facilities and infrastructure

FACILITIES AT THE HOLLINGS MARINE LABORATORY

The HML is a laboratory designed to promote interdisciplinary research through the sharing of expertise, specialized equipment, space, and other resources. Among the many tools available to scientists, the HML is equipped with state-of-the-art analytical instrumentation necessary to identify and quantify pollutants, toxicants, and pathogens; Level 2+ biosafety laboratories for dealing with viruses and other disease-causing organisms; seawater systems and aquaculture facilities to produce quantities of selected marine species for research; a nuclear magnetic resonance (NMR) facility for identification of marine toxins and potential pharmaceutical agents and for environmental metabolomics research; an ecological field collection launching and sample preparation area; a cryogenic specimen bank for preservation of a variety of marine-related biological samples, including protected species, and one of the nation's leading genomic laboratories devoted to marine species.

The HML has more than 41,000 square feet of dedicated laboratory space including:

Analytical and Environmental Chemistry

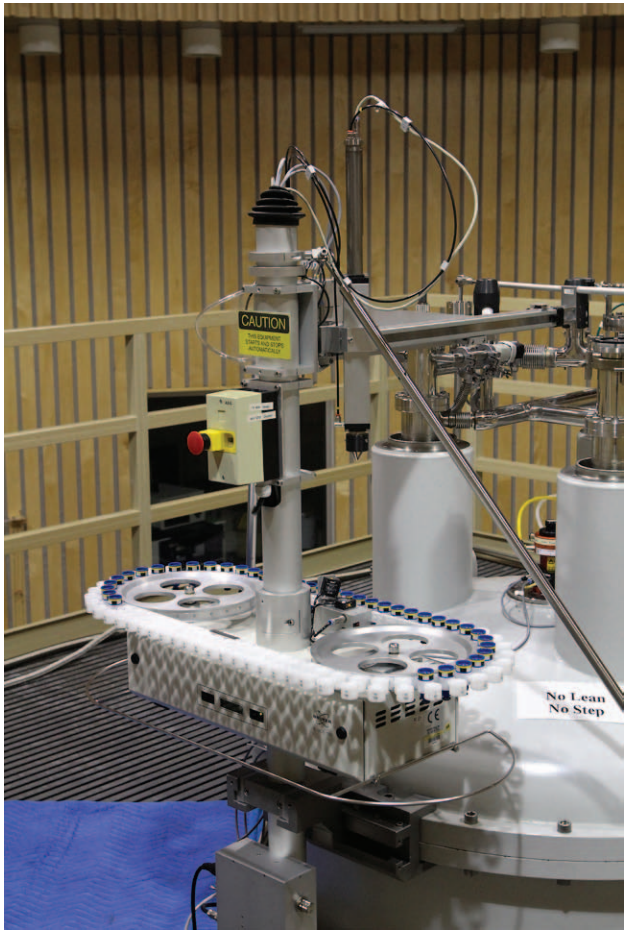
- Chemical measurement laboratories for environmental analyses which include elemental or molecular mass, molecular structure, and quantity of substances
- Nuclear magnetic spectrometry
- Mass spectrometry, including liquid chromatography, tandem, gas chromatography, and inductively coupled plasma mass spectrometry

Aquatic Production

- Ten independent seawater culture systems each with a self-contained filtration package totaling more than 100 cubic meters of culture volume together with a support lab and food preparation area
- Access to Waddell Mariculture Center

Ecological Field Processing

- Facilities for launching field collection activities, sample processing and equipment storage for ecological assessments and a platform for testing new tools and techniques
- R/V TideCreek (18' with 82" beam)



One of two high-field Nuclear Magnetic Resonance spectrometers (800 and 700 MHz) outfitted with a sample changer for automated, high-throughput analysis of metabolites, small molecules and proteins.