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## Pilot Project Funding Opportunities

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# **Pilot Project Funding Opportunities**

**September 26, 2013**

**Nate Hafer, PhD  
Director of Operations  
UMCCTS**



# **Pilot & Collaborative Clinical & Translational Studies**

## **Programs**

- Next Hundred Million Pilot Projects (NHMPP)
- K Scholars Program
- Pilot Project Program (PPP)
- Life Sciences Moment Fund (LSMF)
- Community Engagement Pilots
- Small Conference Grants





# UMCCTS-MassBiologics Collaboration

## The Next Hundred Million Pilot Projects

The Following Division Leaders (all are UMMS faculty) should serve as initial points of contact for expertise at MassBiologics:

- For discovery research, Dr. Bill Thomas, [william.thomas@umassmed.edu](mailto:william.thomas@umassmed.edu)
- For in vivo pre-clinical research, Dr. Keith Reimann, [keith.reimann@umassmed.edu](mailto:keith.reimann@umassmed.edu)
- For clinical research, Dr. Deb Molrine, [deborah.molrine@umassmed.edu](mailto:deborah.molrine@umassmed.edu)
- For process development and manufacturing research, Dr. Sadettin Ozturk , [sadettin.ozturk@umassmed.edu](mailto:sadettin.ozturk@umassmed.edu)
- For quality assessment, regulatory or business process proposals, Dr. Mark Leney, [mark.leney@umassmed.edu](mailto:mark.leney@umassmed.edu)



# **UMCCTS-MassBiologics Collaboration**

## **The Next Hundred Million Pilot Projects**

**2012 Solicitation**

**20 letters of intent**  
**8 full proposals**  
**4 funded projects**



# 2013 NHMPP Recipients

UMMS Collaborator(s)	MBL Collaborator	Project Title
Jack Leonard, PhD Dale Greiner, PhD Karl Simin, PhD Peter Newberger, MD	Bill Thomas, PhD	Production and validation of a membrane-permeant DKK3b anti-cancer therapeutic
Brian Pierce, PhD Zhiping Weng, PhD	Greg Babcock, PhD	Structure-based design of an HCV vaccine and broadly neutralizing antibody
Chris Sassetti, PhD	Colby Souders, PhD	Therapeutic monoclonal antibodies to prevent <i>Mycobacterium tuberculosis</i> infection
Celia Schiffer, PhD	Leila Sevigny, PhD	Structure-based drug design to provide passive protection from Lyme Disease induced by a broad range of <i>Borrelia</i>



# The Next Hundred Million Pilot Projects

## Tentative Timeline:

Request for Letters of Intent	Monday, September 9, 2013
Letters of Intent Due	Monday, October 14, 2013
LOI Finalists Notified	Friday, November 1, 2013
Full Proposals Due	Tuesday, November 26, 2013
Full Proposal Review	January 2014
Project Start Date	Monday, February 3, 2014





## **K Scholars Program**

Designed to train investigators who will make a career of innovative, hypothesis-driven clinical and translational research.

Training program combines coursework, seminars, and mentored research



## K Scholars Program

### Tentative Timeline:

Request for Letters of Intent	Thursday, September 26, 2013
Letters of Intent Due	Friday, November 1, 2013
LOI Finalists Notified	Friday, November 15, 2013
Full Proposals Due	Monday, December 16, 2013
Full Proposal Review	January 2014
Project Start Date	Friday, January 31, 2014



# Pilot Project Program

## Specific Aims:

1. Stimulate the development of new clinical and translational inter- and multi-disciplinary teams
2. Provide novel support mechanisms for junior investigators
3. Increase the emphasis on pilot funding for community-based research
4. Develop new methodologies to leverage institutional strengths and new initiatives
5. Pursue high-risk, high reward studies
6. Support projects utilizing the unique core facilities at the medical school and throughout the University
7. Encourage collaboration across the five UMass campuses



## Pilot Project Program

Individual Proposals      \$75,000 max for 1 year  
                                         \$125,000 max for 2 years

Projects span the translational spectrum, T1 – T4+

### 2 Stages

Letter of Intent (2 pages)

Full Proposal (Abbreviated NIH-style 10 pages)



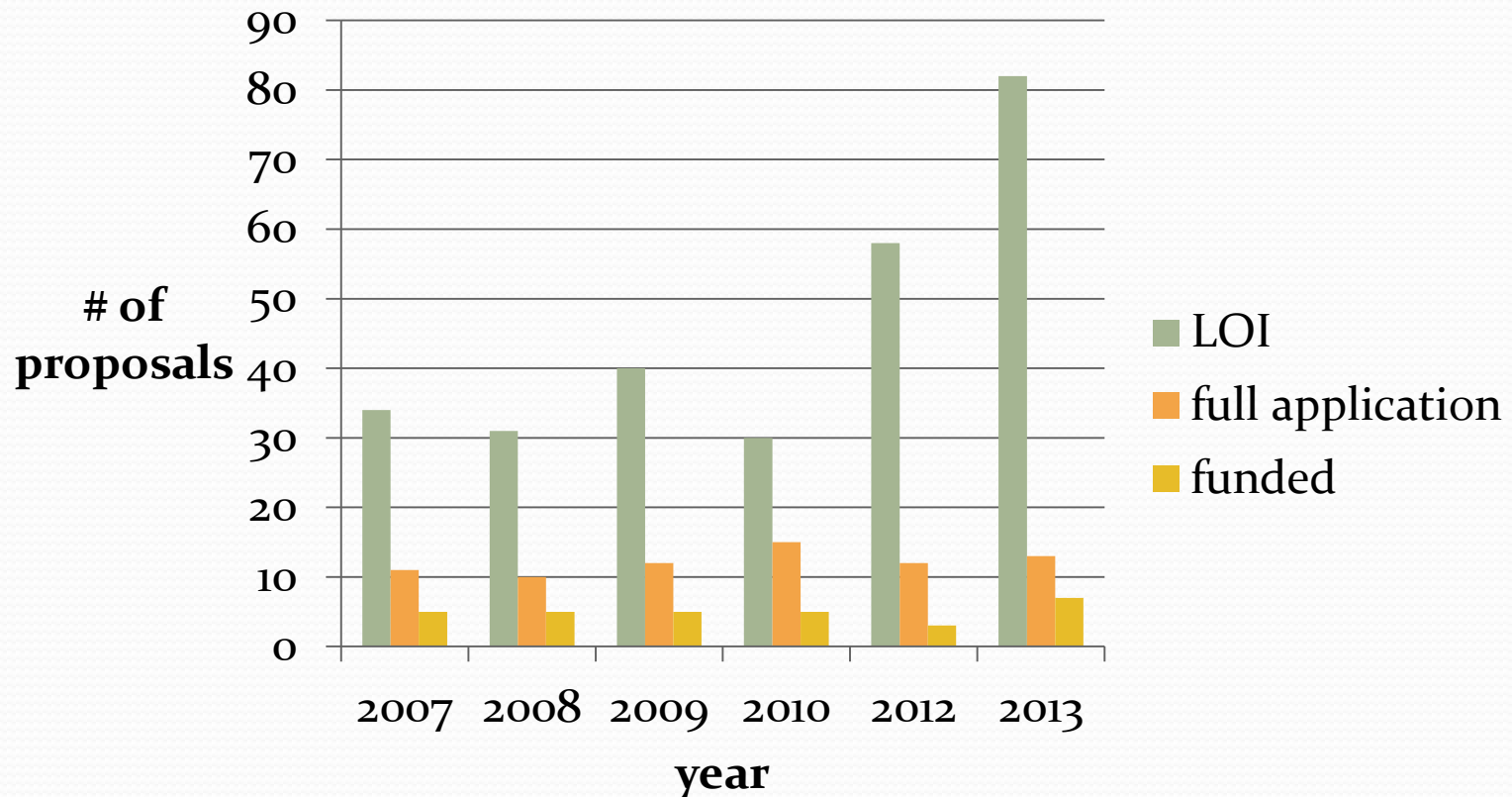
## NEW THIS YEAR

# CCTS-Office of Global Health Collaboration

- Catalyze development of translational research projects with firm scientific basis for clinical practice and public health policy in global settings.
- Projects should be innovative, interdisciplinary, capitalize on UMMS programmatic strengths, have potential for future growth and directly relevant to global health.
- Encourage faculty PIs from all UMMS departments and programs
- Up to 3 awards of up to \$35k each for 1 year.



# Pilot Project Program – success rate





# 2013 Pilot Program Project Recipients

UMMS Collaborator(s)/Dept	UMass Collaborator/Dept	Project Title
<b>Jeffrey Bailey, MD, PhD</b> Department of Medicine <b>Ann Moormann, PhD, MPH</b> Department of Pediatrics		Endemic Burkitt Lymphoma transcriptome and genome profiles associated with clinical presentation, treatment response, relapse, and survival
<b>Michael Green, MD, PhD</b> Program in Gene Function and Expression	<b>Sanchita Bhatnagar, PhD</b> Program in Gene Function and Expression	Reactivation of the inactive X-linked MECP2 gene as a therapeutic strategy in Rett Syndrome
<b>Andrei Korostelev, PhD</b> Biochemistry and Molecular Pharmacology		Novel therapeutic routes against premature termination diseases
<b>Wenjun Li, PhD</b> Department of Medicine	<b>Robert Goldberg, PhD</b> Department of QHS <b>Joel Gore, MD</b> Department of Medicine	Health care reform and accessibility, quality, and outcomes of AMI-related care



# 2013 Pilot Program Project Recipients

UMMS Collaborator(s)/Dept	UMass Collaborator/Dept	Project Title
<b>Joel Richter, PhD</b> Program in Molecular Medicine <b>Jean Frazier, MD</b> Department of Psychiatry	<b>Jean King, PhD</b> Department of Psychiatry <b>Futai Kensuke, PhD</b> Department of Psychiatry	Amelioration of the Fragile X Syndrome by targeting the translational apparatus
<b>David McManus, MD</b> Department of Medicine <b>Jane Saczynski, PhD</b> Department of Medicine	<b>Kiefe, Goldberg, Keaney, Floyd</b>	Cognitive and psychosocial characteristics in patients undergoing treatment for atrial fibrillation: relation to 6-month clinical outcomes
<b>Molly Waring, PhD</b> Department of QHS	<b>Moore Simas, Pagoto, Olendzki</b>	Impulsivity and weight gain during pregnancy: the roles of excess energy intake, food reward sensitivity, and the food environment





## Pilot Project Program (PPP)

### Tentative Timeline:

Request for Letters of Intent	Monday, November 18, 2013
Letters of Intent Due	Friday, December 20, 2013
LOI Finalists Notified	Friday, January 10, 2014
Full Proposals Due	Friday, February 14, 2014
Full Proposal Finalists Notified	Friday, March 7, 2014
Project Start Date	Tuesday, April 1, 2014



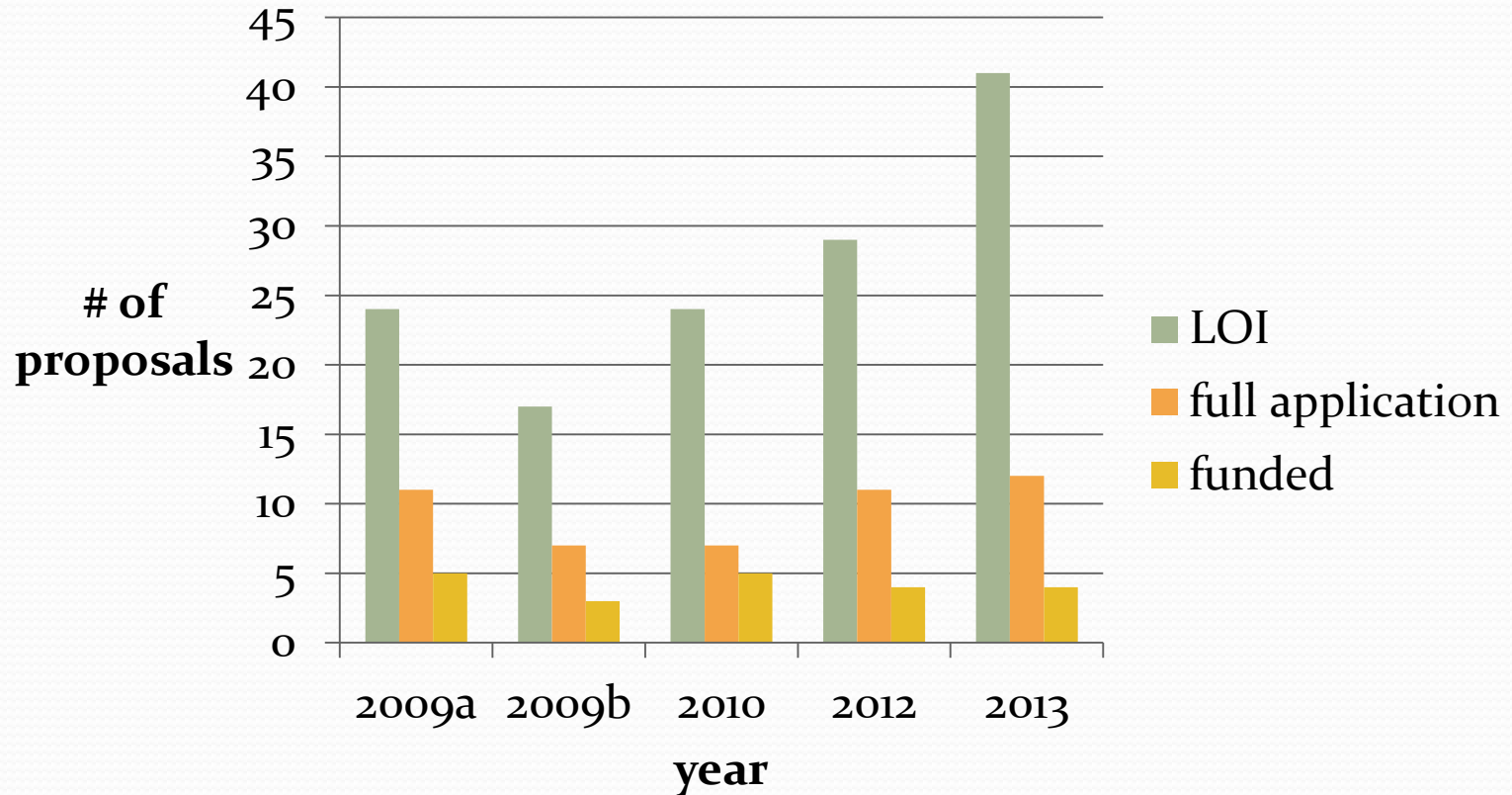
# UMass Life Sciences Moment Fund

**Funds dedicated to multi-investigator pilot projects identified as key strategy to incentivize collaborative partnerships across campuses.**

- Inter-campus collaborative projects, involving at least one faculty member from the Worcester campus & one faculty member from another UMass campus.
- Collaborative projects must be oriented towards clinical and translational research.
- Funding levels and application review process same as PPP.



## LSMF – success rate





# 2012 Life Sciences Moment Fund Recipients

UMMS Collaborator(s)/Dept	UMass Collaborator/Dept	Project Title
<b>Doug Golenbock, MD</b> Department of Medicine	<b>Garth Hall, PhD</b> Department of Biological Science, Lowell Campus	The role of Tau in inflammasome activation in Alzheimer's disease
<b>Phil Gona, PhD</b> Department of QHS	<b>Andrea Foulkes, ScD</b> Department of Biostatistics Amherst campus	Genetic and genomic determinants of hypertension in Black and Caucasian South Africans- a pilot-study nested in the African-PREDICT study
<b>Tony Ip, PhD</b> Program in Molecular Medicine	<b>Michele Markstein, PhD</b> Department of Biology, Amherst campus	Establishment of Rab11-regulated inflammation as therapeutic targets in cancer progression
<b>Paul Kaufman, PhD</b> Program in Molecular Medicine	<b>Daniel Schmidt, PhD</b> Department of Plastics Engineering, Lowell campus	Active plastics as a novel strategy to combat fungal infections



# Life Sciences Moment Fund (LSMF)

## Tentative Timeline:

Request for Letters of Intent	Tuesday, February 18, 2014
Letters of Intent Due	Friday, March 14, 2014
LOI Finalists Notified	Friday, April 4, 2014
Full Proposals Due	Friday, May 2, 2014
Full Proposal Finalists Notified	Monday, June 2, 2014
Project Start Date	Monday, July 1, 2014



# Community Engagement Pilot Awards

**Funds pilot projects in the area of community translational research**

- Intend to fund up to three \$12,000 awards
- More details will be available in early 2014



# Small Conference Grant Awards

**Designed to create new, multidisciplinary teams to address a pressing health need**

- Awards of up to \$1000 can be requested
- Applications are accepted on a rolling basis
- Decisions will be made 2-3 weeks post submission
- We are looking for concrete deliverables (collaborative grants, centers, programs) rather than exploration
- Key question- what added value will our limited funding provide?
- Complete details available on the UMCCTS website



**Questions?**



# Neuroendocrine & neuroimaging endophenotypes in perinatal depression



Kristina M. Deligiannidis, M.D.

Assistant Professor of Psychiatry and Obstetrics & Gynecology

University of Massachusetts Medical School

Director, Depression Specialty Clinic

Psychiatrist, Women's Mental Health Program

UMass Memorial Medical Center

Depression is the leading cause of disease burden and years lost to disability for women in their childbearing years.

Postpartum depression affects 1 in 8 women. Many women start to develop symptoms in pregnancy.

Our lab investigates the interaction of mood/anxiety, neuroactive steroids, the main inhibitory neurotransmitter of the brain,  $\gamma$ -aminobutyric acid (GABA) and the effect on neurocircuitry in the female brain.

Our research goals:

- understand the pathophysiology of perinatal depression
- identify biological markers & endophenotypes
- develop early identification & treatment

# NIH/UMMS CTSA CCTS 2010 PPP

Neuroendocrine and neurochemical biosignature in late pregnancy and its association with the development of PPD (“stress in pregnancy study”)

- quantify basal HPA axis function as measured by plasma cortisol, deoxycorticosterone and GABA in late pregnancy and the postpartum in women at low or high risk for developing PPD
- quantify dynamic HPA functioning (cortisol stress reactivity) with an acute psychosocial stress test (TSST) in 3<sup>rd</sup> trimester women and evaluate its association with the development of PPD
- exploratory aims (cord blood (neuroendocrine); DNA)

# IMPACT CCTS PPP

CCTS PPP  
2011-2013

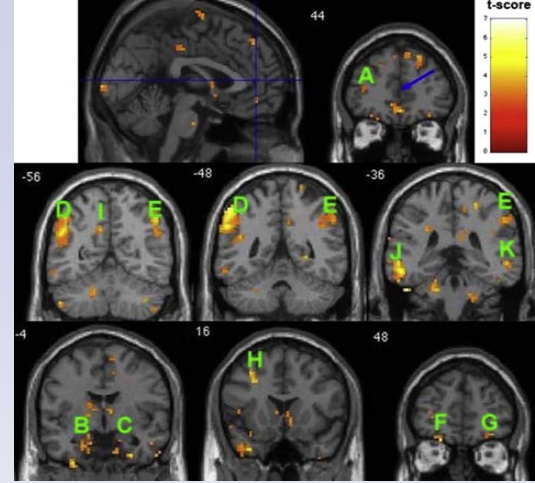
Published  
Abstracts: 6

Manuscripts  
6 published  
3 in prep

Grant  
funding \$1M

# NIH K23 (2013-2018)

- investigate potential biological markers in pregnant women at high risk of developing PPD
- train in reproductive and behavioral endocrinology research design (NIMH, MGH)
- train in neuroimaging to study interactions of the reproductive endocrine system on neural circuitry in depression (UMMS, Harvard)
- acquire training in biostatistics and scientific writing (UMMS GSBS)



**International: Perinatal  
Psychiatry Genetics  
Consortium**

**National: NIMH; SOBP; NNDC;  
VA reproductive health  
research group**

**Commonwealth: Harvard;  
Tufts Veterinary; Assumption  
College**

**UMass Amherst:  
Stress Research  
Cluster; Psychology**

**UMMS:  
Psychiatry;  
Ob-Gyn;  
Proteomics;  
QHS; AMRIC;  
Biomedical  
Informatics**

**Departmental Support; WFBR;  
CCTS PPP**

THANK YOU FOR YOUR ATTENTION!

