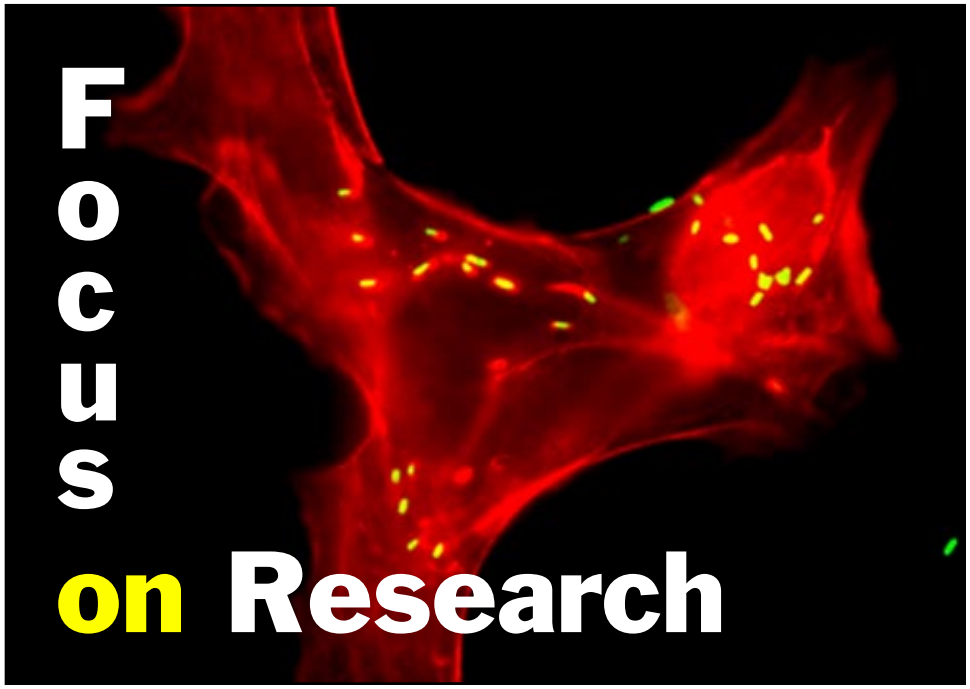
Sea Grant New York

Photomicrograph of *Listeria*, courtesy of Martin Wiedmann



Focus on Research

Sea Grant's university-based research is very special – high quality and chosen to take an unbiased look at priority questions. It has the scientific rigor of work funded by the National Science Foundation with the additional requirement of real-world stakeholder review. New York Sea Grant's research is expected to "make a difference" by providing useful results to the public, businesses, and managers. Given the variety of marine, aquatic, and coastal topics covered by our grants to top-notch physical oceanographers, food scientists, benthic ecologists, aquatic toxicologists, fisheries modelers, geochemists, and others, NYSG serves as an important resource for New Yorkers with many different interests and information needs. NYSG research also sets benchmarks within the scientific community, advancing the state of knowledge in many fields.

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NOAA National Oceanic and Atmospheric Administration, U.S. Department of Commerce

COASTLINES

Focus on Research

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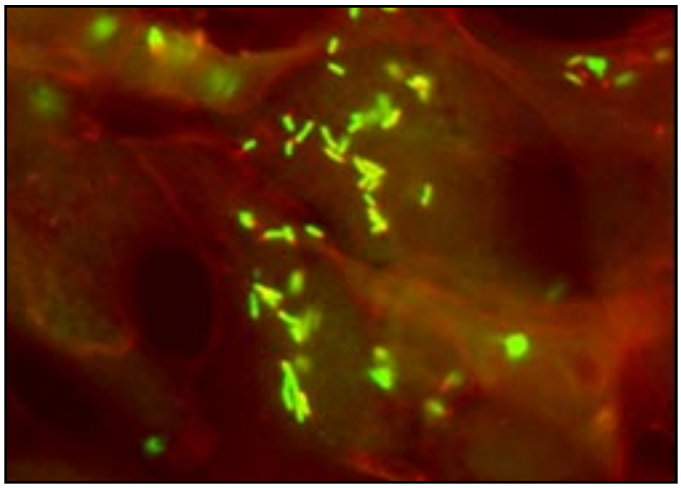
Photo courtesy of Martin Wiedmann, Cornell University

Michael Gray, a laboratory technician in Cornell's Food Lab, inspects his tissue culture assay.

With more than $1 million of core funds per year dedicated to it, research is the single largest component of NYSG's state and federal base budget. Competition for grant funds is high, and the selection of projects for NYSG's portfolio is a science in itself. It includes programmatic screening of preproposals submitted in response to a priority-driven *Call for Proposals,* peer review and Technical Review Panel evaluation of full proposals, and input from stakeholders. Final selection depends on technical soundness and anticipated usefulness of the results. Even if a proposal addresses a crucially important topic, if the science or methods are questionable or subpar, New York Sea Grant will not fund it. The rigor of our technical review process is highly praised and provides the foundation for NYSG's scientific credibility.



New York has tremendous research talent in its many universities and research-capable institutions. NYSG's Calls are sent to more than 300 individuals in nearly 100 institutions, usually attracting about four times as many applications as can be funded. New faculty names are continually being added to our mailing list and roster of funded investigators. Occasionally we must look beyond New York's borders to find expertise for certain topics, but funding NY faculty helps to reinforce and build their interests in addressing the state's coastal problems and opportunities.

The cost/benefit ratio and the non-federal match requirement of Sea Grant research makes it a very wise investment. A typical core research project will run about $80K per year for two years and include the hands-on training of at least one graduate student. More than 20 such efforts can be underway at any one time. Counting research funded under other initiatives in addition to NYSG's core program, that number usually climbs close to 50. Research accountability is key, being evaluated regularly via required progress reporting. Presentations at scientific conferences and peer-reviewed publications validate the work's technical quality and academic interest in the results. But, that's just the first step.

Just as important to Sea Grant is *practical* use of the proven, new information. This takes the research a vital step beyond the mandate of other funding organizations. And, that's where the extension program staff comes in. With skills in technology transfer and outreach, extension specialists know who the concerned stakeholders are and can convey the results to them in ways most effective for application — conducting business and making decisions. It is truly a unique, effective, and highly-appreciated model. New York Sea Grant is finely-tuned to develop and deliver the science you and others need to wisely utilize, conserve, develop, and enjoy our coastal resources.

— Cornelia Schlenk
Assistant Director

Photos:
Cover: Photomicrograph of *Listeria*, (yellow and green) inside an animal cell courtesy of Martin Wiedmann, Cornell University.

Above: Higher magnification of photomicrograph of an animal cell infected with *Listeria monocytogenes*, a harmful pathogen occasionally found in ready-to-eat foods such as soft cheeses and smoked fish. In order to assure consumers that such foods are safe, the government has established a "zero tolerance" for this pathogen. While the common bacteria has been known to harm people with compromised immune systems, NYSG-funded researcher Martin Wiedmann from Cornell's Food Science Department believes only a fraction of *Listeria* strains are actually responsible for human disease. In newly-funded NYSG research, Wiedmann's techniques are currently being applied to *Vibrio,* a pathogen often associated with oysters.