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MASS INSIGHT REPORT OUTLINES VISION FOR NEW MEDICINE HUB; TRANSLATIONAL MEDICINE CENTER KEY TO STATE'S FUTURE

Massachusetts has a world-class life sciences cluster, but global competition, inconsistent collaboration between industry and academia and the lack of a talent strategy threaten the Commonwealth's leadership status, according to a groundbreaking report released today by Mass Insight Corporation's Global Mass 2015 initiative.

The Mass Insight report outlines a concrete strategy to tap the state's knowledge assets, enhance coordination, and develop its talent pool so that Massachusetts can reach its potential and become the world's "New Medicine Capital." Key among those recommendations is the creation of a \$200 million Translational Medicine Center (TMC). The TMC would leverage the Commonwealth's university knowledge base to transform the way life sciences research is done and create jobs in Massachusetts.

The TMC, which could be funded through \$50 million in state grants and matched with \$150 million in private and federal funds, would invest in collaborative research proposals that enhance "bench-to-bed" delivery of new therapies and treatments. The National Institutes of Health (NIH) has made translational medicine a priority through its Clinical and Translational Science Awards program, which will support approximately 60 large-scale research institutions by 2012.

"The fundamentals of drug discovery and development are being transformed by genomic information," said Mass Insight President William Guenther. "Massachusetts has the potential to become home to the next generation of global life sciences companies, but that will happen only through the right investment and expanded collaboration. Since the NIH clearly is moving in the direction of translational medicine, it is critical for the Commonwealth to have a strategic and coordinated approach."

This month, the Massachusetts House released its own version of Governor Patrick's historic \$1 billion state life sciences investment packages that would provide tax incentives to biotechnology employers and invest in industry-university research centers, including one built around the Nobel Prize-winning work of Dr. Craig Z. Mello of the University of Massachusetts. The balance of discretionary funds allocated for collaborative research projects will be distributed by the Massachusetts Life Sciences Center, which will receive guidance from the Life Sciences Collaborative. The ongoing debate on the life sciences legislation provides opportunity for Massachusetts to show it can be a leader in translational medicine.

The Global Mass Life Sciences Working Group, a panel of Massachusetts life sciences academic and industry leaders, has identified the TMC as the highest priority recommendation among the Mass

Insight proposals. The group is co-chaired by Dana Farber CEO Ed Benz and Novartis COO Jeff Elton, and other members include Mara Aspinall, President of Genzyme Genetics, and Mason Freeman, Director of Translational Medicine at Massachusetts General Hospital and Harvard Medical School.

“Massachusetts is uniquely positioned because many of its top medical researchers are practicing clinicians with direct access to patients,” said Elton. “No other region possesses the same blend of top talent, university research capacity and industry and venture capital investment, which is why Novartis has made such a big commitment here. The TMC is the centerpiece of a state strategy to generate more economic opportunity for the region and deliver new life-altering treatments to the world.”

“A translational medicine strategy opens the door for more transformative changes for Massachusetts,” said Benz. “It would break down the walls between institutions and disciplines and it is central to a global talent strategy that can recruit and retain the top researchers from Massachusetts and the world. In terms of state investment and focus, it offers the greatest long term return for the Commonwealth.”

The report, which was produced with pro bono assistance from McKinsey & Co., shows that Massachusetts – with its unparalleled blend of university assets, talent and cross-disciplinary potential – enjoys a strong presence of life sciences investment and job creation. The Commonwealth sets the pace in a wide range of endeavors, from biotechnology and next generation pharmaceuticals to devices, diagnostics, tools and equipment. In addition, many global life sciences companies, including Novartis, Bristol-Myers Squibb and Pfizer, have established operations and created jobs in Massachusetts in recent years.

But the report predicts that Massachusetts will not reach its full job growth potential unless it implements a specific strategy for the life sciences industry based around talent development, innovation and enhanced collaboration between industry, academia, teaching hospitals and government. In addition, Massachusetts faces growing competition from other global clusters – which have lower costs, better collaboration and a more active talent pipeline. The report notes that China, while currently far behind Massachusetts in the quality and quantity of research and commercial applications, will generate 11,000 life sciences Ph.D.s in 2015 compared to 400 produced by Massachusetts annually.

The report identified recommendations to strengthen Massachusetts as a life sciences research hub, develop talent and encourage multi-stakeholder cooperation, including (in addition to the TMC proposal):

- **Create connections with global clusters** - Work to build connections with existing and emerging life science clusters, such as those in New Jersey, the European Union, India and China, under the themes of talent development, healthcare policy and delivery, and local industry development. The Commonwealth needs to build on the progress made by Governor Patrick during his December 2007 China trade mission.
- **Ensure the future pipeline of workers** - Close the mid-level talent gap with targeted investments in community and state colleges and the UMass system, involving industry in curriculum design and awareness-building. In addition, the state must develop K-12 outreach programs to improve the long-term, in-state talent pipeline. Mass Insight is supporting the work of the UMASS/Donahue Institute on filling the state’s pipeline of life sciences workers.
- **Coordinate activities to speed clinical trials** – Massachusetts misses out on clinical trials because of a lack of participants and a lack of communication between hospitals and drug companies. Massachusetts should reform its process for conducting clinical trials by boosting

recruitment efforts of clinical trial participants and streamlining the hospital review and approval process for new trials.

- **Create cross-sector collaboration** – Massachusetts has a diverse economy, with strengths and IT and other disciplines that can be applied to the life sciences sector. For example, the report recommends creating a digitized tissue bank, which will enable researchers to better access tissue samples from other institutions and also create business opportunities for area IT firms.

Mass Insight Corporation and its partners have convened **Global Massachusetts 2015**, a leadership initiative to create a sector-based vision for economic success in key and emerging industry sectors over the next decade. The Global Mass 2105 goal is to build consensus on a global talent and economic development agenda that will make Massachusetts a world leader in R&D, while bringing economic opportunities and good jobs to the entire state.

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