ABOUT THE INITIATIVE PROGRAM

Since its inception in 2009, the 21st Century Graduate and Professional Student’s Academic Studies Initiative (commonly known as The Initiative) has strived to enhance the graduate student experience at Chicago State University. Funded by the United States Department of Education with one of only five federal MPBI grants in the nation (Masters Degree Programs at Predominantly Black Institutions), the Initiative has supported students in four disciplines: Biology, Geographic Information Systems, Mathematics/Computer Science, and Occupational Therapy.

Through the program, Initiative Students have:

- Traveled to and presented at local and national conferences;
- Received financial support and tuition assistance;
- Received laboratory, research, and other school supplies;
- Visited the Library of Congress and access rare and unique sources of information for their research;
- Attend a series of academic and life-training workshops and
- Received financial literacy training.
INITIATIVE GRADUATES FOR MAY 2013

- Mr. Akida Stallworth (Biology)
- Ms. Clarice Gumm (Biology)
- Mr. Michael Hinton (Biology)
- Ms. Georgette Lifschultz (GIS)
- Ms. John Owens (GIS)
- Mr. Noah Sager (GIS)
- Mr. JoVan Harrison (Mathematics)
- Mr. Darius Holmes (Mathematics)
- Ms. Danielle Mitchell (Mathematics)
- Ms. Latanwa Fletcher (Occupational Therapy)
- Ms. Shirley Hilderbrand (Occupational Therapy)
- Ms. Christine James (Occupational Therapy)
- Ms. April Lewis (Occupational Therapy)
- Ms. Pamela Osisoma (Occupational Therapy)
- Ms. Melanie Plews (Occupational Therapy)
- Ms. Brooke Pulley (Occupational Therapy)
- Ms. Rhonda Walker (Occupational Therapy)
The 21st Century Initiative Workshop Series Presents:

A WRITING WORKSHOP
WITH PROFESSOR KIM L. DULANEY
FEBRUARY 9TH, 2013

Join the Initiative at 10:30am on Saturday, FEBRUARY 9TH, 2013 for a Writing Workshop with CSU Professor Kim L. Delaney. The workshop will be held in the Sun Room on the 4th floor of the New Academic Library.

Breakfast Will Be Served

THE 21ST CENTURY INITIATIVE IS SPONSORED BY AN MPBI GRANT FROM THE US DEPARTMENT OF EDUCATION.

Ms. Kim L. Dulaney
Professor Kim Dulaney leading the writing workshop
21ST CENTURY INITIATIVE PRESENTS:
A WORKSHOP ON FINANCIAL LITERACY
SATURDAY, FEBRUARY 23RD, 2013 AT 10:30AM

SPEAKER: Mr. Luke Nwanunu
LOCATION: The workshop will be held in the Sun Room on the 4th floor of the New Academic Library.

Breakfast will be served.

9501 S. KING DRIVE JDC 201  CHICAGO, IL 60628
TELEPHONE: (773) 995-5044   FAX: (773) 995-3530
Mr. Luke Nwanunu highlighting important aspects of financial planning
Mr. Nwanunu concluding his lecture on financial planning and literacy
The 21st Century Initiative Workshop Series Presents:

A Workshop on Internationalism

THE 21ST CENTURY INITIATIVE WORKSHOP SERIES PRESENTS:

THE SOCIOLOGY OF AUTHENTICITY
WITH DR. BEVERLY JOHN
MARCH 23, 2013

JOIN THE INITIATIVE AT 10:30 AM ON SATURDAY MARCH 23RD, 2013 IN THE SUN ROOM OF THE NEW ACADEMIC LIBRARY FOR A PRESENTATION BY DR. BEVERLY JOHN
Dr. Beverly Johns leading a workshop about the Sociology of Authenticity
The 21st Century Initiative Workshop Series Presents:

The Benefits of Reading
WITH Professor Quraysh Ali Lansana
April 6th, 2013

Join the Initiative at 10:30am on Saturday, April 6th, 2013 for a workshop on the importance of reading. The workshop will be held in the Sun Room on the 4th floor of the New Academic Library.

Breakfast Will Be Served
Professor Quraysh Ali Lansana championing the benefits of lifelong reading habits to a group of Initiative Students
THE FOURTH ANNUAL 21st CENTURY INITIATIVE RESEARCH CONFERENCE:

SUPPORTING & EFFECTING HIGHER LEARNING AND IMAGINATION
APRIL 13, 2013
**Abstract**

Acute serum amyloid A (A-SAA) is a major acute-phase protein with cytokine-like properties that is expressed at sites of inflammation. A-SAA induces migration of immune cells to sites of inflammation and enhances adherence to epithelial cells. A-SAA plasma levels are 1000 times higher in patients with autoimmune diseases such as rheumatoid arthritis (RA). The purpose of this study is to determine if A-SAA could be classified as a chemokine. A cytokine and a chemokine are small proteins made by cells in the immune system. Cytokines are messenger molecules, while chemokines are a distinct kind of cytokine that direct the migration of white blood cells to diseased or injured tissue. Chemokines induce chemotaxis, the movement of a cell or group of cells that follow a chemical messenger to a new location, especially leukocytes toward foreign microorganisms. Chemokines cause cells to change their shapes and adhere to epithelial walls inside vessels upon binding to receptors on their target. A new mathematical approach called the natural vector method was used for genome sequencing of all major chemokines and the protein SAA. A-SAA was clustered with two chemokines. The human receptors for these chemokines were subcloned into a mammalian expression vector. The vectors were transfected into rat basophil cells (RBL). FACS analysis has shown that these cells now express two human receptors, hCCR1 and HCXCR3, respectively. Future experiments will confirm if A-SAA is a chemokine by performing a calcium mobilization assay and map kinase activation assay when A-SAA binds to these receptors. [This study is supported by NSF grant DMS-1119612 awarded to Rong L He]
Abstract
This presentation will cover a summary of topics and current events relating to graduate level work and research completed at Chicago State University Master of Public Health program. The topics covered will include: major contributions of public health practitioners, the science of epidemiology, environmental health issues, biostatistical analysis for collection of data, the need for research proposals and methodologies, minority health issues, and the disparities that exist in our communities today and what we need to focus on to decrease and eliminate them.
Ms. Ruth Osborne
Title: Histological characterization of hollow and solid-stemmed genotypes of wheat (Triticum aestivum)
Ruth Osborne1, Jamie Sherman2 Luther Talbert2 Dale R. Clark3 & Christopher Botanga1
1Department of Biological Sciences, Williams Science Center, Room 310, Chicago State University. IL 60628
2Department of Plant Sciences & Plant Pathology, Leon Johnson Hall Room 419b, Montana State University. MT 59717
3PNW Breeder & Specialty Lead, WestBred, 81 Timberline Drive, Bozeman, MT 59718-6994

Abstract
Wheat serves as a major cash/food crop in the United States and other parts of the world. Wheat farmers suffer major yield losses due to sawfly, Cephus cinctus, a pest that causes lodging by burrowing into the stem. Some wheat cultivars have stems with solid piths, making them resistant to sawfly. Characterizing the solid-stemmed phenotypes would offer the basis for engineering the trait into desirable wheat cultivars. The aim of this project was to evaluate the histological differences between hollow- and solid-stemmed wheat genotypes. Wheat NILS, having 97% similarity in their genetic makeup (except for the solid stem locus) were grown in the greenhouse and destructively sampled at 5-, 6-, and 7-weeks. Stems were snap-frozen, cross-sectioned and evaluated under a scanning electron microscope (SEM). Structural differences between solid and hollow-stemmed wheat were observed at the 7-week growth stage. The epidermis, vascular bundles, and parenchyma cells were observed in both classes of genotypes at 100x magnification. The solid-stemmed genotypes showed thicker epidermis and larger vascular bundles than the hollow-stemmed genotypes. However, there were no obvious differences in the parenchyma cells for both classes of the genotypes. Further analysis with ImageJ showed that the distance from the pith to the epidermis of the wheat stem was greater in the solid-stemmed phenotype than the hollow-stemmed phenotype. The ImageJ data confirmed an earlier report that solid-stemmed wheat had narrower stems than the hollow-stemmed wheat genotypes. We are currently seeking answers to the molecular basis of the observed differences.
Mr. Jovan Harrison

Abstract
I'm completing a Master's Project in Mathematics at Chicago State University; my presentation will cover a briefing on my survey regarding Urban Violence. The survey will compare the perception of violence in the communities of CSU students to the mass media's perceptions of violence. I plan on correlating the CSU statistics with government agencies.
Academic Reflections:

Mr. Calvin Burns

Ms. Mattie Carter
Dr. William Ebomoyi
Professor
Department of Health Studies
College of Health Sciences
Chicago State University

Presentation Title: **Genomics Applications in Public Health Across All Populations, Environment, and Work Settings**

**About Dr. Ebomoyi**
Dr William Ebomoyi holds a post-doctorate certificate in epidemiological science from the National Institutes of Health and a Ph.D from University of Illinois at Urbana-Champaign.

He is the inaugural chair of the Department of Health Studies at Chicago State University.

He is an International Health Consultant for the American Public Health Association, a member of the World Health Organization and a member of the Expert Committee in Global Environmental Epidemiology.

Dr. Damon T. Arnold

Associate Dean of Health Sciences, Chicago State University, Adjunct Professor, University of Illinois College of Medicine and School of Public Health

Biography

Col Damon T. Arnold, M.D., M.P.H., CMT (Ret.) is the Director of the Public Health Graduate Program at Chicago State University and an Adjunct Professor at the University of Illinois College of Medicine and the School of Public Health. Dr. Arnold was appointed as the 16th Director of Public Health on October 1, 2007 for the State of Illinois where he operated an agency of 1123 employees with an annual budget of over 600 million dollars. The agency was responsible for the public
health concerns of the approximately 12.5 million residents within, and millions of annual travelers to, the State of Illinois. During his four years in this position, he brought millions of dollars to the State of Illinois and was very active on the local, state, and federal levels.

For 26 years, Dr. Arnold served in the Army National Guard as the Commander of the Joint Medical Command and State Surgeon General for years. He completed 17 over-seas missions to include locations in Africa, Central America, South America, Europe, the Middle East, and Asia. He was awarded the highly coveted Military Legion of Merit Medal from President Barack Obama for his achievements. Dr. Arnold was also awarded three Army Commendation Medals for his wartime deployments to Iraq and Kuwait where he served as the Officer in Charge of battlefield medical operations. During these deployments, he functioned as a mechanized infantry Combat Medic as well as a qualified Flight Surgeon on over 80 field operations. In addition, he received two National Defense Service Medals as well as awards upon the battle field.

Dr. Arnold obtained his undergraduate degree from Howard University in Washington, D.C. and both his M.D. and M.P.H. Degrees from the University of Illinois in Chicago, Illinois. He completed his Residency in Internal Medicine at Cook County Hospital, followed by a Residency in Occupational Medicine. In addition, he has completed formal training in Holistic Medicine for therapeutic massage therapy and acupuncture.

Dr. Arnold presently serves as a member of the Harvard University L.A.M.P.S. Committee, Institute of Medicine in Washington, D.C., Association of State and Territorial Health Officials, and several federal-based organizations. He has published many articles and contributed to books over the years.

(Information taken from: http://www.uic.edu/sph/minority-health-conference-2012/Damon-Arnold)