

Innovative Ideas – University of North Carolina Wilmington

Categories: Teaching

Project Name: Business of Marine Biotechnology Program

The Idea: Identify well trained scientists who have ideas about how to translate research into business opportunities and ensure that they have solid business skills to maximize their chance of success. Successful marine biotechnology industries require entrepreneurs with expertise in both science execution and business practices.

Project Execution: Faculty in the Center for Marine Science and the Cameron School of Business collaborate to offer four postdoctoral fellowships in marine biotechnology. Candidates must have a Ph.D. in a biotechnology-related area and are expected to conduct research in marine science laboratories in the Center while pursuing a professional MBA degree in the University's Cameron School of Business. Students in the MBA portion of the program master the core functions of business, develop analytical and quantitative business skills, and study current and future business issues through real world experiences with regional companies involved in marine biotechnology. The research portion involves working in one of three focus areas in UNCW's MARBIONC program (Marine Biotechnology in North Carolina): Marine Pharmaceuticals; Mariculture; or Bioanalytical Processes.

External Impact: The goal of this two year program is to produce individuals with a solid science background as well as the business skills needed to prosper in a modern competitive business environment. Measurable external impacts already realized include a new rapid detection kit for bacterial pathogens in oysters (pathogen-free certification is required prior to sale or inter-state transport), new species-specific food formulations for fish mariculture, and novel detection methods for new marine natural products in neurology, immunology, and pulmonary toxicology. The city of Wilmington has designated March 12-16, 2007 as Marine Biotechnology Week, based in part on our success.

Internal Impact: Marine science is interdisciplinary, with chemical, physical, biological, and earth scientists collaborating in synergistic ways. The Business of Marine Biotechnology program has illustrated that further synergy, perhaps with even larger impact, can be achieved by bringing in other disciplines. Marine Science with Business is one prime example; marine sciences with biomedical sciences provide opportunities in Oceans and Human Health (OHH); and the interaction of marine science with engineering has provided the basis for the developing Integrated Ocean Observing System (IOOS). UNCW is employing the cross-disciplinary approach in a variety of ways, to develop new programs in marine policy, coastal margin economics, marine science education, and coastal public health agendas. Without completely revising course curricula in a variety of departments and schools, new and highly innovative undergraduate, graduate, and postdoctoral training possibilities allow our students to achieve degrees with significant, heightened future impact.

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