



Advancing CoM Research: The Next 5 Years

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Research Mission

- Our research mission is critical
 - -Core competency of CoM, UC, and UC Health
 - Identity, prestige and success for AHC & UC
- We face difficult financial times
 - Federal fiscal cliffs and other geographic features
 - Decreasing state support
 - CoM can maintain strong programs, but limited \$\$ to launch new or support underproductive programs
- We must set clear priorities to advance research in a tough fiscal environment.











We Found the Trail ...

"May your trails be crooked, winding, lonesome, dangerous, leading to the most amazing view. May your mountains rise into and above the clouds."

- Edward Abbey, American author/conservationist





CoM Research Facts

Category	FY 10	FY 11	FY 12
Clinical trials \$	3.8M	8.0M	7.2M
COM research \$\$	169M*	133M	120M!!
NIH (non-ARRA) \$	97M	89M	91M
Grant applications	711	630	626

^{*}includes one-time ARRA Funding; 'baseline ~130M

Leading funded areas:

Neuroscience

Environmental sciences

Diabetes/Obesity

Cancer

ID/Immunology

Military/trauma

Cardiovascular

Research training programs:

Biomedical Sciences Flex

Cancer & Cell Biology

Epidemiology/Biostatistics

Environmental Genetics & Toxicology

Industrial Hygiene

Immunobiology

*Molecular & Developmental Biology

Molecular Genetics, Biochemistry, & Microbiology

Molecular, Cellular, & Biochemical Physiology

*Neuroscience

Pathobiology & Molecular Medicine

Physician Scientist Training Program

*Systems Biology & Physiology

^{*}picked for enhancement





Supporting & Advancing Research: Accomplishments in 2012

Culture change: raising the priority of research

- \$1M Discovery Acceleration Initiative
 - 11 Provost pilot grants (+ 4 more with UCNI)
 - 3/6 Dean bridge awards: a 1 to 35 'leverage'
 - VP JIT program provided \$140K (60%+ awarded)
 - CoM Study section reviewed 10 grants
- Established Biomedical Technology Advancement Council (BTAC)
- Engaged CoM faculty in processes
 - Initiated basic science faculty groups
 - Initiated clinical research faculty and staff groups
 - Review of basic science structure by faculty





Supporting & Advancing Research: Accomplishments in 2012

Improved research infrastructure

- Launched biomedical informatics and IT improvements
- Reviewed cores: next step create new management structure
- Developed all Ohio (OSU, CWRU, UC) shared IRB MOU (CCTST)
- Supported 900 researchers through CCTST Research Central
- Established community leadership institute (CCTST)
- Launched chair searches: Cancer Biology, Biomedical informatics

Strengthened training pipelines

- Strong progress toward undergraduate pre-med degree in CoM
- Reorganized MSTP and good score!
- 100% of Grad programs completed OBR review
 - 9/12 in upper 25%
 - CoM programs were 3 of the 6 picked for 'enhancement' at UC





Supporting & Advancing Research: Strategic Plan for Research

 Current economic challenges demand careful planning and strategic decision making to prioritize research investments.

We must have a plan!

- In 2008 the CoM & UC Medical Center completed a strategic plan.
- The research components of the 2008 plan were unevenly addressed.
- The Research Cabinet reviewed this plan and:
 - 1) assessed the current research environment
 - 2) set CoM research strategies and priorities
 - 3) established next steps





Research Vision and Mission

Vision:

Through collaboration and innovation, we will be the leader in improving the health of our local and global community.

Mission:

Our mission is to improve health for all through:

- Personalized care embracing best clinical practices
- Innovative interdisciplinary research promoting team science
- Premier clinical and scientific training
- Creative community partnerships





Research Core Values

We must strive to manage to our values:

- Excellence. Our research programs must maintain the highest level of innovation and quality.
- Passion. Our investigators must approach research problems with enthusiasm.
- <u>Integrity</u>. Our research programs and administration must be transparent and maintain the highest level of personal and professional integrity and ethics.
- Collegiality & Professionalism. Research faculty members must be generous, collaborative, collegial team players committed to the success of other faculty and trainees.
- <u>Stewardship and Accountability</u>. We must recognize that research sustainability requires good stewardship of resources and individual accountability at all levels.





Environmental Assessment

Strengths, e.g.,

- several truly world-class programs
- some unique and good cores
- effective (albeit underutilized) CTSA & VA Clinical Research Unit

Weaknesses, e.g., insufficient attention to:

- building depth
- infrastructure and aging cores
- consistent programmatic planning
- investigator development
- sustainable models, e.g. funding diversity

Opportunities:

collaboration with partners

Threats:

the economy





Research Strategies

Strategic theme: build depth – in expertise, excellence, personnel, funding and collaboration

Strategies:

- Focus on translational science by developing three-mission Centers of Excellence & Institutes in areas of strength.
 - CoE thematic integrated 3-mission programs
 - Institute collection of linked CoE's
 - Recruit clinician scientists
- 2. Enhance critical infrastructure.
- 3. Develop new funding streams.
- 4. Initiate effective and aggressive faculty development.
- Increase collaborations with Cincinnati Children's and other partners (e.g., VA, other colleges).





Principles for Prioritization for Research Investment

- 1. Invest in areas that are strong, dominant/unique or critical to future success.
- 2. Invest in developing new funding streams.
- 3. Invest in investigator development.
- 4. Invest in collaborative projects with Cincinnati Children's and other partners.

We have limited resources so we must make strategic investments. We cannot invest in everything.





Programmatic Areas of High Priority (not in order)

Research Area	Major strength	Dominant Unique	Critical
Cerebrovascular disease	X	Offique	
Bipolar disorders	X	Х	
Obesity	Х	X	
Diabetes	Х		
Environmental Science	Х	X	
Lipid biology	X		
Addictive disorders	X	X	
Trauma/Military Medicine	X	X	
Basic cardiovascular	X		
CER/outcome/health services			X
research			
Computational medicine & biology			X
Biomedical informatics			X
Several areas of cancer	X	X	
Stress disorders		X	
Immunology/ID		X	
Structural biology		X	





Infrastructure Priorities

- Highest
 - CCTST
 - Gene sequencing & micorarray core
- High
 - UCP Clinical Trials operations & support
 - ES Cell Transgenic Mouse Core
 - Proteomics Core
 - MDI animal behavioral lab
 - Center for Imaging Research
 - VA CRU: increase awareness
 - Live Microscopy Core: integrate multiple components





Clinical Research Unit (CRU) Cincinnati VA Medical Center

- A joint venture of UC and the VA started in 2004
 - a component of the UC/Cincinnati Children's CTSA
 - 3,000 square feet of research space including exam rooms, clinical lab and a research pharmacy
 - 4 experienced research nurses/RAs with experience in a broad range of studies designs and regulatory issues
 - NIH, VA, foundation and industry sponsored studies
 - available to all campus investigators and all groups of research subjects





Next Steps: Implementation

Implementation will be both bottom-up and top-down to maximize input and effectiveness:

- 1. Obtain 1-, 3- and 5-year goals linked to investment requests from area leaders.
- 2. Research Cabinet will develop plans for new areas that lack leadership.
- 3. CCTST will develop a task force to integrate research programming across the CoM, UC Health, Cincinnati Children's and other partners.
- 4. Proposals will be reviewed by the Cabinet and sent to the Dean and UC Health CEO for final approval, prioritization and financing.





Any Group Can Become a Priority Area

1. Identify a leader who:

Has national/international reputation, i.e., widely cited

Has a history of sustained, meaningful funding

Has demonstrated the ability to organize a critical mass

Has demonstrated the ability to mentor and retain mentees

2. Demonstrate the existence of a critical mass of investigators

Established, significant funding

Track record of collaboration

- 3. Demonstrate clear support and financial commitment from division/department.
- 4. Develop a specific plan of how to move the program toward a Center of Excellence integration.
- 5. Obtain approval from Research Cabinet and then Dean





We Have to Start Somewhere

"Perseverance is not a long race; it is many short races one after another."

- Walter Elliott, American Priest





2013 Goals

- Goal 1: Implement strategic plan
- Goal 2: Finalize undergraduate pre-med program structure
- Goal 3: Finalize basic science structure
- 2013 Cross-cutting Priorities
 - Clinician scientist recruitment (add trialists)
 - Joint recruitment with Cincinnati Children's
 - Integration of infrastructure with Cincinnati Children's





2013 Goals

Goal 1: Implement strategic plan

- Communicate plan to College
- Establish strategic plan fund of at least \$5M
- RFP: Leaders of priority areas to provide needs assessment/plan
- RFP: Leaders of key infrastructure to provide needs assessment/plan
- Identify and hire CER/Outcomes 'champion'
- Build BMI research infrastructure
- Develop expectations re: research for faculty development
- Implement pipeline program
- Build EPIC research integration
- Identify best structure for CTO
- Increase the number of clinician scientists as part of clinical growth





2013 Goals

Goal 2: Finalize undergraduate pre-med program structure

- Minors to begin in fall
- Major by fall of 2014

Goal 3: Finalize basic science structure

- Recruit cancer biology chair
- Identify possible units outside cancer
- Develop plans for recruiting new faculty
- Define the size of faculty we can afford





Progress ...

- We are making steady progress.
- As a team, we will push through our fiscal challenges and continue to grow.
- We will focus on building depth to strengthen our long-term success.
- There will be challenges and set backs, but UC CoM has been here a long time ... and will be here a long time from now.
- Let's make sure it's a place we want to work.







"To improve our teamwork, only three chutes will open."





A Few Thanks

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Questions?