

# 6<sup>th</sup> Annual FUTURE in Biomedicine Symposium

Friday, August 1, 2014

Beisner Auditorium, Bowen Science Building  
Roy J. and Lucille A. Carver College of Medicine, University of Iowa

**1:00 pm** **Introductory Remarks** – Madeline A. Shea, Ph.D., Director

**1:15 pm** **Ryan Bezy, Ph.D.** **Mt. Mercy, Cedar Rapids**  
*Characterization of YedR, a Novel Cell Division Protein in Escherichia coli*  
UI Host: David Weiss, Microbiology

**1:35 pm** **Shawn Ellerbroek, Ph.D.** **Wartburg College, Waverly**  
*Coupling Actin to Cell Adhesions*  
UI Host: Kris DeMali, Biochemistry

**1:55 pm** **BREAK**

**2:05 pm** **Randy Mercer, Ph.D.** **Hawkeye Community College, Waterloo**  
Better Futures for Iowans Fellow  
*Variability in Wolbachia Infections of Mosquitoes: a Key to Invasion Success?*  
UI Host: Wendy Maury, Microbiology

**2:25 pm** **Stephanie Toering Peters, Ph.D.** **Wartburg College, Waverly**  
*Loss of Dgk Impairs Synapse Function and Structure*  
UI Host: Andy Frank, Anatomy and Cell Biology

**2:45 pm** **Poster Presentations by Undergraduate Researchers and Alumni.**  
**Refreshments will be served.**

**3:20 pm** **Adam Moser, Ph.D.** **Loras College, Dubuque**  
*Simulating Phosphoproteins using Coarse Grain Models*  
UI Host: Adrian Elcock, Biochemistry

**3:40 pm** **Jerry Honts, Ph.D.** **Drake University, Des Moines**  
*Tetrahymena Tcb2 Protein: a Novel Calcium-binding Protein that Forms a Contractile Assembly*  
UI Host: Madeline Shea, Biochemistry

**4:00 pm** **BREAK**

**4:10 pm** **Michael Leonardo, Ph.D.** **Coe College, Cedar Rapids**  
*Control of Vibrio parahaemolyticus Biofilm Formation by Intra- and Interspecies Communication*  
UI Host: Linda McCarter, Microbiology

**4:30 pm** **Ugur Akgun, Ph.D.** **Coe College, Cedar Rapids**  
*Proton Imaging with a High Density Scintillating Glass Calorimeter*  
UI Host: Dongxu Wang, Radiation Oncology

**4:50 pm** **Closing Remarks** - Madeline A. Shea, Ph.D., Director

## Poster Presentations by Undergraduate Researchers – Class of 2014

### Coe - Biology

**Chas Messer**, Michael Leonardo, Ph.D. (2014 Fellow) and  
Linda McCarter, Ph.D. (UI Microbiology)

*Mixed Strain Biofilms: Competition and Cooperation between Vibrio and Shewanella Strains*

### Coe - Physics

**Amy Dong, David Pritchett**, Ugur Akgun, Ph.D. (2014 Fellow) and  
Dongxu Wang, Ph.D. (UI Radiation Oncology)

*Simulating A Glass Proton Imaging Detector*

### Loras - Chemistry

**Alexis Hanson, Jason Derby**, Adam Moser, Ph.D. (2014 Fellow) and  
Adrian Elcock, Ph.D. (UI Biochemistry)

*Developing Force Fields for Phosphoprotein Simulations*

### Mount Mercy - Biology

**David Stanek**, Ryan Bezy, Ph.D. (2014 Senior Fellow) and  
David Weiss, Ph.D. (UI Microbiology)

*A Genetic Analysis of the Role of yedR in Escherichia coli Cell Division*

### Wartburg - Biology

**Jessa Bidwell**, Stephanie Toering Peters, Ph.D. (2014 Senior Fellow) and  
Andy Frank, Ph.D. (UI Anatomy and Cell Biology)

*The Roles of Diacylglycerol Kinase in Synapse Development and Function*



FUTURE in Biomedicine Program <http://www.medicine.uiowa.edu/Future>

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