Rhode Island Biotech And Life Sciences Plan

Prepared by: Damon Cox
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EXECUTIVE SUMMARY

The Biotech and Life Sciences industry is growing at an extraordinary rate with industry valuation projection estimates exceeding $1 trillion by 2030. Technology is revolutionizing drug development, medical device design and the way we diagnose and treat diseases. The rapid advances in Artificial Intelligence, Machine Learning and Quantum Computing capabilities promises even faster growth by way of improving data analytics and exponential computing power resulting in improved health and quality of life for all.

With over 400 Biotech and Life Sciences companies and organizations currently in Rhode Island, there is a solid foundation to expand upon. The opportunity to fortify the talent pipeline starting from kindergarten through twelfth grade (K-12) by way of supporting STEM curriculums in schools is key component to growing the sector. In addition, the chance to be supportive of more Women and BIPOC start-up founders, and to work to increase participation rates of African-Americans and Latinos within the innovation space, which is something the innovation economy struggles with, has never been greater. Rhode Island can embed this inclusive approach into the very fabric of the ecosystem, at every level, as it grows.

Given the advantageous geographic location of Rhode Island, the state is well–positioned to establish its own unique identity as a Life Sciences leader. Nestled between the Biotech and Life Sciences powerhouse of Massachusetts and the economic titan of New York City, Rhode Island possesses assets such as a strong economy, academia, industry and the political will to succeed. With time, infrastructure investments, and great leadership, the current disparate nature of the industry in Rhode Island can grow into a productive, collaborative and prosperous destination for Biotech and Life Sciences companies.

Even with the existing assets in the state, there are certain missing elements which prevents Rhode Island from reaching its full potential in Biotech and Life Sciences. There is a leadership void in the sector for an organization that would serve as a connector and convener specifically for Biotech and Life Sciences. In Massachusetts, there is the Massachusetts Life Sciences Center (MLSC), and the industry facing organization MassBio. In Rhode Island, there is the MassBio equivalent, RIBio. However, RIBio is grossly underfunded and understaffed and is in need of more state support to build its capacity. RIBio working collaboratively alongside a newly created, quasi-public agency would be the tools necessary to develop a dynamic Biotech and Life Sciences ecosystem.
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The MLSC is a quasi-public agency funded by the Commonwealth of Massachusetts but governed by a Board of Directors. This $1.5 billion investment created by MA Governor Deval Patrick (D) (6/08-6/18), and reauthorized by his successor, Governor Charlie Baker (R) (6/18-6/23) was established in 2008. The express purpose of the MLSC is to “expand life sciences-related employment opportunities in the commonwealth and to promote health related innovations by supporting and stimulating research and development, manufacturing and commercialization in the life sciences.” In some instances, MLSC-supported investments have outperformed the overall Massachusetts life sciences ecosystem in areas such as job growth, creation of infrastructure such as research facilities, lab space, cutting-edge equipment, and incubators, patent activity and commercialization and clinical trials.

Using the MLSC as a model of how government can effectively play a constructive and non-intrusive role in strengthening the ecosystem by collaborating with industry and academia to produce a thriving community of practice, we propose the creation a Rhode Island equivalent. The Rhode Island Biotech And Life Sciences Hub (RIBLSH), like its Massachusetts cousin, would focus on creating innovation capacity and would be charged with investing in both sound science and good business. This entity would strengthen Rhode Island’s life sciences position, accelerate commercialization, create jobs and drive economic development across the state. This newly forged agency along with an industry facing partner organization like RIBio would be key in turning the cluster of activity currently in Rhode Island into a vibrant ecosystem. An initial 2 year $50 million commitment would serve as adequate funding for operations and tools (this includes $30 million for a fund $17 million for grants) to help companies grow and create jobs.

RIBLSH Annual Operating Budget ($1.5 million)
President - $300k
Chief of Finance - $250k
Head of Business Development - $250k
Head of Programs - $175k
Administrative Support - $115k
Outsourced Services* - $415k

*Legal counsel, marketing and communication can initially be outsourced
WORKFORCE DEVELOPMENT

Training future Life Sciences workers for high, middle and lower-skilled jobs in the field is critically important. These jobs pay considerably higher, around $90k on average, compared to the median salary of $70k, but largely require a considerable amount of specialized training. Taking into consideration workers with transferable skills and upskilling those workers to fill roles in bio-manufacturing and other jobs within the sector, a talent pipeline starts to form. RIBLSH would operate a portfolio of programs designed to support the development of Life Sciences talent in the state.

Collaborating with institutions of higher learning as well as K-12 schools in the region will be necessary to supply the workforce to power the industry. The more talented and numerous the workforce, the more attractive the region will be for companies to relocate and to see potential in growing their companies within the state. While Brown University and University of Rhode Island have advanced fields of study and Tech Transfer programs for commercialization, Rhode Island College and Community College of Rhode Island offer an array of credentialing and certification programs in various fields. Rhode Island College in particular has new leadership in Jack Warner, and they can play an integral part in working with RIBLSH to strengthen the Life Sciences workforce pipeline.

By way of deploying grants, RIBLSH can help establish state-of-the-art training facilities at public and vocational-technical high schools and help to provide infrastructure upgrades in community colleges and four-year colleges and universities throughout Rhode Island.

Grant Programs:

STEM Grant Program For Equipment and Supplies – For grades 7-12 to increase STEM education achievement and awareness.

High School Apprenticeship Program - Paid internship opportunities for high school students.

Internship Program - A workforce development program focused on enhancing the talent pipeline for Rhode Island companies engaged in Life Sciences.
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INVESTMENT FUND

A natural place for the RIBLSH to be housed and eventually spun off from is Rhode Island Commerce (RIC) and the RIBLSH would be reliant upon various tools that are currently deployed from the RIC. Tax Incentives offered by Rhode Island Commerce in the form of, the Qualified Jobs Incentive Tax Credit, the Rebuild Rhode Island Tax Credit, and the Tax Increment Financing have already proven successful. With RIBio and RIBLSH sourcing deals and RIC executing them, this trifurcated strategy will go a long way in enabling growth in the sector.

Another tool that stakeholders have been asking for is a fund. This $30 million fund would support early-stage companies scale and attract talent and create jobs. The fund would be facilitated and distributed by RIBLSH, and all investments would be approved by a Board of Directors.

The fund manager would answer to RIBLSH leadership and be responsible (along with the BOD) for all investments. The individual leading this fund should have extensive experience (over a decade) investing and have a deep understanding of the sector. An understanding of the public sector would be helpful but not required.

Guidelines for RIBLSH Investments

Strategic and well-chosen investments by the state should be highly leveraged to serve as a magnet for private investment

Investment based on a competitive process promotes the relative best use of public dollars entrusted to the RIBLSH

DEI should be a factor when considering investment

Funding and Incentivizing new models of partnership and collaboration

Funding priorities should be based on a market driven vs. “top down” approach

Public sector investments should be highly leveraged to serve as a magnet for private investment
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RIBLSH LEADERSHIP

The RIBLSH will be a quasi-public agency, governed by a board of directors (BOD) comprised of various professions from within the sector. Therefore, the choice for leading the organization should not be one of a political nature, but a choice made by the board. Understanding that Rhode Island Commerce, a quasi-public agency itself, would choose the BOD, the choices for board members would not be political in nature and this can be stated in the legislation associated with the establishment of the RIBLSH. The leader should hold the title of CEO or President instead of Executive Director to align better with industry. This individual would essentially be an ambassador for Rhode Island and the sector and would need experience and/or knowledge of how both industry and government operates separately and in collaboration. A projected salary for that caliber of talent should come in the range of $220k-$250k annually and include a bonus structure.
RIBio - Rhode Island Bio

An effective industry facing organization is crucial to strengthening the Life Sciences industry in Rhode Island. In Massachusetts, MassBio has proven to be an important force for business development and the continuing growth of the industry. RIBio is designed to serve the same function in Rhode Island, but languishes due to a lack of funding.

RIBio has been largely funded by Rhode Island Commerce, but that funding has been relatively small given the void the organization has had to fill. Currently, RIBio has an annual operating budget of $350k - with 1 full-time employee, Executive Director Carol Malysz, and an individual in a part-time capacity as an entrepreneur-in-residence. Increasing the budget to $2 million will set it on the path to effectiveness and show the market Rhode Island means business when it comes to Biotech and Life Sciences.

$1 million will be used to hire additional FT and PT staff to build the organization's capacity, and the remaining $1 million will be deployed in the form of small grants to eligible recipients (schools, non-profits, etc) for program support.

RIBio Annual Operating Budget ($2 million)
Executive Director - $200k
Head of Programs - $150
Head of Memberships - $150k
Administrative Support - $125k
Outsourced Services* - $375k
Grants - $1 million

*Legal counsel, marketing and communication can initially be outsourced
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Conclusion

Creating the RIBLSH and strengthening RIBio can be the pathway forward to realizing a shared vision by all of the Biotech & Life Sciences stakeholders in Rhode Island. Current outstanding EDA funding could be a source of support for bringing this vision to fruition. This New England effort, with Rhode Island Commerce, the University of Rhode Island and Brown University as partners alongside Northeastern University and the state of Maine, is specifically targeting innovation and aligns with the Biotech and Life Sciences sector work.

Rhode Island is a unique ecosystem with its own set of strengths and weaknesses. There is industry activity from within the state, and exceptional academic and start-up activity that Massachusetts entities such as MassChallenge, CIC (Cambridge Innovation Center) and Innovation Studio determined it was good business to establish a presence in the state. The glaring absence of a leading organization spearheading messaging and interfacing with local and out-of-state companies is noticeable -- but not insurmountable.

Rhode Island is ready to grow Biotech and Life Sciences businesses within the state!
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With gratitude to the following stakeholders:

Hilary Fagan
Rhode Island Commerce
Hilary.Fagan@commercerci.com

Neil Veloso
Brown Technology Innovations
neil_veloso@brown.edu

Russel Carey
Brown
Russell_carey@brown.edu

Israel Ruiz
Brown (Consultant)
iruiz@alum.mit.edu

Aidan Petrie
NEMIC / NEMIC Foundation
apetrie@nemicenter@gmail.com

Katharine Flynn
University of Rhode Island
khflyn@uri.edu

Carol Malysz
RiBio
carolmalysz@ri-bio.org

Annette Tonti
RiHub
atonti@rihub.org
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Workforce Development

STEM Grant Program For Equipment and Supplies - enables the purchase of equipment and supplies for high schools and middle schools to train students in life sciences technology and research, as well as addresses a funding gap in capital dollars for public and not-for-profit workforce training and educational institutions. This program would also seek to increase student achievement and student interest in STEM (Science, Technology, Engineering, and Math), as well as support the implementation of state STEM standards. The program also offers funding for teacher professional development to ensure that all institutions receiving grant funding have teachers that are trained to use the equipment and have access to curricula that deploys the equipment in labs.

High School Apprenticeship Program - facilitates and funds paid internship opportunities for high school students throughout the Rhode Island. The program would also offer after-school lab training programs for select schools during the spring that aims to better prepare students for summer internships.

Internship Program - A workforce development program focused on enhancing the talent pipeline for Rhode Island companies engaged in Life Sciences. The program would create hundreds of new internship opportunities for college students and recent graduates by enabling small Life Sciences companies to hire paid interns. The program would connect employers with prospective interns and reimburse eligible companies for intern stipends. This program would expand the pool of prospective employees who have practical experience, increases opportunities for mentoring, and enables more students from across the state to explore careers in Life Sciences.

RIBio

Increase budget from $350k annually to $1 million to build capacity.

Staff:
Executive Director - FT
Program Director - FT
Membership Director - FT
Marketing - PT
Administration - PT
Appendix

Tax Incentives

Qualified Jobs Incentive Tax Credit
By expanding their workforce in Rhode Island or relocating jobs from out of state, companies can receive annual, redeemable tax credits for up to 10 years with the Qualified Jobs Incentive program. Credits can equal up to $7,500 per job per year, depending on the wage level and other criteria. The minimum number of new jobs needed to qualify varies by industry and company size, but can be as few as 10. The first 500 jobs approved under the program will receive the maximum credit available.

Rebuild Rhode Island Tax Credit
Rebuild Rhode Island can fill financing gaps in real estate projects with redeemable tax credits covering up to 20% – and, in some cases, 30% – of project costs. Commercial office, industrial, residential, mixed-use development, ground-up construction, and historic rehab can qualify. A minimum project cost of $5 million and certain square footage/project size minimums may apply. Approved projects can also be exempted from sales tax on construction materials, furnishings, and equipment.

Tax Increment Financing
Tax increment financing provides capital for eligible projects by rebating a portion of the new state tax revenue generated by the project. An eligible project must demonstrate need through a “financing gap.” The tax revenue rebate may not exceed 30% of total project costs (there’s an exemption for public infrastructure/utilities) or 75% of incremental revenue generated.

RIBLSH Board of Directors Composition

State Economic Development Chief
State Finance Chief
Rhode Island Commerce Chief
Academia Representative (rotating)
CEO of a Life Sciences Company based in Rhode Island
Researcher involved in the commercialization of biotechnology, pharmaceuticals or diagnostic products
Physician licensed to practice medicine in Rhode Island and the President or senior administrator of an academic medical center
A person with financial expertise in the Life Sciences