

COLLEGE OF

# Liberal Arts & Sciences



## Faculty Sponsored Research (July 1, 2010-June 30, 2011)

### Africana Studies

Akinwumi Ogundiran

Archaeological Investigations and Survey of the Sacred Arts in Osun Grove, Nigeria

Dumbarton Oaks

### Biology

Kenneth Bost (with Ian Marriott and Vinita Chauhan)

Induced Autoantigen Expression Exacerbates EAE

DHHS/NIH/NINDS

Mark Clemens

Graduate Research Assistantship at Carolinas Medical Center for a project entitled "Development of Bioceramics for the Treatment of Hepatocellular Carcinoma"

Carolinas Medical Center

Sandra Clinton

Iron in Coastal Plain Streams (ICPS) Workshop

Oak Ridge Associated Universities

(with Anne Jefferson, Geography; and Craig Allan, Geography)

Evaluating Restoration Success in the Watershed Context

NC State University (WRRU)

Sandra Clinton\*

Influence of stormwater management structures on ecological function in urban streams

NSF

Sandra Clinton\*

City of Winston-Salem Hydrologic Monitoring Project Assistance by the EAO

City of Winston Salem

Didier Dreau

Role of Aquaporins in Hepatic Stellate Cells

Carolinas medical Center (CMC)

Valery Grdzlishvili (with Ian Marriott)

Role of RIG-like receptors in virally induced CNS inflammation

DHHS/NIH

\* Listed faculty member is a co-PI; the PI is outside CLAS.

# Sponsored Research (Cont.)

Valery Grdzlishvili*	Dry Preservation of Vaccines Using Microwave Processing	North Carolina Biotechnology Center
Yvette Huet	Gender and Sex Steroid Hormone Effects on Developmentally-induced Responses to ALD	Carolinas Medical Center
Yvette Huet*	ADVANCE: Institutional Transformation Award	NSF
Pinku Mukherjee	The Role of IDO in MUC-1 Targeted Immunotherapy	DOD/Army/Medical Res Matl Command
James Oliver	Role of the VBNC (Viable but Non-Culturable) State in Protection Against Environmental Stresses - Potential Impact to Healthcare with Masters Candidate Student - Intern, Joanna Nowakowska	Baxter Healthcare
	Vibrios in the Environment 2010 Conference	USDA
Christine Richardson	Etiology of Translocations in Hematopoietic Cells	DHHS/NIH/NCI
Amy Ringwood (with James Oliver and Sandra Clinton)	Environmental Stress and Microbial Dynamics of Oysters and Marsh Mussels	NC Sea Grant College Program
	Environmental Stress and Microbial Dynamics of Oysters and Marsh Mussels	NC State University
Stanley Schneider	Plant Derived Antioxidants as Inhibitors of Alcohol-Depended Changes in Hepatocellular Carcinoma Progression	Carolinas Medical Center
Inna Sokolova	Do the changes in the thermal regime of the environment lead to a decrease in competitive abilities of endemic Baikal species against potential invaders?	Civilian RD Foudation
Jennifer Warner	Introductory Biotechnology Workshop for High School Teachers	NC Biotechnology Center
(with Tonya Bates)	Microbial Magic Workshop for Middle School Teachers	NC Biotechnology Center
(with Tonya Bates)	Introductory Biotechnology Workshop for High School Teachers	NC Biotechnology Center
<b>Chemistry</b>		
Joanna Krueger	Jasmine King: Protein Stability Studies for Bio-therapeutic Applications	NC Biotechnology Center
Craig Ogle (with Michael Murphy)	Rapid Injection NMR Studies of Copper (I) and Copper (III) Organocuprates	NSF
John Risley	Studies of Proteolytic Enzymes in Wheat Flour	Snyder's-Lance, Inc.

\* Listed faculty member is a co-PI; the PI is outside CLAS.

# Sponsored Research (Cont.)

Thomas Schmedake (with  
Banita Brown)

REU Site: Nanoscale Science Undergraduate Research  
Experiences (NanoSURE) at UNC

NSF

## CLAS - Dean's Office

Bill Hill

Lewis Stokes Alliance for Minority Participation  
Phase IV

NC Agricultural Technical  
State University

Molly Shaw

Charlotte Teachers Institute

Charlotte Mecklenburg  
Community Foundation

Charlotte Teachers Institute Exploding Canons:  
The Planets in Outer Space and Beyond

Arts Science Council

Charlotte Teachers Institute Exploding Canons:  
The Unexpected Impact of Romare Bearden

Arts Science Council

Charlotte Teachers Institute Exploding Canons:  
The Planets in Outer Space and Beyond

Foundation for the Carolinas

Knight Foundation/Charlotte Teachers Institute  
Exploding Canons Support

Foundation for the Carolinas

Charlotte Teachers Institute 2012-13 grant

Belk Foundation

## Communication Studies

Alan Freitag

Media Richness Theory in the context of Employee  
Communication in Poland

CIES Fullbright Scholar Program

## Criminal Justice and Criminology

Robert Brame

Pathways to Desistance from SU Problems and Crime

University of Pittsburg

Paul Friday

Montgomery County Gang Assessment

Montgomery County

Chinese Judge Training

Open Society Institute

Shelley Listwan

JoAn Wood Pilot Project Evaluation

Bonneville County Idaho

## English

Lilian Brannon

UNC Charlotte Writing Project

Department of Education

National Writing Project Middle Grades Research

National Writing Project

\* Listed faculty member is a co-PI; the PI is outside CLAS.

# Sponsored Research (Cont.)

	Digital Narratives in Urban Classrooms: A Contribution to Digital IS	National Writing Project (NWP)
Boyd Davis	Racial Variations in Communication, Decision-Making and Diabetes Outcome	Medical University of South Carolina
	Communication in CHF Care Coordination in Home Telehealth Implementation	Medical University of South Carolina

## Geography and Earth Sciences

Craig Allan (with John Diemer)	Beaverdam Creek Watershed Monitoring	Charlotte (City of) Storm Water Services
Harrison Campbell	2010 Labor Shed Study	Charlotte Chamber of Commerce
Gerald Ingalls	Town of Huntersville Planning Internships	Town of Huntersville
Anne Jefferson*	Influence of stormwater management structures on ecological function in urban streams	NSF
Ross Meentemeyer	RE-MEASUREMENT and ANALYSIS OF Long- term IMPACTS of <i>Phytophthora ramorum</i> in MIXED OAK WOODLANDS	USDA
	Continuation of Urban Growth Analysis and Modeling in North Carolina	Reynolds (Z Smith) Foundation Inc.
	Collaborative Research: Interacting Disturbances: leaf to landscape dynamics of emerging disease, fire, and drought in California coastal forests	NSF
(with Jean-Claude Thill)	Can Urbanization, Forest and Working Lands Coexist? Hierarchical Analysis and Modeling of Dynamic Interactions between Societal and Ecological Factors in the Charlotte Metropolitan Region	NSF
Ross Meentemeyer*; Jean-Claude Thill*	Renaissance Computing Institute Engagement Site in Charlotte, NC	UNC Chapel Hill
Heather Smith*; Janni Sorensen*	NCMHD Advances in Health Disparities Research on Social Determinants of Health	Carolinas Medical Center
Janni Sorensen	Connecting Campus Resources to foreclosure hit neighborhoods	Reynolds (Z Smith) Foundation Inc.
	Capacity building in Charlotte neighborhoods	Charlotte (City of)

\* Listed faculty member is a co-PI; the PI is outside CLAS.

# Sponsored Research (Cont.)

Charlotte Action Research Project - Capacity Building  
in Charlotte Neighborhoods

City of Charlotte Neighborhood  
Development Key Business

Wenwu Tang (with  
Douglas Shoemaker and  
Ross Meentemeyer)

Development and Operation of a Web GIS-enabled  
Data Management System for the Santee Experimental  
Forest

USDA

## History

Walter Davila (with  
Jurgen Buchenau and  
Thomas Rogers, Africana Studies)

Legacies of the African Diaspora in Brazil and the  
United States: Persistent Inequalities

Department of Education

Gregory Mixon

African American Struggle for Freedom and Civil  
Rights, 1865-1965

Harvard University

Amanda Pipkin

Early Modern Translation: Theory, Practice, History

Gladys Kriebel Delmas Foundation

Steven Sabol

The Montana Council of Defense

Montana Historical Society

The Montana Council of Defense, 1917-1921

Brigham Young University

## Mathematics and Statistics

Wei Cai

Algorithms for Nonlinear Maxwell Equations in  
Nonhomogeneous Media and Photonic Resonant  
Waveguides with Coupled Microspheres

Department of Energy

Numerical Methods for Wave Propagations in  
Inhomogeneous Media

NSF

(with Andriy Baumketner, Physics;  
Donald Jacobs, Physics; and  
Shaoyong Deng, Mathematics)

Numerical Methods for Fast and Accurate Calculation  
of Electrostatic Interactions in Biomolecular  
Simulations

DHHS/NIH/NIGMS

Yuanan Diao

Collaboration Research: A Study of the Transition of  
Knot Space from Confinement to Relaxation

NSF

Michael Klibanov

The Second Generation of Globally Convergent  
Numerical Methods for Coefficient Inverse Problems

DOD/Army/Army Research Office

Transrectal Imaging of Prostate Cancer Using a  
Globally Convergent Reconstruction Method

University of Texas at Arlington

Stanislav Molchanov (with  
Boris Vainberg)

Propagation of Waves in Complex Media, and  
Analysis of Small Noises

NSF

Hae Oh

Meshfree Particle Methods for analysis of elastic  
Plates and Shells

NSF

Yanqing Sun

Statistical Methods in HIV Vaccine Efficacy Trials

DHHS/NIH/NIAID

\* Listed faculty member is a co-PI; the PI is outside CLAS.

# Sponsored Research (Cont.)

Zhi Zhang	Estimation of Discrete Probability Distribution with a Pareto Tail	NSF
-----------	--	-----

## Philosophy

Emanuela Bianchi	Toward a Bastard Politics	University of Dundee
Marvin Croy	Computer Simulations in the Humanities	National Endowment for the Humanities
Rosemarie Tong	Bioethics Resource Network	NC Biotechnology Center

## Physics and Optical Science

Vasily Astratov	Photonic Devices Based on Circuits of Supermonodispersive Spherical Cavities	DOD/Army/Army Research Office
(with Nathaniel Fried)	Novel Optical Microprobes for Ultra-Precise Intraocular Laser Surgery	Southeast Techinventures Inc.
Angela Davies	In Situ Form Metrology in Manufacturing by Combining Engineered Optical Scattering and Photogrammetry	NSF
Michael Fiddy	Electromagnetic Scattering Studies	DOD/Army/Army Research Office
Michael Fiddy	IUCRC for Metamaterials	NSF
(with Nathaniel Fried, Patrick Moyer and Tsing-Hua Her)	Collaborative Initiative in Biomedical Imaging to Study Complex Diseases	UNC Chapil Hill
Michael Fiddy*; Oleg Smolski*	MRI: Development of a High-Pressure MOCVD for III-Nitride Semiconductor Devices	NSF
Nathaniel Fried	Optical Based Sealing, Cutting, and Characterization of Tissue	Covidien
Eric Johnson	Novel FEL Cavity Optic	NSF
	3D Meta-Optics for High Energy Lasers	DOD/Army/Office of Scientific Research
	Engineered Laser Filaments in Air Force Defense Stand-Off Sensing and Interaction Applications	University of Central Florida
(with Oleg Smolski and Menelaos Poutous)	Vertical stacked Short-range Wide-field-of-view Extremely-agile Electronically-steered Photonic EmitteR (V-SWEEPER)	Sarnoff Corp
Thomas Suleski	High speed micro-milling of optical devices for infrared beam shaping and imaging (yr 3)	II-VI Foundation
	Miniaturized Infrared Lens Arrays for Computational Imaging	FiveFocal LLC

\* Listed faculty member is a co-PI; the PI is outside CLAS.

# Sponsored Research (Cont.)

## Political Science and Public Administration

Mary Brown	Acquisition Risks in a World of Joint Capabilities	NPS (Naval Postgraduate School)
James Douglas	Public Service Fellowship for the Arts and Science Council	Arts Science Council
	Public Service Fellowship #2 for Seigle Avenue Partners	Seigle Avenue Partners
William Brandon	CAHPS Medicaid Survey 2011	NC Department of Health Human Services

## Psychology

Mason Haber	Evaluation of the Relatives/Alexander Youth Network On Ramp program, FY '10 - '11	Mecklenburg County Mental Health
	North Carolina Families United - RENEW Evaluation, FY '10 - '11	North Carolina Families United
Ryan Kilmer (with James Cook)	Evaluation of MeckCARES: Year 6	Mecklenburg County Mental Health
Richard McAnulty	Public Defender Office Request of Paid Internship	Mecklenburg County

## Religious Studies

Kent Brintnall	Wabash Center for Teaching and Learning Pre-Tenure Faculty Workshop	Wabash College
Kathryn Johnson	Cedar Tree	NC Department of Administration
David Mozina	Quelling the Divine: The Performance of a Talisman in Contemporary Daoist Thunder Ritual	Chiang Ching-kuo Foundation
Jeremy Schott	Eusebius of Caesarea: Text and Tradition in Late Ancient Christianity	National Endowment for the Humanities

## Sociology

Roslyn Mickelson	The Relationship Between Integrated Housing and Schools: A Review of the Literature	Poverty and Race Research Action Council (PRRAC)
Stephanie Smith	Collaborative Research: Work-Family Policy Effects on the Cross-National Incidence and Depth of Poverty for Women and Children	NSF
(with Mary Stearns and Roslyn Mickelson)	Do Professional Communities Improve K-16 Curricula Mastery and Augment Mathematics Achievement?	Department of Education
Mary Stearns (with Roslyn Mickelson)	Finding the roots: interactive influences of individual, secondary school, and college institutional factors on the success of women and underrepresented minorities in STEM majors	NSF

\* Listed faculty member is a co-PI; the PI is outside CLAS.