

report of the director and ceo

In my first full year at the MBL, considerable efforts were made to implement the recommendations of the MBL's 10-year strategic plan and explore ways to further enhance the MBL's outstanding research and educational programs through identifying scientific areas worthy of future investment.

The MBL's strategic plan calls for the laboratory to create the critical mass of researchers and faculty members needed to launch new initiatives; foster multi-disciplinary collaboration through new programs that combine the strengths of MBL scientists and centers to catalyze novel ways of thinking; accelerate the discovery process by providing endowed fellowships and modern research facilities for visiting scientists; stimulate the growth of new fields by bringing together scientists from distinctly different scientific disciplines; and upgrade essential campus facilities.

The renovation of the Whitman Building is one success story that has resulted from the strategic plan. The building was rededicated the Rowe Laboratory on August 1, 2007 in honor and recognition of the historic \$5 million gift made to the MBL by Chairman of the Board Jack Rowe and his wife Valerie. The celebration followed an aggressive nine-month transformation of the outdated 47-year-old building into a modern laboratory facility which is the new home of the Whitman Center for Visiting Research. In addition to providing visiting investigators with much improved research facilities equipped with the latest technology, renovating Rowe now enables the MBL to offer investigators an outstanding scientific venue for their research, twelve months of the year.

The finished product is a true testament to the fact that anything is possible if you gather the right team. In addition to the Rowes, I'd like to thank the Board of Trustees for their leadership, my predecessor Bill Speck for his vision, our many donors for their generous support, Whitman Center director Bob Goldman for his perseverance, facilities director Richard Cutler and his team at the MBL for getting the job done on time and on budget, and the many individuals involved in the project design and construction.

Identifying Areas of Investment and Building Capacity

As we continue to implement the recommendations of the strategic plan, considerable attention has been placed over the last year on identifying areas of future laboratory investment, particularly in regard to strengthening our resident research programs, and working towards building capacity to ensure their success. Two new initiatives launched in 2007—"micro-eco," and biodiversity and biomedical informatics—explore the links between global environmental change and human wellbeing.

Micro-Eco

With the MBL's existing strengths at the Ecosystems and Bay Paul centers, it is uniquely positioned to engage in the emerging field of "micro-eco," which builds on microbial ecology, yet adds powerful new tools for describing microbe communities and their contribution to the functioning of ecosystems. Understanding the capabilities of microbes in nature has enormous potential benefits, ranging from harnessing new sources of energy, to mitigating the effects of global warming, to discovering new therapeutics.



D. Cutrona



The newly renovated Rowe Laboratory



In 2007 we made several new faculty appointments in the in the fields of microbial ecology and evolution, comparative genomics, and bioinformatics, including the appointment of Ecosystems Center co-director Hugh Ducklow, a biological oceanographer who has been studying the dynamics of microbial foodwebs in estuaries, the coastal ocean, and the open sea and the role of heterotrophic bacteria in the marine carbon cycle for nearly 30 years.

Biodiversity and Biomedical Informatics

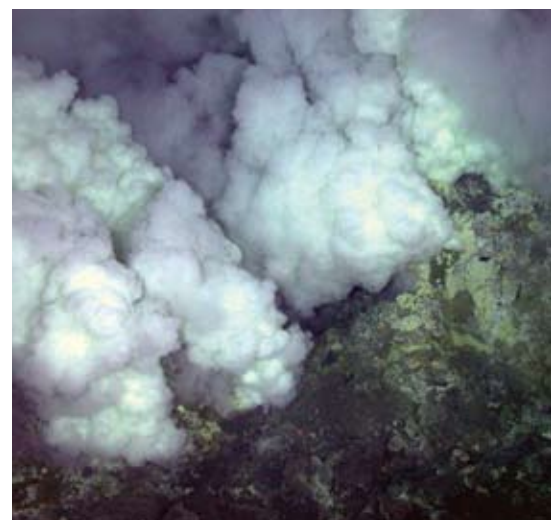
The ambitious Encyclopedia of Life (EOL) initiative was publicly announced in May 2007 to great attention and excitement worldwide. The project, which officially began two months later, spurred by a \$10 million grant from the John D. and Catherine T. MacArthur Foundation and \$2.5 million from the Alfred P. Sloan Foundation, will provide the first-ever online database of virtually all information about species on Earth. The MBL is playing a key role in this endeavor, providing the informatics expertise required to launch and maintain this monumental undertaking. In addition to the MacArthur Foundation and Sloan Foundation funding, we thank the Ellison Medical Foundation for their \$2 million grant to create aging and lifespan portal within the EOL.

The MBL is proud to be one of the EOL's Cornerstone Institutions, a role we share in good company with such notable institutions as Harvard University, the Smithsonian Institution, the Field Museum of Chicago, the Biodiversity Heritage Library, and Missouri Botanical Garden. Personally, I am honored to be a part of the project's leadership in my role as a member of the EOL steering committee and distinguished advisory board. The EOL is a powerful and essential tool that will change the face of biodiversity research, conservation, and education worldwide and will help to catalyze a new MBL research initiative in biodiversity and biodiversity informatics.

Developing a Sustainable Business Plan

In 2007, MBL senior staff and I continued to analyze the laboratory's institutional finances sector-by-sector to better understand and manage our costs. Our objective is not to turn the MBL into a commercial enterprise run by financials or equate scientific performance with profit and loss, but to achieve at least revenue neutrality in each sector and eliminate cash flow deficit in order to invest in capital improvements and reinvest any sector positive balance back into that sector.

With the very able leadership of the MBL's Chief Financial Officer, Homer Lane, and his staff, we have developed a comprehensive operating budget (as opposed to previous practice which only presented facilities and administrative units) and identified nine sectors of operation at the MBL. This substantial undertaking required a ten-fold increase in number of cost centers to be analyzed and projected and involved hundreds of active awards. As a result of this work, we have instituted a new budget process for 2008 that we believe will enhance both our stewardship of funds received and our drive to balancing the operating budget.



*Deep-sea hydrothermal vent chimneys
(M. Kurz, Courtesy of Submarine Ring of Fire
2006 Exploration, NOAA)*

Looking Ahead

The MBL's strategic plan has outlined how to best deploy the laboratory's unique strengths to serve mankind through the development of knowledge in biological sciences. As we pursue this vision, we continue to identify new areas of investment which build upon the existing expertise of MBL scientists and centers to catalyze novel ways of thinking. In addition to developing innovative programs related to the environment and human well being, we are seeking to establish a role for the MBL in the emerging biomedical field of regenerative biology and medicine.

Marine organisms like those traditionally used by MBL scientists hold great promise as research models in this field, particularly as we begin to decode their genomes. This, coupled with our unique infrastructure and outstanding environment for research and education, positions the laboratory as a leader in the field. To support this effort we are working to establish a research program in Cellular Dynamics, a fusion of our existing Molecular Physiology and Architectural Dynamics in Living Cells Programs, that will focus on the biological complexity of cellular processes and expand upon our strengths in imaging and cell biology.

The MBL has never been better positioned to move biology forward and pursuing new areas of investment will enable us to successfully realize the goals of the strategic plan while leaving an indelible mark during a new era of biological discovery. But without resources, we cannot reach the critical mass required to harness the MBL's strengths and truly make a difference.



Marine organisms like the starfish hold great promise in the emerging field of regenerative biology and medicine.

In conjunction with our efforts to develop a sustainable business plan for the MBL's future, in 2007 we engaged the fundraising firm CCS to conduct a feasibility study to assess the MBL's readiness to begin a major fundraising campaign which will be needed to provide critical infrastructure, programmatic and endowment support for new and existing programs. More than 100 stakeholders were interviewed for their input and results were presented to the MBL Board of Trustees last summer. Following the Board's approval, a campaign cabinet comprised of members of the MBL Board of Trustees and charged with charting the course for the campaign, was formed late last year.

Clearly this is an exciting time at the MBL. The laboratory's mission, simply put, is leadership in biological research and education. We intend to protect and nurture all that makes the MBL special, while keeping the institution focused on first-rate science that can be done uniquely or to special advantage at the MBL. I look forward to continuing to share our progress with you as we pursue this goal.

—Gary G. Borisy



E. Armstrong

