

Annual Meeting: Advancing Science, Improving Lives

Carol Malysz, Executive Director & RI Bio Board of Directors

carolmalysz@ri-bio.org | 401.400.5499 | ri-bio.org



Meeting Agenda 9:30 - 11:00 am

RI Life Sciences Ecosystem/RI Bio Progress – Carol Malysz, Executive Director, RI Bio

Reflections on Life Science Progress – Patrice Milos, PhD, RI Bio Board Chair

Remarks on Scientific Advancement & Future Direction– Jaimy Mauricio – Incoming Board Chair



As the state affiliate of the world's largest biotech advocacy organization,



RI Bio's mission is to grow the life sciences economy in Rhode Island & Southeastern New England

RIBIO LEADERSHIP & BOARD



Carol Malysz, MBA Executive Director RI Bio



Guy Asadorian

SVP and Private Client

Advisor, Bank of America

Private Bank



Michael Elliott, MBBS,
PhD, FRCAP
Physician-Scientist, Drug
Developer, Early-Stage Life
Science Investor



Margaret Farrell, JD
Partner, Hinckley Allen



Michael Katz, PhD
Life Sciend Advisor,
Itellectual Propoery &
Economic Development



Jamy Mauricio, MBA Senior Director Financial Planning & Analysis, Intellia Therapeutics, Inc.



Dom Messerli, MBA CEO, Lenoss Medical



Patrice Milos, PhD RI Bio Board Chair Senior Advisor



President & CEO,
Rhode Island Quality
Institute



Jeff Vallerga
Vice President, Business
Development, BIO Business
Solutions



Michelle Wu, MSCEP
Medical Device Leader
Management Consultant,
Wu Consulting

RIBIO TEAM











Stacey Carter, Training Director – Project Management Essentials, Advanced Project Management & Reskilling Training

Kristie Stark - Creative/Art Director

Martha Langer – Biotech Boot Camp Training Director Diane Sterrett – Content & Creative Strategist

Elizabeth Atalay – Social Media Director

INTERNS



Kiley Flynn Providence College



Ana Rodriguez
Providence College



Samantha Martin Providence College



Giada Gloria Catholic University



Life Science Advisors

Ed Bozzi, PhD – URI Biotech Professor (ret.)
Robert Bouthillier – CEO/Co-Founder, PrO2 Health
Leonard Buckbinder, PhD – Scorpion Therapeutics
Chesley Chen– Principal, Life Sciences,
CliftonLarsonAllen

Moses Goddard – Life Sciences entrepreneur Geraldine Harriman, PhD – Co-Founder/CSO, Hot Spot Therapeutics

Scott Keeley – Patent Agent, Keeley DeAngelo, LLP Sean Marnane – Director of External Manufacturing & MSAT, Be BioPharma

Brian Morley – Founder, Emerge RI RJ Panzo – Sr. Director Scientific Operations, Breakthrough Properties

James Pierce, PhD - ED Process Development., Amgen

John Thompson, PhD – Principal Application Scientist, Nabsys

Michelle Wu – Fractional COO & Medical Device Consultant, Wu Consulting

Legislative Committee

Joni Arvi – Director, State Govt Affairs, Bristol Myers Squibb

Martha Auster – Regional Director, Govt Affairs, Vertex

Caitlin Beresin - Director, US State Affairs, J&J Stephen Burm - Director, State Govt. Affairs, NE Region, BIO

Ashley Calabrese – Associate Director, State Govt Affairs, Novartis

Will Farrell – Contract Lobbyist, RI

Chris Kent – Sr. Mgr., State Govt Affairs Northeast, Amgen

Matt Meehan – Director, State Govt Affairs, Pfizer Dmitri Siegel – Director State Govt Affairs, Alliance Development, Bristol Myers Squibb



COMMUNITY PARTNERS



































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RIBio

RI'S BIOSCIENCE ECONOMY

5773

Number of Biotechnology Workers 666

Number of Biotechnology Companies & Organizations \$95k

Average Annual
Salary of a
Biotechnology
Employee

31%

RI's Health & Life Sciences Industry Concentration is 31% higher than the national average Number of Institutions in RI Collaborating on Neuroscience

Research
(Brown, URI, Lifespan, Care NE and Providence VA)

RI LIFE SCIENCE POINTS OF DISTINCTION

Rhode Island has state-wide excellence in:

- Neuroscience
- Medical Devices & Technologies
- World Class Biomanufacturing Facilities

AMGEN

Cell & Gene Therapies









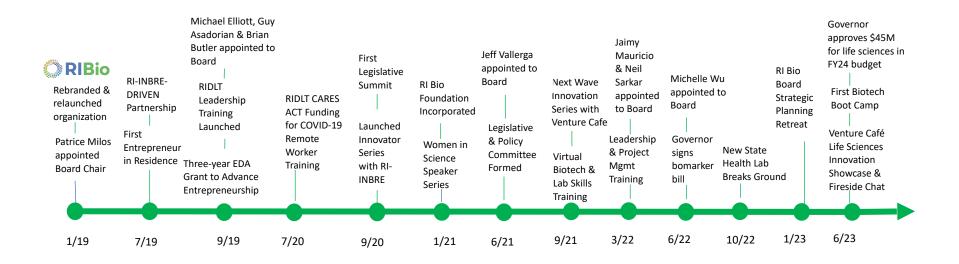






- Our Mission is to grow the Life Sciences economy in Rhode Island & Southeastern New England
- Offer entrepreneurial resources & support to grow new enterprises
- Develop the workforce & grow jobs
- Build enabling infrastructure to support new company creation
- Provide access to capital to support new venture development
- Advocate for our industry at the local and national level
- Make life sciences accessible to all

KEY ORGANIZATIONAL MILESTONES





Significant Progress | ADVANCING ENTREPRENEURSHIP

Pro bono advisory services to more than 188 life science startups. Featured more than 70 life sciences entrepreneurs who have innovated their way from lab to market





> 188
STARTUPS
SERVED











Significant Progress | WORKFORCE DEVELOPMENT

More than 450 incumbent workers, individuals in transition and new hires were trained through RI Bio programs









Blue Cross Blue Shield

















Significant Progress TALENT PIPELINE Our Introduction to Biotechnology and Developing Lab Skills courses are free for all RI Islanders to gain hands-on experience and explore family-sustaining careers in the life sciences



Graduates Sedes Nhar, Richardo Mayorga & Olayinka Olasanoye

- · Learn sought-after skills
- · Receive job coaching & job search help
- · Meet with employers looking to hire right away
- · Course includes a FREE laptop

Job Fair with companies looking to hire Boot Camp graduates!



Significant Progress | INVESTMENT



Slater Technology Fund launched RightHill Ventures in 2022 to provide seed-stage capital and other startup support targeting university research-driven ventures and founders



\$1.5 Million pre-seed convertible note financing \$1.8 Million NIH Small Business grant



\$4 Million Series A1





\$375,000 Slater investment

Significant Progress | ADVANCING WOMEN IN SCIENCE

Our Women in Science series is designed to educate, empower and inspire women to advance as leaders and change agents and has featured more than 35 women leaders in Rhode Island and beyond



Significant Progress | LEGISLATION & ADVOCACY

Legislative Committee Goals:

- Helping RI Bio weigh in on legislation that affects the industry
- Working successfully with the RI state legislature
- Fostering relationships with industry patient advocacy groups
- Elevating the profile of the RI life sciences industry/RI Bio















Significant Progress | MEMBERSHIP DEVELOPMENT

From zero to > than 224 life sciences member companies & organizations in 4 years















































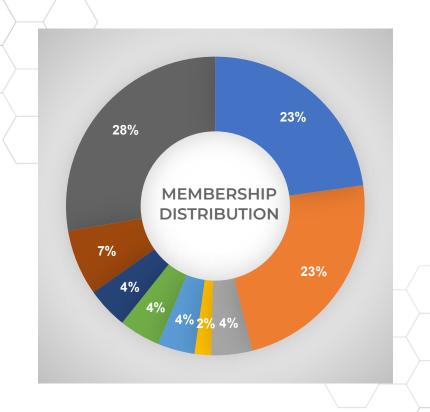






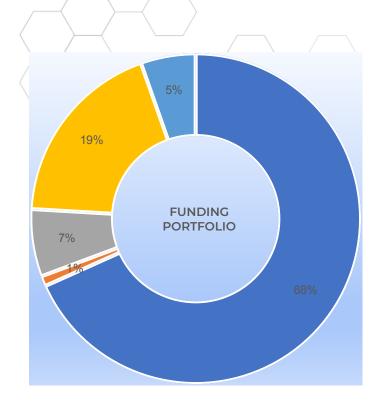


Significant Progress | MEMBERSHIP DEVELOPMENT



- >5 Corp (23%)
 - 5-49 Corp (24%)
 - 50-199 Corp (4%)
- 200-499 Corp (2%)
- 500+ Corp (4%)
- Academic (4%)
- Service Providers (4%)
- Students (7%)
- Individuals (28%)

Significant Progress | SUSTAINABILITY



- Grants, \$345K (68%)
- Individual Giving, \$2K (1%)
- Membership, \$33K (7%)
- Bio Business Solutions \$93K (19%)
- Sponsorships \$27K (5%)

Significant Progress | SUSTAINABILITY

Over the next three years, RI Bio will advance on the path of self sustainability as membership, sponsor income and individual giving grows to 50% of the total annual budget

Key to Sustaining: Growing Members (companies, organizations, service providers, individuals) Sponsors & Philanthropic contributions



Significant Progress | RHODE ISLAND LIFE SCIENCE HUB

Governor's FY24 Budget -\$45M to Grow the Life Sciences Sector

State investments will support:

- Entrepreneur and Business Resources
- Workforce Development
- Space & Infrastructure



\$45M for Life Sciences in Governor's FY24 Budget The life sciences sector is experiencing major growth, and I am very excited about Rhode Island's potential to become a hub for this sector."

RI House Speaker - K. Joseph Shekarchi

Continued Progress | ADVANCING SCIENCE, IMPROVING LIVES

- Advance the convergence revolution in biopharma, digital health, medical devices and engineering
- Support the efforts of our new RILSH & all of our community partners in building our ecosystem
- Ensure success for Wexford/CIC & RIDOH Health Lab
- Provide companies with investment capital, resources, incentives, infrastructure and community support to grow
- Business attraction evolves naturally from Life Sciences initiatives, growth and visibility
- Make certain that everyone across the state has equal opportunity to work in Life Sciences and that diversity and opportunity become synonymous with our industry

BIO 2024 Annual Convention





Thank you!

Carol Malysz Executive Director, RI Bio

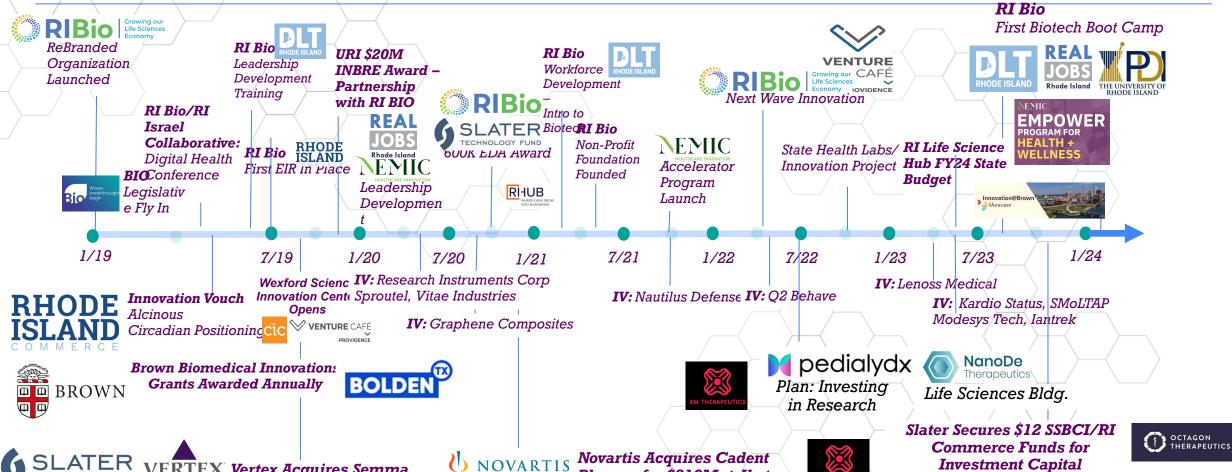
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Annual Meeting: Reflections on Life Science Progress

Patrice M. Milos, Ph.D. – Board Chair

Highlights: RI Life Sciences Ecosystem Jan 2019 - Present



CADENT

Therapeutics

Vertex Acquires Semma

Therapeutics for \$1B







RI BIO I Annual Meeting I February 15th, 2024

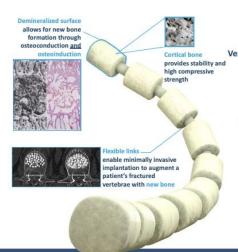
MEDICAL

\$560M

Pharma for \$210M, + Up to

Belief in Our Ecosystem: LENOSS





OsteoPearl

Vertebral Body Augmentation (VBA) solution

Placing Natural bone where New bone Is needed most.

RI Company Founded: 2017

First In-Human Pilot Surgery: 2019

Cherrystone Investment: 2020

Slater Investment: 2021

Right Hill Ventures Series A Investment: 2023

RI Commerce \$50K Innovation Voucher/Brown University: 2023

NIH Submission Brown w/Lenoss Medical: 2023



Achieved <u>50 Patient Surgeries</u>: 2024

KOL Presentation: American Academy of Orthopedic Surgeons



Making a Difference in Patient's Lives TODAY

Dom Messerli, Founder/CEO RI Bio Board Member **NEMIC EIR**

A Glimpse to the Future: RI Life Science Hub



Rhode Island Biotech And Life Sciences Plan



Prepared by: Damon Cox

Pushing to make RI a life science hub, Shekarchi proposes state agency to invest in biotech industry



Published 3:56 p.m. ET May 19, 2023







House Speaker K. Joseph Shekarchi is proposing a new quasi-state agency to promote and invest in the biotechnology industry.

2023 -- H 6426

LC003031

OF RHODE ISLAND STATE

IN GENERAL ASSEMBLY

JANUARY SESSION, A.D. 2023

AN ACT

RELATING TO HEALTH AND SAFETY -- THE RHODE ISLAND LIFE SCIENCE HUB ACT

Introduced By: Representatives Shekarchi, Blazejewski, Ackerman, Solomon, Edwards, Kazarian, Hull, and Baginski Date Introduced: May 19, 2023

Referred To: House Finance

\$45M Investment to Support Life Sciences Hub

Partnerships Across Ecosystem Including: Commerce, RI Bio, NEMIC, Universities, Hospitals, Life Science Companies



Neil Steinberg, Board Chair



We Have Come So Far...
With Much Appreciation to
Carol Malysz, Staff and Fellow
Board Members



Annual Meeting: Scientific Advancements & Future Direction

Jaimy Mauricio RI Bio Board of Directors

February 15, 2024



+25 Years as a Rhode Island Resident – (lifelong New Englander)















Chemical Engineer gone awry into Finance for last 19 Years





• 3rd Year as RI Bio BOD Member



- Passionate about:
 - New England Sports
 - Family
 - Life Sciences in RI











SPECIAL THANKS TO OUR TEAM!











Carol Malysz, Executive Director

Stacey Carter, Training Director – Project Management Essentials, Advanced Project Management & Reskilling Training Kristie Stark – Creative/Art Director

Martha Langer – Biotech Boot Camp Training Director

Diane Sterrett – Content & Creative Strategist

Elizabeth Atalay – Social Media Director



RI Bio Mission and Strategic Goals

Grow the Life Sciences Economy in RI & Southeastern New England

RI Bio is the trade group and singular voice of southeastern New England's life sciences. We advance the industry through education, collaboration and advocacy.



Access to Capital



Entrepreneur Resources



Develop Workforce & Grow Jobs



Enable Infrastructure



Advocate for the Industry



Help Make Life Sciences Accessible to All

Tremendous Momentum Heading Into 2024

2023 RI Bio Key Achievements

- Leadership Skills and Advanced Project Management Training
- Increased awareness of CORES RI directory where researchers can easily search for instruments and services and directly
- Two new advisors appointed to RI Bio Life Science Advisory Council (Sean Marnane Be Biopharma RJ Panzo, Breakthrough Properties)
- Monthly Women in Science Series, helping to increase women's representation in life sciences
- First-ever two-week intensive Biotech Boot Camp with training partners URI Pharmaceutical Development Institute (PDI) and Skills for Rhode Island's Future
- Record-breaking 20,000+ people attended BIO International annual convention in Boston (June)
- RI Bio joined "Lessons from Other States: How to Grow a Life Sciences Ecosystem & Stay Competitive" at Bio ME Annual Event (Sept)
- Governor's FY24 budget approved with \$45 million RI Life Science Hub investment (RILSH)
- Life Sciences Innovation & Showcase Fireside Chat with RI Bio and RILSH Board Chair, Neil Steinberg

2024 Will Be Another Busy and Exciting Year for Life Sciences in RI!!



Building Our Economy for the Future



House Speaker K. Joseph Shekarchi, Neil Steinberg, and Governor Dan McKee

13 The Boston Globe

Could Rhode Island become New England's next life sciences hub?

"facilitate the development of medical advances and scientific breakthroughs" by forming a new group that would "fund and incubate Rhode Island-based life science companies"

House Speaker K. Joseph Shekarchi on introduction of the RILSH Act

"we made a \$45 million life science investment to help attract biotechnology companies from around the world"

"I said that Rhode Island was ready to become a leader in the life science industry. Today's announcement brings us one step closer to reaching our full potential in this growing field"

Governor Dan McKee's Remarks on Appointment of Neil Steinberg as RILSH
Board Chair
October, 2023

RI Bio is Well Positioned to be a Strong Partner to the RILSH Initiative



Positive 2024 Expected for Life Sciences

Biotech IPO window will 'gradually FIERCE reopen' in 2024 as M&A remains 'healthy': PwC



By James Waldron • Dec 14, 2023 9:39am

THE WALL STREET JOURNAL.

Biotech Acquisitions Heat Up, Giving Venture Capitalists Hope for 2024

Recent acquisitions of small drugmakers are giving biotechnology venture capitalists hope for stabilization in their industry following two years of declining investment.

By Brian Gormley

January 11, 2024 ② 3 min read

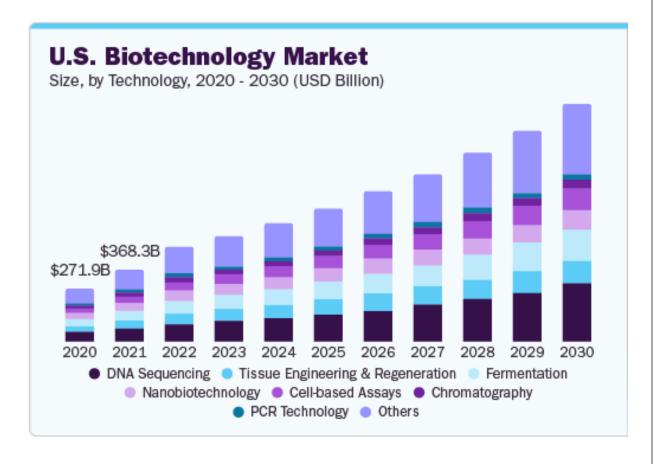
Forbes

Five Major Themes From The 2024 J.P. Morgan Healthcare Conference Juergen Eckhardt Jan 16, 2024,

- Most are expecting that access to capital will be easier this year
- headwinds still face biotech & pharma companies from a range of challenges, including sustained high interest rates, ongoing geopolitical tensions, and the Inflation Reduction Act
- Artificial intelligence is the talk of the town, but it's still early days
- The famous GLP-1s (the blockbuster weight loss drugs including Wegovy and Ozempic) dominated much discussion. we will see more pharma companies search for the next generations of these drugs
- There's growing recognition that China has become a medical innovation powerhouse



Biotechnology Market Poised for Tremendous Growth

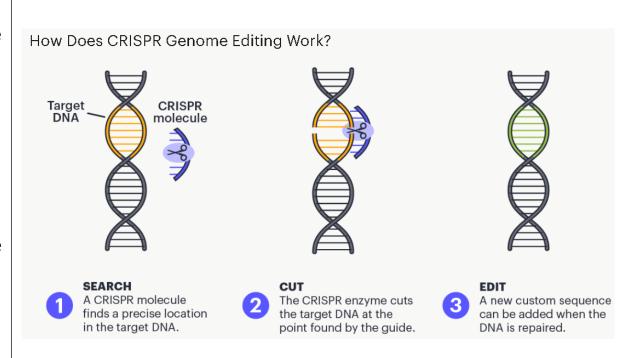


- Global biotechnology market was valued at USD \$1.55 trillion in 2023
- projected to grow at a compound annual growth rate (CAGR) of 14% from 2024 to 2030
- Value of \$3.08 trillion projected by 2030
- BioPharma Reporter analysts predict that cell and gene therapies, promising forms of precision medicine, will be top trends in 2024 aided by the increasing availability of genetic data
- Artificial intelligence (AI) has been a helpful tool
 for gathering bioinformatic data, and it can aid the
 progress of the study of personalized, or
 precision, medicine



CRISPR Gene Editing Rapidly Advancing Science

- DNA instruction manual for life; it encodes fundamental properties of an organism
- Changing a DNA sequence in a living cell is known as genome editing or gene editing
- For a long time, this was either impossible or extremely challenging
- 2012 discovery of CRISPR genome editing has made this process much easier
- Jennifer Doudna, Emmanuelle Charpentier, and their teams developed a method of repurposing a bacterial immune system called CRISPR —Clustered Regularly Interspaced Short Palindromic Repeats
- Making breaks in DNA at precise locations, using a CRISPR-associated enzyme (the Cas9 protein) like molecular scissors to cut DNA
- Allows for editing the genome of living organisms by adding new fragments of DNA
- Replacing a disease-causing mutation with a healthy sequence or make other modifications to the genome
- Alternatively, this method can be used to "knock out" a gene entirely



Source: innovativegenomics.org 40



CRISPR Gene Editing Historic Approvals!



FDA Approves First Crispr Treatment That Might Cure Sickle Cell Robert Hart Forbes Staff Dec 8, 2023,



lanuary 19, 2024 04:00 AM

Blue Cross first to open sickle cell gene therapy floodgates



US FDA approves two gene therapies for sickle cell disease







U.S. approves first gene-editing treatment, Casgevy, for sickle cell disease

PUBLISHED FRI, DEC 8 2023-11:19 AM EST I UPDATED FRI, DEC 8 2023-4:02 PM EST

KEY POINTS

- The U.S. Food and Drug Administration has approved Casgevy, the first geneediting treatment to be marketed in the country.
- Casgevy uses Nobel Prize-winning technology CRISPR to treat sickle cell disease, a blood disorder that affects about 100,000 Americans.
- Vertex Pharmaceuticals and CRISPR Therapeutics co-developed the one-time treatment that will cost \$2.2 million per patient.

Bloomberg

Vertex, Crispr Get Second FDA Approval for Gene Therapy

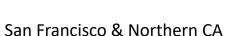
By Gerry Smith
January 16, 2024

- New treatment for beta thalassemia to compete with Bluebird
- FDA approved Casgevy to treat sickle cell disease in December



Working Together to Expand RI on Hotbed Map!







Boston & Cambridge, MA



San Diego & Southern CA

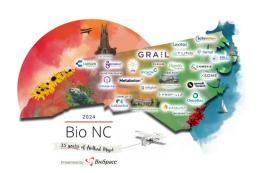


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B10Space*



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North Carolina



Washington & Oregon



Midwest



Texas





Leadership & Board



Carol Malysz, MBA Executive Director, RI Bio



Patrice Milos, PhD Senor Advisor RI Bio Board Chair



Margaret Farrell, JD
Partner, Hinckley Allen



Michael Katz, PhD Life Science Advisor Intellectual Property & Economic Development



Michael Elliott, MBBS, PhD, FRCAP Physician-Scientist, Early-Stage Life Science Investor



Dom Messerli, MBA CEO, Lenoss Medical



Guy Asadorian SVP and Private Client Advisor, Bank of America Private Bank



Indra Neil Sarkar, PhD President & CEO, Rhode Island Quality Institute



Jeff Vallerga Vice President Business Development, BIO



Michelle Wu Medical Device Leader, Management Consulting, Wu Consulting



Jaimy Mauricio
Senior Director, Financial
Planning & Analysis,
Intellia Therapeutics

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Thank You RI Bio Partners, Sponsors & Members!













































Thanks RI Bio Legislative & Policy Committee (including members Amgen, BIO, Bristol Myers Squibb, J&J, Novartis, Pfizer & Vertex)

224 RI Bio Members and Growing!!