



Massachusetts Biotechnology Council

## RIISING TO THE CHALLENGE

2008 ANNUAL REPORT

### FROM THE PRESIDENT

Dear MBC Members:



We as a trade association faced significant challenges in 2008, as the economy took a downward turn and many of our member companies fought to stay afloat. But then we did what our members in the biotechnology industry do best—we got creative, streamlining and honing our programs and services to more efficiently and effectively meet the needs of our members. All the while, MBC remained focused on our mission: to foster a positive environment that enables each biotechnology company to achieve its full potential.

For these reasons, we have entitled our 2008 Annual Report, enclosed here, **Rising to the Challenge**.

In order to continue rising to the challenge in years to come, the MBC expanded in 2008 its membership and thus, grew its contiguous and sustaining foundation. At the close of 2008, MBC records showed 639 organizations to be members, a 10 percent increase on the 579 members at the end of 2007. With this increase came a more expansive network, which allowed MBC to expand its services, programs, events, outreach, and opportunities for involvement.

We are especially proud of the \$1 Billion Life Sciences Initiative that was signed into law a year ago. This policy has and will continue to provide the funding necessary for the Massachusetts biotechnology industry to remain the fastest-growing sector of the state's economy. To complement the work the MBC has accomplished on the state level, we have launched an aggressive Federal Action Plan, which encompasses regular Washington visits by MBC government relations staff to promote a strong agenda outlined in our 2009 Federal White Paper, and a goal to serve as our members' voice on Capitol Hill.

Additionally in 2008, we re-launched our Investors Forum, New England's largest biotechnology investor forum, by connecting our biotechnology companies with disease foundations, patient advocacy groups, government agencies and more traditional venture capital investors. Convening the Investors Forum helped our team focus on what we do best—as we move through the new year of 2009, we believe now, more than ever, in promoting Massachusetts' life science supercluster by collaborating with our partners in industry, government, and academia to create jobs and cures.



Looking forward, the MBC commissioned the 2015 Strategic Report, an in-depth analysis of the challenges and opportunities facing the industry in Massachusetts in the next several years. The report is a roadmap to maintaining our position as the life science leader and will guide MBC's activities as we plan initiatives in 2009 and beyond. We are committed to overcoming the current challenges and focused on a successful future alongside all of our members.

Sincerely,

Robert K. Coughlin  
President and CEO

## COLLABORATION

CONVENING OUR PARTNERS IN INDUSTRY, GOVERNMENT, AND ACADEMIA

### Biotechnology: The Outlook in Massachusetts

In 2008, the MBC Economic Development Team hosted 11 BioLeads meetings. Out of a total of 72 “leads,” or parties interested in opening or expanding facilities in Massachusetts, the MBC played an integral role in bringing and retaining nine company facilities in the Commonwealth. The 9 “wins” include:

#### *New Facility/Renovation Expansions:*

- EMD Serono in Billerica
- Paratek in Boston
- Parexel in Billerica
- Acceleron in Cambridge
- Genzyme in Framingham

#### *Relocations from Out-of-State:*

- OCT-USA (South Korea)
- AGT Bioproducts (The United Kingdom)
- Advanced Medical (Spain)
- Tetragenetics (Ithaca, New York)

Combined, these wins are projected to yield 602 new jobs and result in \$223.75 million in private investment in Massachusetts.

### Massachusetts Life Science Initiative

The MBC has been a leader in both proposing and helping implement policies designed to promote the growth of biotechnology in Massachusetts. Key highlights include passage and implementation of the Life Sciences Initiative (LSI). The \$1 billion ten-year investment has dual top priorities to support growth of novel, breakthrough technologies while keeping the overall life sciences sector vibrant and growing. The MBC has made effective utilization of this measure—with \$500 million in capital spending, \$250 million in grants/financing, and \$250 million in tax benefits—a top policy priority.

In order to best position MBC member companies to take advantage of the programs and incentives rolled out as a result of the LSI, MBC hosted a series of “Take the Initiative” seminars. Presented in conjunction with the Massachusetts Life Sciences Center, “Take the Initiative” events in Cambridge, Springfield, Lowell, Worcester and Fall River allowed more than 250 MBC members an inside look at the LSI and its implementation.

### BioReady™ Communities



Peter Abair, the MBC's Director of Economic Development, at a BioReady™ seminar at AstraZeneca's R&D facilities in Waltham.

The MBC, working with MassEcon and a host of regional-based economic development organizations around the state, inaugurated a statewide BioReady™ Communities Campaign in 2008 to help municipalities best position themselves destinations for biotech laboratory and manufacturing facilities. MBC hosted seven BioReady™ regional seminars that attracted 214 attendees representing 61 municipalities. Eight regional partners served as co-sponsors, and five MBC biotech members served as hosts:

- Andover - **Wyeth\***
- Billerica - **Millipore\***
- Chicopee
- Fall River
- Hopkinton - **Caliper Life Sciences\***
- Waltham - **AstraZeneca\***
- Worcester - **Worcester\***

\* MBC members that hosted BioReady™ seminars in 2008

As part of the campaign, the MBC Economic Development Advisory Group (EDAG) developed criteria to both guide communities in their pursuit of biotech facility opportunities and rate them for “BioReadiness” in order to provide each with a tangible marketing tool. BioReady™ ratings were announced in 2009.

### The MBC “Federal Action Plan”

On the federal level, the MBC has launched an aggressive “federal action plan” that has already had an enormous, positive influence in major debates over a pathway to biosimilars, patent reform, and other key issues. Federal action plan strategies include leveraging strong relationships with members of the experienced, influential, all-majority Massachusetts Congressional delegation; collaborating and sharing full resources with MBC members having a D.C. presence for policy advancement and success; and supporting members of Congress who support biotechnology through assistance with their campaign fundraising efforts.

# INDUSTRY GROWTH

MAKING TODAY'S VISION TOMORROW'S REALITY

## Investors Forum

MBC's Investors Forum is New England's largest biotechnology investor forum, where 145 companies were represented, and 24 company presentations took place in 2008. Nearly 360 individuals attended the Forum.

Company Type		
Biotech/Pharma	121	34%
Financial	72	20%
Disease Foundation	30	8%
Other	134	38%
Total	357	

Attendee Level		
Business Development	15	4%
C-Level	80	22%
Manager	51	14%
Senior Management	86	24%
Other	125	35%
Total	357	

## Pharma Days

Pharma Days were created in 2008 as a venue to harness ongoing biotech and big pharma partnerships and collaboration. Pharma Days bring together decision makers, buyers, and sellers to begin discussions ultimately leading to deals.

Pharma Day features include:

- A highly efficient forum, reducing meeting set-up inefficiencies
- An intimate opportunity for MBC members to meet prospectively with new emerging biotechnology companies
- An opportunity to track companies and speak to companies "under the radar"

Currently, Pharma Days are only open to the MBC membership. To date, the MBC has hosted Pharma Days for Merck, Johnson & Johnson, Pfizer, Eli Lilly, and GlaxoSmithKline.



## Purchasing Consortium

One of the most tangible benefits of joining MBC is the opportunity to save a significant amount of money on products and services through our Purchasing Consortium, which consisted of 10 primary and preferred suppliers in 2008.

### 2008 Updates:

- Total Consortium sales volume from MBC members increased in 2008 to \$65.5 million from \$59.3 million in 2007.
- The number of MBC member companies that used at least one Consortium vendor increased to 423 in 2008 from 379 in 2007.
- The number of MBC member companies that spent at least \$100,000 with Consortium suppliers increased to 131 in 2008 from 125 in 2007.
- In 2008, the MBC took the cylinder/package gases and bulk gas contracts out to bid.

## Committee Meetings

MBC members have an opportunity to network and learn more about their complex, ever-changing field through the Member Committee Meetings. These meetings allow MBC members to discuss and share their ideas, advice, and experiences with the numerous challenges and opportunities that life science companies face every day. Each committee is chaired by volunteers from member organizations, and committee chairs help arrange educational seminars featuring keynote speakers and panels to address a wide variety of current topics.

### Statistics:

- Our 16 committees held a total of 118 meetings over the course of the year.
- A 17th committee, the Security Committee, was formed toward the end of 2008.
- 5,137 member company employees registered to attend the seminars.



# WORKFORCE AND PROFESSIONAL DEVELOPMENT

A FOUNDATION FOR THE FUTURE

## Life Science Talent Initiative (LSTI)

Biotechnology companies continue to report the Massachusetts' life science sector's greatest strength is the current workforce. But employers also express concern with academia's ability to continue to provide enough talent to match the industry's growth. Recent MCAS results and declining interest in Science, Technology, Education, and Math (STEM) majors among prospective Massachusetts college students set an alarming trend. Without significant intervention, Massachusetts faces the risk of not meeting corporate workforce needs due to lack of student interest and knowledge.

According to *Growing Talent*, a workforce report commissioned by the MBC and the Massachusetts Life Sciences Center, Massachusetts needs to increase the pipeline of residents entering both higher education degree programs and careers in the life sciences. To accomplish this goal, the report makes five key recommendations:

1. Produce and retain more graduate students with interdisciplinary training in the sciences, mathematics, business, and legal and regulatory affairs.
2. Strengthen the interdisciplinary curriculum and experiential learning programs in undergraduate education.
3. Improve and target technical training to existing and emerging employer needs.
4. Expand the pipeline of K-12 students motivated and prepared to enter higher education and careers in STEM fields.
5. Improve communication and coordination between the life sciences industry and higher education.

## Cancer Challenge

Working with the American Cancer Society (ACS), the MBC issued an unprecedented \$1.4 million cancer research challenge to life science companies to fund the region's most promising postdoctoral fellowships. The goal of the challenge is to fund 12 three-year ACS postdoctoral fellowships worth \$140,000 each. MBC members AstraZeneca Pharmaceuticals, Novartis Institutes for BioMedical Research, and EMD Serono, Inc. generously stepped forward with the lead commitments to each fund a three-year ACS fellowship.



Representatives from the MBC, ACS, and the Cancer Challenge gather at the Cancer Challenge Symposium in February 2009.

## Annual Golf Classic Fundraiser

The MBC and MassBioEd hosted the 14th Annual Golf Classic Fundraiser at the Stowe Acres and Butternut Farm country clubs on Friday, September 5, 2008. The event raised \$100,000 net revenue. Proceeds from the fundraiser are donated to MassBioEd to support science and biotechnology education in Massachusetts through school programs, workforce training, and lifelong learning. More than 370 golfers attended the event, representing 135 companies.

## MassBioEd Learning Center

Launched in 1994, MassBioEd's Learning Center offers courses, seminars, and in-depth training for biotechnology professionals and the adult public. All courses are taught by industry professionals—ensuring that the workforce pipeline is perpetually sustained.

A total of 171 students participated in programs at the Learning Center in 2008. The Learning Center also introduced two new programs in 2008: Current Good Manufacturing Practices, and Leadership Training for Scientists. Both have been rated very highly and are being offered in 2009.

### Current Courses:

- Biotechnology Project Management
- An Overview of Clinical Research
- Leadership Training Program for Scientists\*
- Current Good Manufacturing Practices (cGMP) Training\*
- Improving Biotech Presentation Skills

\* Programs were introduced in 2008

## BioTeach Expansion

MassBioEd runs BioTeach, an ambitious teacher professional development program designed to support biotechnology instruction and career awareness activities.

Over a six-year period, BioTeach plans to provide professional training for educators in all Massachusetts high schools, so they can access and use biotechnology curricula, expose students and teachers to career awareness activities in the life sciences, partner with schools, government, and local businesses to support scientific curiosity, increase student participation in science, and train some for a career in the life sciences.

For schools receiving the initial BioTeach grant MassBioEd provides:

- Up to \$8,800 in biotechnology laboratory equipment/supplies and consumables in year one, with re-supply of some materials in year 2 and 3.
- A summer professional development workshop with stipends and Teacher Professional Development Points (PDP) certification upon completion
- A winter teacher professional development workshop with stipend and PDP certification
- Visit from the MobileLab for teacher and student lab experience facilitated by BioTeach mentor



As of 2008, teacher professional development training and equipment had been provided to 162 public high schools, including 49 new schools in 2008 alone. Almost \$2 million in equipment supplies and consumables has been awarded, and more than 475 science teachers have received biotechnology laboratory training.

## Life Science Career Development (LSCD) Expansion

In addition to the BioTeach grant program, the LSCD Program supports the development of academic, personal, and employability skills for students pursuing careers in the life sciences at the post-secondary level. This competitive grant has available to schools that have received the BioTeach grant since 2004. The LSCD program works to institutionalize a sustainable, collaborative leadership model involving guidance, administration, and science teachers working together to create this learning environment.

### LSCD Program Goals:

- Develop awareness and excitement about life science careers among students, teachers, administrators, and guidance staff
- Build teams of teachers, guidance staff, and educators that work with life science business and higher education partners
- Develop co-curricular and informal learning models to enhance students' classroom experiences

## Beginnings of the Massachusetts Life Sciences Education Consortium (MLSEC)

The need to better align Massachusetts biotechnology sectors workforce needs with educational institution strategies is well documented, as demonstrated in the afore-mentioned *Growing Talent* report developed by the UMass Donahue Institute:

“Massachusetts needs better communication between life sciences employers, higher education institutions and the workforce training system to ensure that programs and curriculum are relevant to industry needs and to create practical training opportunities for students.”

MassBioEd in conjunction with the MBC formed the MLSEC in response to this report. The new MLSEC will provide a permanent vehicle by which the biotechnology industry, educators, and trainers will address curriculum development, retraining program design, co-ops and internships, and other areas of concern. The consortium will advocate and assist in the development of the premier life sciences workforce through a commitment between the life sciences industry and higher education.