exist that improve survival from this lethal disease. While cooling a few degrees improves survival, it is difficult to implement clinically during cardiopulmonary resuscitation (CPR) and when started after CPR protect against ventricular fibrillation (VF) cardiac arrest (with expected 50% survival), but not against the most lethal forms of cardiac arrest, pulseless electrical activity (PEA) and asystole (with about 10% survival). We developed a novel peptide that reproduces critical mechanisms of CPR cooling protection without physically cooling. It significantly increases survival in pigs with VF cardiac arrest. We propose to further examine the benefit of this peptide using mouse asystole and pig PEA models. We hypothesize that this peptide administered intra-venously during CPR improves neurologically intact survival and will extend protective effects of cooling to the majority of cardiac arrest patients.

Gregory Thatcher, PhD (UIC)

Novel BET Inhibitor for Breast Cancer Combination Therapy

Deregulation of epigenetic processes is one of the hallmarks of cancer. Bromodomain-containing proteins are key epigenetic regulators: among 61 bromodomains, the bromodomain and extraterminal (BET) family has been targeted by inhibitors in cancer clinical trials. We have designed a novel, potent, selective BET inhibitor, YF-2-23, with superiority to many inhibitors in clinical trials, when tested in breast cancer cell lines. Although YF-2-23 may have use in multiple cancers, a persuasive argument exists for pursuing combination therapy in drug-resistant ER+ breast cancer, with a novel, proprietary, orally bioavailable selective estrogen receptor degrader (SERD). We propose to obtain crucial preclinical efficacy data on the YF-2-23 combination in xenograft models of metastatic ER+ breast cancer, resistant to endocrine therapy and CDK4/6 inhibitors.



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 Leadership

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