



## **Carolina Photonics Consortium Announces Five Funding Awards**

### **Awards Represent New Company Opportunities in Broad Markets**

November 21, 2007 - The Carolinas Photonics Consortium (CPC) selected five proposals for seed funding aimed at commercializing photonics-based technologies. Each winning proposal will receive \$10,000, plus business and market development support from the Technology, Entrepreneurship and Commercialization initiative at North Carolina State University's College of Management.

The winners selected were:

#### **Clemson University: Dr. Phil Brown: "Light Emissive Nanocomposite Fiber"**

(Incorporating specific nanoparticles into unique fiber structures could produce fibers with optical properties that have applications in textile authentication and security system products.)

#### **Duke University: Dr. Quincy Brown: "Illuminus"**

(This proposal plans to develop a non-invasive and quick optical spectroscopy of potentially cancerous breast tissue.)

#### **North Carolina State University: Dr. Mark Johnson: "Integrated Cooling Device for High-Power Semiconductor Lasers"**

(Removing heat from semiconductors is a major issue which causes inefficiencies and additional cost in existing light emitting devices used in numerous markets.)

#### **University of North Carolina at Charlotte: Dr. Mike Fiddy: "Sub-Wavelength Optical Scalpel"**

(Novel optical designs can lead to smaller spot sizes for delivery of power for high precision surgical or industrial needs.)

#### **Western Carolina University: Dr. Pat Gardner: Interferometric Imaging and Rapid Prototyping of Podiatric Arch Supports"**

(Utilization of two optical technologies could lead to customized orthopedic devices with improved fit and reduced turn-around time.)

"The five winning programs are excellent examples of photonics-based technologies which will address immediate needs in widely varying markets," said Jeff Conley, interim director of CPC. "The process of selecting the five winners was very difficult as we had 28 deserving proposals. We were fortunate to have an excellent Advisory Committee which represented all of the universities, a wide array of photonics-based technologies, local early stage investments and regional interests. The CPC Advisory

Committee will provide feedback to all proposal submitters as we want to continue to improve the process and encourage the submitters to resubmit proposal in the future,” he said.

### **More Information:**

[www.carolinasphotonics.com](http://www.carolinasphotonics.com)

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### **What is CPC?**

Each of the five consortium members has nationally respected programs in photonics. North Carolina State University College of Engineering’s strengths are in photonic devices, optoelectronic and semiconductor materials and information technology. The Center for Optoelectronics and Optical Communications at The University of North Carolina at Charlotte has a core competence in microoptics and modeling of optical systems. Western Carolina’s Center for Rapid Product Realization provides prototyping, testing and design expertise for new product scale up. The Fitzpatrick Institute for Photonics at Duke has research programs in biophotonics, nano & micro systems, nanophotonics, and quantum optics and information. Clemson’s Center for Optical Materials Science and Engineering Technologies (COMSET) is focused on the development of novel optical materials. Over \$300M has been invested from state and federal funds over the last five years, making CPC the largest concentration of photonics-based resources in the country.

Photonics-based technologies are used in a wide array of everyday products, including: DVD players, long distance communication, medical and dental surgeries, dash board lighting, missile guidance and garage door sensors. Photonic technologies are being used to complement or replace electronics in almost every facet of our lives. Recent advances include high intensity lighting, biochemical detection, high powered lasers for manufacturing needs and early cancer detection. One of the primary goals of the CPC is the commercialization of photonics-based research by awarding funds to competitively submitted proposals from the five campuses.