

UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

News and Events

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UNCW CMS Researcher Wins Prestigious Award

By Walter Zaykowski, Marketing and Communications Intern

Wilmington, N.C. - Andrea Bourdelais, associate research professor at the University of North Carolina Wilmington Center for Marine Science, recently received the Jack L. Beal Award for her article published in the *Journal of Natural Products. JNP*, distributed by American Chemical Society Publications, is the flagship journal for the American Society of Pharmacognosy. It focuses on the study of the physical, chemical, biochemical and biological properties of drugs, drug substances, or potential drugs or drug substances of natural origin as well as the search for new drugs from natural sources.



Bourdelais' article, awarded the best paper of 2005 submitted by a young investigator, discusses a new polyether compound isolated from the toxic marine dinoflagellate (*Karenia brevis*). The toxicity of *Karenia brevis* is linked to the production of a family of neurotoxins known as brevetoxins. Brevetoxins are responsible for Florida's red tides which result in the death of millions of fish annually along Florida's Gulf Coast. The compound discussed in the paper, brevenal, has generated a great deal of interest because of its unique ability to reduce the fatal effects in fish caused by harmful brevetoxins. Additionally, brevenal may also be useful as a treatment for mucociliary disorders, such as cystic fibrosis.

In addition to working as an associate research professor, Bourdelais is the lab director for Daniel Baden's lab and is also a group leader in the marine biotechnology program at the CMS. Her research includes isolating novel natural products from marine organisms that may have therapeutic potential in humans and developing new biosensors and bioassays for the detection of toxins and natural compounds discovered locally at the Center.

The Jack L. Beal Award is given to investigators who are within 12 years of receiving their Ph.D. degree or within 10 years of gaining their first professional appointment. Bourdelais earned a B.A. in biology from the University of Vermont, her Ph.D. in pharmacology and toxicology from Washington State University, a post-doctorate degree from Yale University in psychology and pharmacology and her master's in psychology from UNCW. The award includes a check for \$1,000 and a plaque as well as an invitation to the American Society of Pharmacognosy meeting on Aug. 9 in Washington, D.C., where Bourdelais will be honored for her achievement and receive her winnings.

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