

Una Ryan

An accomplished scientist and entrepreneur, Ryan has lobbied the Massachusetts state legislature to entice it to adopt measures to stimulate biotech.

Una Ryan, the president and CEO of AVANT Immunotherapeutics, and a recipient of the Order of the British Empire for contributions to biotech, began life fleeing World War II chaos in southeast Asia with her mother. “We got out of Singapore on a large ship that was torpedoed off the Indian coast,” she says. Her father was imprisoned by the Japanese, and returned home after five years virtually unrecognizable. But though Ryan hadn’t seen him since infancy, she picked him out of a crowd the moment he stepped back on British soil.

From those inauspicious beginnings, Ryan rose to become one of biotech’s leading figures, widely credited with raising the field’s stature, particularly in Massachusetts, where she now lives. Thomas Finneran, president of the Boston-based Massachusetts Biotechnology Council (MBC), a trade group, says, “She’s a rock star. I’ve always been impressed by her ability to describe the big picture of how biotech contributes to the state, and what the opportunities from it could be if public leaders committed themselves to certain courses of action.”

After completing her PhD in zoology at Cambridge, UK, in 1967, Ryan took a job at the University of Miami, as a Howard Hughes Investigator working to localize angiotensin-converting enzyme. She eventually landed a ten-year Merit Award, given by the National Institutes of Health to support open-ended research by superior scientists. Ryan took the grant with her when she left Miami in 1990 for St. Louis, Missouri. There, she took on joint positions as professor of surgery at the Washington University School of Medicine, and director of health sciences for Monsanto. Her Midwestern stint lasted just four years.

With her interest in biotech growing, Ryan was recruited by T-Cell Sciences, a Cambridge, Massachusetts-based company that embraced her goal to unite vascular biology and immunology in the search for immunotherapeutic drugs. T-Cell Sciences subsequently acquired Virus Research Institute to form AVANT Immunotherapeutics. Ryan has since raised more than \$135 million in capital and propelled AVANT to the cutting edge of vaccine research (*Nat. Biotechnol.* 24, 371–372, 2006).

Finneran claims that after the tech downfall of the late 1990s, Ryan—who at the time was on MBC’s board—pushed the public and state legislatures alike to back life sciences as engines for economic growth. “She stepped into a void,” he says. “The state was going through an identity crisis, and she developed a focused plan to make sure our life science advantages were fully exploited.”

As a board member with the MBC, which she recently chaired, and the Washington, DC-based Biotechnology Industry Organization, Ryan pushed the state legislature to adopt an economic stimulus package that provides grants and low-interest loans to mid-level biotech firms. Ryan stresses that even though Massachusetts brims with biotech talent, the state does a poor job nurturing embryonic firms through more advanced stages of growth. “We’re good at spawning babies but if you look at the end of the value chain we’ve really only got two grownups: Genzyme and Biogen,” she says. “I want Massachusetts to treat teenage companies better, so we’re working to improve the tax and permitting environment here. Ultimately, we want to create manufacturing plants without going through a legislative nightmare.”

Part of that strategy has been to lure political forces with strong state-house connections to the MBC. Finneran, for instance, was the former Massachusetts Speaker of the House. In a recent success story, Finneran

and Ryan convinced Bristol-Myers Squibb to build a new \$1-billion-dollar manufacturing plant at the former site of the Fort Devens US Army Base, near Worcester. Ryan says the emergence of this new plant could signal that Massachusetts encourages manufacturing in addition to biotech innovation. Under Ryan’s direction, AVANT chose to base its new manufacturing plant in Fall River, Massachusetts.

Lawrence Wittenberg, who cochairs the Life Sciences Practice Group at Goodwin and Proctor, a law firm with offices in Boston, agrees pushing biotech is necessary. Top-flight hospitals and universities help make Boston an epicenter for biotech, Wittenberg says. But the state’s archaic permitting structure can deter biotech firms from establishing a manufacturing presence there, he adds. “You never know what’s going to hit you,” Wittenberg says. “In other states, permitting can take 60 days, but here it can take a year, and the whole process can seem adversarial. So, I think one of the best things we can do is remove barriers in this area, and I think Ryan and the MBC have moved that agenda forward.”

One of the barriers to biotech growth, according to Mark Bamforth, a senior vice president at Genzyme Corporation, is the high cost of doing business, particularly in and around Boston and Cambridge. Housing and employee costs deter some companies from expanding in

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Massachusetts’s urban hub, he says, but smaller towns located farther afield offer cost advantages that companies might find attractive, thus allowing them to remain in Massachusetts for the long haul. “And Una really voted with her feet by having her company invest in Fall River,” he says.

Meanwhile, Mark Leuchtenberger, president and CEO of Therion Biologics in Cambridge, Massachusetts, says that the state has traditionally been viewed as a high cost, highly unionized place that’s bad for business in biotech. Ryan and the MBC, he says, need to work on keeping legislators and the public engaged during the long years it can take to bring a product to market. “There’s always a lot of love and excitement bestowed on new ideas in biotech,” he says. “The trick is to keep people from losing interest during product development. We need education here, and that’s where people like Ryan can really play an important role.”

For her part, Ryan says business barriers need to be eliminated so that biotech can accomplish its real mission, which is to save lives. “We need funding and we need procurement mechanisms to make sure there’s a market for our products at the end of the day. We need to protect young companies from lawsuits so they don’t get slaughtered during clinical trials. And we need to address the huge risk and costs firms absorb midway in their development,” she concludes. “No one’s going to get into this business if they don’t think they can make it.”

Charlie Schmidt, Portland, Maine