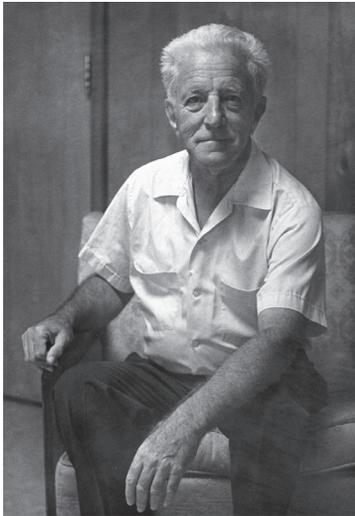


# About the Brother Lucian Blersch Symposium

Organized by the School of Natural Sciences and the Kozmetsky Center of Excellence in Global Finance at St. Edward's University, the event is free and open to the public. This symposium honors Brother Lucian Blersch, CSC, a longtime professor of Engineering at St. Edward's who died in 1986 and in whose name a professorship in the School of Natural Sciences was endowed by a gift from J.B.N. Morris '48, '52 and his family.



## PAST SYMPOSIA

- |      |  |
|------|--|
| 2012 | Global Health & Infectious Disease:<br>Pathogenic Proteins |
| 2011 | Global Health & Infectious Disease:<br>Tuberculosis        |
| 2010 | Global Health & Infectious Disease:<br>HIV/AIDS            |

Learn more at [www.stedwards.edu/lucian](http://www.stedwards.edu/lucian)

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ST. EDWARD'S  
UNIVERSITY

GLOBAL  
HEALTH &  
INFECTIOUS  
DISEASE  
SYMPOSIUM

STRESS AND  
INFLAMMATION

A joint event brought to you by the  
Brother Lucian Blersch Endowment

**10.18.2013**

1:00 p.m. | John Brooks Williams  
Natural Sciences Center—South  
Carter Auditorium  
St. Edward's University

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**EAMONN F. HEALY, PhD**  
Department of Chemistry  
St. Edward's University

**RANDAL J. KAUFMAN, PhD**  
Director of the Degenerative Disease  
Research Program at the Sanford-Burnham  
Medical Research Institute

**MASSIMO GADINA, PhD**  
Director of the Office of Science and  
Technology at NIAMS, National Institutes  
of Health

# GLOBAL HEALTH & INFECTIOUS DISEASE

## STRESS AND INFLAMMATION

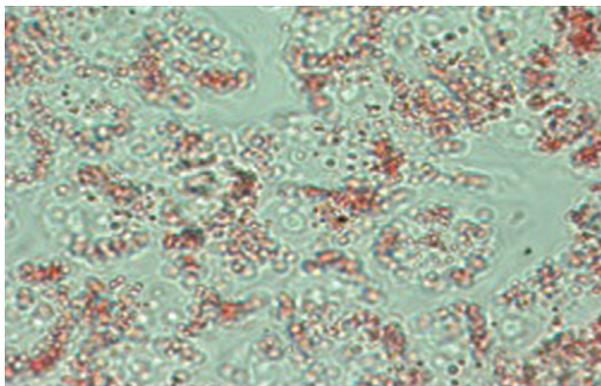
Chronic inflammation has been implicated in a range of diverse diseases including, but not limited to, cancer, diabetes, Parkinson's disease, heart disease, stroke and Alzheimer's disease. While inflammation is a necessary component of a healthy person's immune response to trauma or infection, the inflammation normally subsides as an anti-inflammatory response signals the body's return to health. However, when the amount of proinflammatory chemicals fails to subside, the continuing production of immune cells inevitably interferes with the body's healthy tissues. So it is for atherosclerosis, the predominant cause of coronary artery occlusion. Atherosclerosis is characterized by the presence of atheromas or atherosclerotic plaques, which are formed in turn from macrophages produced by the body's inflammatory response, often to a lesion in the arterial wall. Conditions such as obesity and smoking are also associated with an ongoing inflammatory response, and reactive oxygen species have also been implicated in creating what is termed oxidative stress. Identifying the molecular details surrounding this misfiring of the body's innate immune response will help in developing a deeper understanding of a wide range of human diseases, and should aid in the ongoing search for effective therapeutic treatments.

This symposium will look at three facets of the chronic inflammatory condition. Presenters will share their work on the identification of potential targets for the plant extract resveratrol, found in the skin of red grapes, that help explain its cardioprotective properties, followed by novel research on the link between oxidative stress, protein misfolding and cell apoptosis, finishing with a look at potential therapeutic treatments of a variety of immune-mediated diseases.

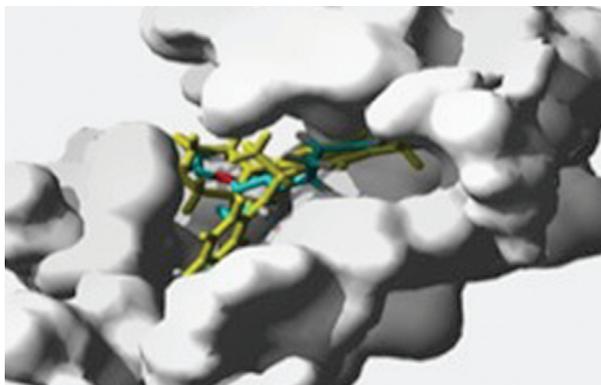
### EVENT SCHEDULE

- |           |   |
|-----------|---|
| 1:15 p.m. | Welcome   |
| 1:25 p.m. | Eamonn F. Healy: "Modeling the Cardioprotective Effects of Resveratrol"                 |
| 1:50 p.m. | Randal J. Kaufman: "The Impact of Oxidative Stress on Protein Misfolding"               |
| 2:40 p.m. | Massimo Gadina: "The Human Kinome as a Target for Autoimmune and Inflammatory Diseases" |

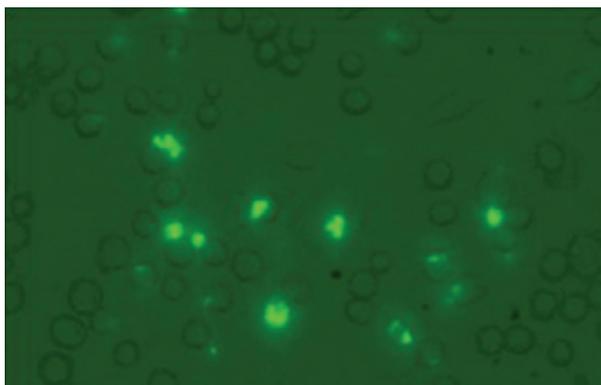
For directions and a map of campus, go to: [stedwards.edu/map](http://stedwards.edu/map).



The ingestion of oxidized low-density lipoproteins (oxLDL) by murine macrophages



A model of the inhibition of PI-3 kinase by resveratrol



The inhibiting effects of resveratrol on the ingestion of fluorescent beads by murine macrophages

### SPEAKERS



**Randal J. Kaufman**, PhD, is professor at the Del E. Webb Center for Neuroscience, Aging and Stem Cell Research, and director of the Degenerative Disease Research Program at the Sanford-Burnham Medical Research Institute in La Jolla, California. The Kaufman lab is focused on understanding the fundamental mechanisms that regulate protein folding and on the cellular responses to the accumulation of unfolded proteins within the endoplasmic reticulum (ER). This involves investigations on the many degenerative diseases, including neurological, metabolic, genetic and inflammatory diseases, that are caused by the accumulation of these misfolded proteins, ultimately leading to cellular dysfunction and death. Kaufman received his PhD in pharmacology from Stanford University and served as Helen Hay Whitney fellow at the Center for Cancer Research at the Massachusetts Institute of Technology. Kaufman was a founding scientist at Genetics Institute Inc. at the University of Michigan in Ann Arbor, where he was also professor of Biological Chemistry and professor of Medicine at the University of Michigan Medical School. Kaufmann was elected an AAAS fellow in 2006.



**Massimo Gadina**, PhD, is currently the director of the Office of Science and Technology at NIAMS, National Institutes of Health. Prior to this appointment, he was senior lecturer at the Division of Infection and Immunity, School of Medicine Dentistry and Biomedical Sciences at The Queen's University of Belfast, Northern Ireland (UK). Gadina's research interests are focused on immune diseases and specifically to the biology of cytokines and the signaling pathways activated by these molecules. He was involved in the studies leading to the development of the JAK inhibitor tofacitinib. His translational work is also focused on autoinflammatory diseases and other inflammatory diseases. Gadina received his doctoral degree in Medicinal Chemistry and technology at the Università di Milano, Italy, and a Docteur degree from the Université de Dijon in Dijon, France.



**Eamonn F. Healy**, PhD, is the Brother Lucian Blersch Professor of Science and Professor of Chemistry at St. Edward's University. The general focus of his research involves the use of molecular modeling to design structure-activity probes for the purpose of elucidating enzymatic activity. Recent targets have included HIV-1 integrase, the c-Kit and src-abl proteins associated with tumor development and certain leukemias, and the metalloproteinases associated with the shedding of chemokine CXCL16. Healy's group has also developed in silico characterizations of the mechanism of action of the Mtb alpha-crystallin protein, and models for the heat shock response of Escherichia coli and for the observed suppression of spinocerebellar ataxia by human alphaB-crystallin. Healy received his doctorate in Chemistry from UT-Austin.