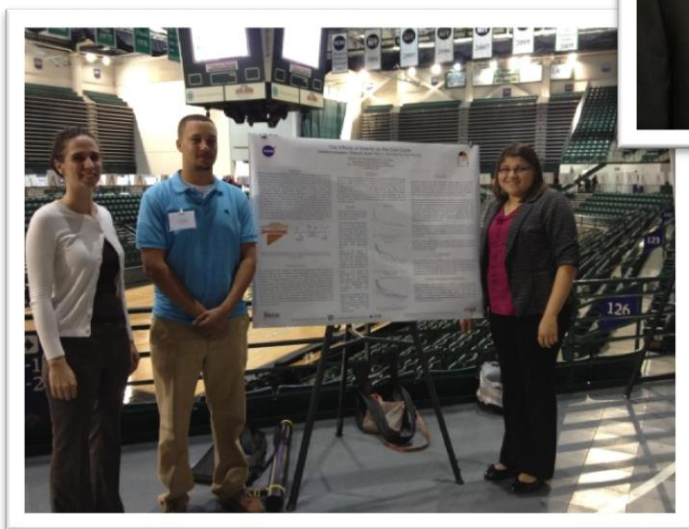
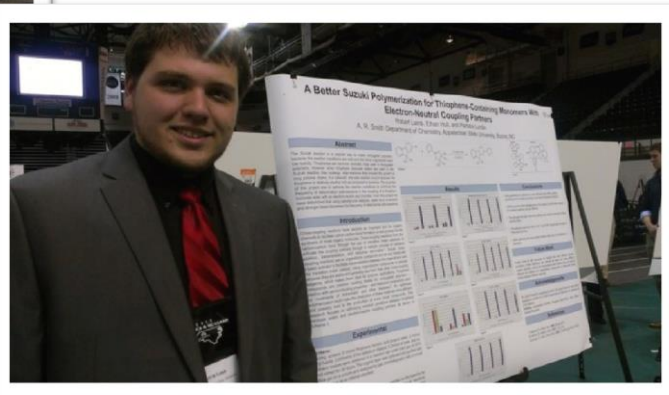
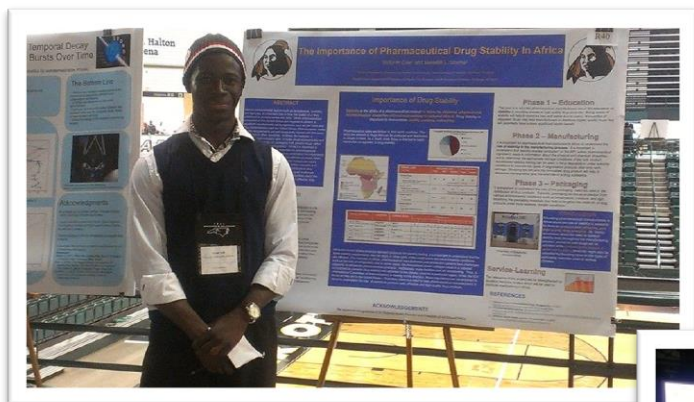




State of North Carolina Undergraduate Research & Creativity Symposium



**Saturday November 16, 2013
UNC Charlotte**



The ninth State of North Carolina Undergraduate Research and Creativity Symposium (SNCURCS) was held jointly with the North Carolina Louis Stokes Alliance for Minority Participation (NC-LSAMP) on November 16, 2013 and hosted by the University of North Carolina at Charlotte. This annual event serves as a forum for *undergraduate* students to present their own research and creative activities. Presentations include oral talks, poster presentations, art displays, and musical and dance performances. Due to the generosity of a large number of donors, there is no registration fee for the students and yet the event is run like any professional meeting with a luncheon, “swag bags”, invited speakers, etc. SNCURCS was originally founded in 2003 as the Triangle Undergraduate Research Symposium for students from Duke, NC State and UNC Chapel Hill. Since then it has grown significantly and is hosted by a different college each year. This year’s event at UNC Charlotte drew over 460 presenters representing 35 different schools.

UNC Pembroke is well represented each year at SNCURCS and 2013 was no exception. UNCP had 16 students making 12 presentations. The students came from 5 different departments and were supervised by 14 different mentors, with 2 student presentations representing research projects conducted with other universities. How does UNCP compare to the other participating schools? Of the 35 schools represented, only 9 had a larger representation than UNCP (App. State, ECU, Fay. State, Johnson C. Smith, Methodist, NC A&T, NC State, UNC Chapel Hill, and UNC Charlotte) and there were 3 other schools also with 12 presentations (Duke, UNC Greensboro, and Wake Forest). The UNCP student presentations at SNCURCS are truly a testament to the quality, diversity, and extent of student scholarship on the UNCP campus.

For more information on the symposium please visit <http://www.sncurcs.org/index.html> or contact the PURC Center at 521-6195 or visit <http://www.uncp.edu/purc/>

Student Presentations at the 2013 SNCURCS Conference

Bioactivity of purified antibacterials secreted by entomopathogenic bacteria *Xenorhabdus nematophila* and *Photorhabdus luminescence*

Matt Bowen, Biotechnology, University of North Carolina - Pembroke

Mentor(s): Len Holmes, University of North Carolina - Pembroke

Floyd Inman III, University of North Carolina - Pembroke

The Importance of Pharmaceutical Stability in African Countries

Victor Cole, Pre-Pharmacy, University of North Carolina - Pembroke

Mentor(s): Meredith Storms, University of North Carolina - Pembroke

Design and Manufacture of an At-Home Basic Electronics Kit

Edward Derosier, Applied Physics, University of North Carolina - Pembroke , Pembroke
Mentor(s): Bill Brandon, University of North Carolina - Pembroke

Forest Fragmentation of Southeastern North Carolina

Justin Duncan, Environmental Science and Geography, University of North Carolina - Pembroke , Pembroke
Mentor(s): Jesse Rouse, University of North Carolina - Pembroke

Surveying Red Imported Fire Ant Social Forms in Nature Preserves of the NC Coastal Plain

Nigel Hirth, Molecular Biology, University of North Carolina - Pembroke
Co-Author(s): Mycah Sewell, University of North Carolina - Pembroke
Mentor(s): Jeremy Sellers, University of North Carolina – Pembroke,
Lisa Kelly, University of North Carolina - Pembroke

Simplistic Sonar-based SLAM Platform for Low-Cost Unmanned Aerial Quadcopter Systems

Christopher Hudson, Computer Science, University of North Carolina - Pembroke
Mentor(s): Saad Biaz, Auburn University Chase Murray, Auburn University

A Better Suzuki Polymerization for Thiophene-Containing Monomers with Electron-Neutral Coupling Partners

Robert Lamb, Chemistry, University of North Carolina - Pembroke
Mentor(s): Pamela Lundin, Appalachian State University

The Effects of Gravity on the Cori Cycle

Candace Langston, Exercise and Sport Science, University of North Carolina - Pembroke
Co-Author(s): Tiffany Scott, University of North Carolina - Pembroke ;
Molly Musselwhite, University of North Carolina - Pembroke
Mentor(s): Siva Mandjiny, University of North Carolina - Pembroke
Tim Ritter, University of North Carolina – Pembroke

Annotating Genes In Drosophila Species Through The Genomics Education Partnership: a Summer Research Experience

Thomas Neal Biology w/ Biomedical Emphasis, University of North Carolina - Pembroke
Mentor(s): Maria Santisteban, University of North Carolina - Pembroke

Geometer's Sketchpad vs. GeoGebra

Ziya Ogron, Secondary Mathematics Education, University of North Carolina - Pembroke
Mentor(s): Mary Kilinikowski, University of North Carolina - Pembroke

Attraction of *Galleria mellonella* larvae to bacterial luminescence produced by the entomopathogenic bacterium *Photobacterium luminescens*

Walter Patterson, Biotechnology, University of North Carolina - Pembroke

Mentor(s): Len Holmes, University of North Carolina – Pembroke;

Floyd Inman III, University of North Carolina - Pembroke

Working Past the Struggle: Documenting the Voices of the Lumbee

Sandra Torres, Social Work , University of North Carolina - Pembroke

Mentor(s): Michele Fazio, University of North Carolina - Pembroke