



# 2022-23

## ANNUAL REPORT

TABLE OF CONTENTS

Board Chair's Report ..... 3

Board of Directors 2022-23 ..... 4

CEO's Report ..... 5

PEI Bioscience Cluster Growth ..... 6

PEI BioAlliance Highlights 2022-23 ..... 7

PEI Bioscience Private Sector Companies ..... 14

PEI Bioscience Cluster Partners ..... 15

PEI BioAlliance Working Groups ..... 16

PEI BioAlliance Team ..... 17

### BOARD CHAIR'S REPORT



On behalf of the Board of Directors and staff of the Prince Edward Island BioAlliance, it is my pleasure to present the Annual Report for 2022-23.

The PEI's bioscience industry has grown to become a key component of the Island's economy, with outstanding results in new business development, investment, revenue growth and job creation. This is a testament to the BioAlliance model, a partnership among industry, researchers, academia, and government agencies, working together to support a prosperous bioscience community. These partners have worked together to successfully create an innovation ecosystem that has facilitated the remarkable growth and vibrancy of the bioscience sector in PEI.

The rapid growth of the cluster has put pressure on two key enablers of continued success: the availability of skilled talent, and the availability of specialized R&D and manufacturing facilities. In 2021, the BioAlliance established the Canadian Alliance for Skills and Training in Life Sciences (CASTL) to create a national talent pipeline for the bioscience sector. Locally, Holland College, Acadia University, UPEI, and Skills PEI have become important CASTL partners. CASTL opened its headquarters and Biomanufacturing Training Facility in Charlottetown in September 2022. Last year, with support from the Government of Quebec, CASTL announced plans to open a biomanufacturing training facility in Montreal. And this year, CASTL has partnered with British Columbia Institute of Technology in planning for a new biomanufacturing training facility.

The opening of the new BioManufacturing Incubator (BMI) in 2022 was a critical step in ensuring availability of leasable space for manufacturing scale up. The six unit, 20,000 sq ft facility was fully leased before completion pointing to the urgent need to add to the continuum of pilot plant and scale up manufacturing space meeting international regulatory standards.

Another important milestone this year was the announcement from the Governments of Canada and Prince Edward Island of a \$50 million investment in the BioAccelerator, the largest single investment in economic development infrastructure in PEI history. This new 75,000 sq. ft. biomanufacturing centre of expertise is unique in Canada in its design and service delivery components. It will enable Canadian bioscience companies to carry out research and new product development, process development, manufacturing scale up, as well as provide access to biopharmaceutical manufacturing skills and training. Together, these initiatives are key elements in the BioAlliance's plan to build out the province's capacity and reputation as a national centre of expertise in biomanufacturing.

As Board Chair, I'd like to thank all members of our Board of Directors for their commitment to the cluster over the past year. I want to acknowledge the dedication and leadership of Rory Francis, our CEO, and the growing team of BioAlliance staff for their hard work and contributions to the bioscience sector's success. I wish to also thank our funding partners, the Government of Prince Edward Island (Innovation PEI and Skills PEI), the Atlantic Canada Opportunities Agency (ACOA), and our private sector and other government partners for their continued and valued support of the PEI bioscience cluster.

The long-range forecast for our powerful sector is bright, as we are well ahead of meeting sector revenue targets of \$500 million by 2025 and \$1 billion by 2030, which will ensure the continued growth and prosperity of the PEI bioscience sector well into the future.

Sincerely,

A handwritten signature in dark ink, appearing to read "Oliver Technow".

Oliver Technow  
Board Chair, PEI BioAlliance

## **BOARD OF DIRECTORS 2022-23**

Oliver Technow  
Cheryl Stewart-Walsh  
Ron Keefe  
Katelyn Godfrey  
Greg Keefe  
Chris Kirby  
Jamie Aiken  
Yimy Mena  
Sandy MacDonald  
Charmaine Noonan  
Eugene Howatt  
Denise LeBlanc  
Mohammed Moin  
Crystal Cormier

BIOVECTRA  
FleishmanHillard Highroad  
Regis Duffy Bioscience Fund  
Farm Credit Canada  
UPEI  
Agriculture and Agri-Food Canada  
Government of PEI  
Pegasus Biotech  
Holland College  
Elanco  
Sekisui Diagnostics  
National Research Council  
Somru Biosciences  
Natures Crops International

Chair  
Vice Chair  
Treasurer  
Secretary



### CEO'S REPORT



Our BioAlliance Annual Report presents an important opportunity to highlight the achievements and milestones accomplished by the dynamic and growing bioscience sector here in Prince Edward Island. I want to start by thanking the over 2,300 executives, scientists, technicians, support and operations staff in businesses, research and academic institutions, investment firms, and government agencies, who together as a community have made these achievements possible.

Our bioscience cluster has already surpassed 2025 growth targets and is well on its way to becoming a billion-dollar industry by 2030. In 2021, private sector company revenues reached \$575 million, a \$200 million increase over 2020.

Investment attraction topped \$110 million, almost doubling the previous year. Sector workforce has increased by 400 full-time jobs since the pandemic began, now standing at 2,300 employees, working at over 60 companies. Business-led R&D was \$28.2 million, up \$8 million, while annual tax revenues to governments were estimated at \$87 million annually, up 53% since 2018.

It is the combination of strong growth of the cluster's larger companies and the commercial success of earlier stage companies which has been an excellent recipe for sustained development of the cluster. It has been truly remarkable to see the range of breakthrough technologies and products coming from our cluster companies that are bringing new solutions to global challenges in human, animal, and fish health. Collaboration and cooperation among businesses, academic and research partners, and governments at all levels continues to make PEI a great place to grow bioscience-based businesses.

This year, we also launched our new Human Resources Strategy 2025: Breaking Barriers - Driving Growth. The strategy focuses on actions to enhance recruitment and retention success, provide HR support to companies, address the talent gap through skills and training development, and increase public awareness and understanding of bioscience career paths.

Among the many highlights, the BioAccelerator announcement was an exceptional endorsement of the hard work and vision of the leaders from our cluster's business, research, and government organizations and their commitment to sustainable economic growth. It will provide essential biomanufacturing facilities and services for businesses across the region and beyond, that are critical to business growth and biomanufacturing self-sufficiency for Canada. Work to develop this new infrastructure is already underway and is expected to be completed in fall 2025.

Internally at the BioAlliance, our team continues to grow and I want to thank our dedicated staff as well as our Board of Directors who together are working to support the growth and development of the sector and the community, allowing it to thrive. From vaccines and drugs to fight disease, to sustainable food production and climate change mitigation, biotechnology holds solutions to some of the biggest challenges of our time, and Prince Edward Island is making its mark.

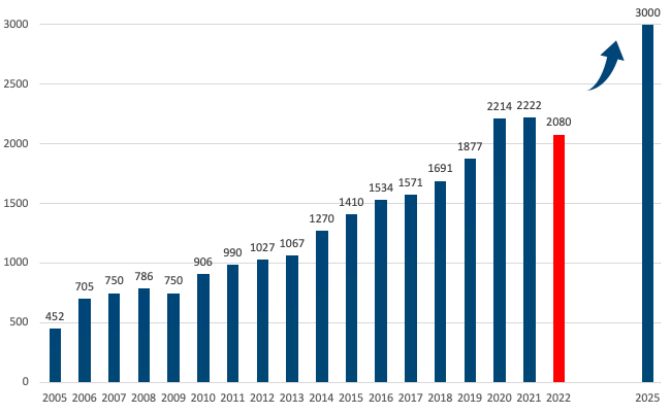
Sincerely,

A handwritten signature in dark ink, appearing to read 'Rory Francis', written in a cursive style.

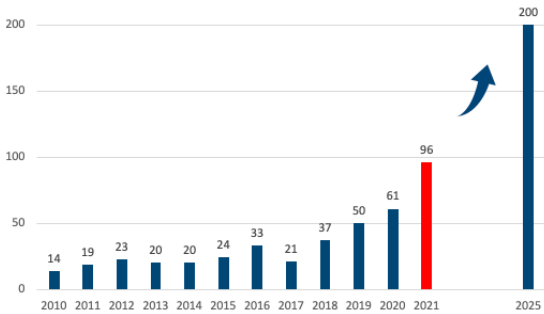
Rory Francis  
CEO, PEI BioAlliance

PEI BIOSCIENCE CLUSTER GROWTH

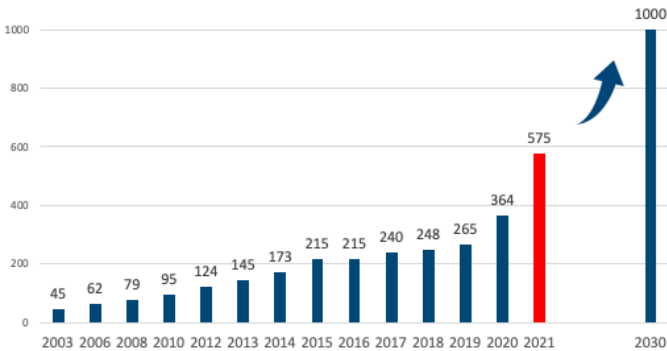
Employment



Investment (Millions)



Private Sector Revenue (Millions)



## PEI BIOALLIANCE HIGHLIGHTS 2022-23

### Business Development Initiatives

- Continued to build on Emergence programs, outreach, mentors and companies, with 40 clients in the program from across Canada, with 78% based in Atlantic Canada and 63% with women leadership.
- Organized and led the Atlantic Canadian delegation to the BIO 2022 International Convention in June 2022.
- Participated in the Kansas City Animal Health Forum 2022.
- Welcomed new companies to Emergence: Reazent, GreenSage Prebiotics, 7 Fathoms Seaweed Skin Care, and AVC Diagnostics.
- Announced Emergence 3.0 funding to support the continued development of small and medium-sized bioscience companies in Atlantic Canada.
- Participated in the North Atlantic Seafood Forum 2023.
- Supported the development and launch of ElevateIP for Atlantic Canada.
- Participated in the Atlantic Venture Forum 2022.
- Visited Emergence client companies and partner organizations in Newfoundland and Labrador.
- Conducted pilot project to expand scope of Emergence to include medical devices.



## **PEI BIOALLIANCE HIGHLIGHTS 2022-23**

### **Human Resources Strategy**

- Launched HR Strategy 2025: Breaking Barriers – Driving Growth, including company career fair.
- Promoted 350 bioscience job opportunities on the PEI BioAlliance website, through eNews and on social media - reaching an audience of 7,000.
- Conducted a retention study with companies to identify challenges and prepared report with action items.
- Established HR Excellence Working Group.
- Connected with local, national and international job seekers and provided guidance in possible best job matches in bioscience community.
- Invited job seekers to send in resumes to refresh our online Bioscience Resume Library that is shared with bioscience hiring managers.
- Worked with bioscience companies on their ongoing HR needs and implemented strategies to help meet their talent requirements.
- Collaborated with PEI Connectors, IRSA and Atlantic Student Development Alliance to raise awareness of bioscience jobs and connect newcomers and international students to opportunities.
- Participated in local and regional career fairs.





## **PEI BIOALLIANCE HIGHLIGHTS 2022-23**

### **Infrastructure Development and Company Expansions**

- Conducted the opening of the Bioscience Manufacturing Incubator (BMI).
- Chinova Bioworks expanded manufacturing space inside the Bioscience Manufacturing Incubator.
- CASTL opened the Charlottetown Biomanufacturing Training Facility.
- CASTL announced Quebec Biomanufacturing Training Facility.
- Announced a \$50 million investment from federal and provincial governments to support the BioAccelerator, a 75,000 sq-ft biomanufacturing centre of expertise.
- CASTL partnered with British Columbia Institute of Technology on planning for a new biomanufacturing training facility.
- BIOVECTRA started construction on its Charlottetown mRNA Biomanufacturing Centre.
- Announced the Request for Proposals for Detailed Engineering Design for BioAccelerator.
- Norway's Amar Group acquired Halibut PEI facility.
- RPS Biologiques brokered distribution deal with Chilean Agrovet.
- Somru expanded operations to enhance research and lab support.



## **PEI BIOALLIANCE HIGHLIGHTS 2022-23**

### **Education, Outreach and Community Relations**

- Hosted 2022 Global Biotech Week.
- Sponsored BioPort 2022 Atlantic BioInnovation Challenge.
- Participated in the grand opening of STEAM PEI facility.
- CASTL launched first series of hands-on training courses.
- Sponsored Junior Achievement Business Hall of Fame and UPEI Business Society Luncheon.
- CASTL participated in the Effervescence life science conference.
- Participated in the pan-Canadian genomics strategy roundtable with the Government of Canada
- Reignited BioNetworking Sessions with company presentations and networking for bioscience community.
- Participated in BIONATION 2022.
- Participated in 2022 PEI Pride Parade.
- Conducted a site visit with CASTL to National Institute for Bioprocessing Research and Training (NIBRT) facility in Ireland.
- Hosted the annual Holiday Reception and Summer Solstice socials for bioscience community.
- Facilitated Atlantic Life Sciences Working Group meetings.



## PEI BIOALLIANCE HIGHLIGHTS 2022-23

### Awards and Recognition

- Sekisui named one of Atlantic Canada's Top 100 Employers 2023 and as one of the 100 Most Sustainable Corporations.
- BIOVECTRA named as one of Atlantic Canada's Top Employers 2023.
- Pegasus Biotech and Biospa recipients of Chamber of Commerce Business Excellence Awards.
- Natasha Dhayagude, CEO of Chinova Bioworks, named Entrepreneur of the Year by Innovators and Entrepreneurs Foundation and received an Innovation Award at 2022 RBC Women of Influence Awards.
- Regis Duffy recognized by Emergence as Mentor Emeritus.
- Bactana and Reazent received funding from Natural Products Canada's Commercialization Program.
- Chinova Bioworks, BioSpa and Au Naturel Solutions named in Natural Products Canada's Game Changers report celebrating Canada's female led nature and bio-based companies.
- Pegasus Biotech received designated status under the Atlantic Immigration Program.





## PEI BIOALLIANCE HIGHLIGHTS 2022-23

### Appointments

- Chris Cowper-Smith joined Emergence as Business Advisor.
- Matt Roberts joined Emergence as Business Advisor.
- Emergence announced five new volunteer team mentors: Cathy Bennett, Tanya Chapman, Branko Jankovic, Kent Summers and Tom Turi.
- Sven Ansorge appointed as Associate Director of Technical Training for CASTL.
- Gordon Dixon appointed as Director of Finance.
- Arnaud Fougere appointed as Post Doctoral Scientist.
- Rajwinder Kaur appointed as Post Doctoral Scientist.
- Magdalena Mahlstedt appointed as Academic Partnership Manager for CASTL.
- Sarah Nguyen appointed as Director of Business Development for CASTL.
- Angela Penney appointed as Accountant.
- John Storrie appointed as Biopharmaceutical Manufacturing Trainer for CASTL.
- Kelsey Turner appointed as Program Assistant for CASTL.
- Paul Xavier Etter appointed as Director of Technical Training for CASTL.





## **PEI BIOALLIANCE HIGHLIGHTS 2022-23**

### **Networks**

- Member of the Canadian Agricultural Policy Institute
- Member of National BioAccord
- Member of BioTalent Board of Directors
- Member of Natural Products Canada Founding Node Partners
- BioAlliance participated in several Greater Charlottetown Area Chamber of Commerce committees, including Advocacy and Communications
- Founding Member of Partnership for Growth
- Member of the Vineland Research and Innovation Centre Board of Directors
- Member of the Atlantic Canada Bio Industries Alliance
- Member of the Canada's Ocean Supercluster Board of Directors
- Member of Atlantic Student Development Alliance (ASDA) Board of Directors
- Member of Holland College Bioscience Program Advisory Committee
- Member of STEAM PEI Board of Directors
- Member of Smart Landing Program Canada Board of Directors
- Board Member and Chair, Canada's Smartest Kitchen Technology Access Centre at Holland College

## **PEI BIOSCIENCE CLUSTER PRIVATE SECTOR COMPANIES**

AddiCan  
Advanced Extraction Technologies  
Affinity Immuno  
Alpha Cognition  
Amar Seafood  
Aqua Bounty Canada  
Atlantic AgriTech  
Au Naturel Solutions  
Auxly  
Avivagen  
Bactana  
BioSpa  
BioTracelT  
BIOVECTRA  
Canabliss  
Center for Aquaculture Technologies  
Chinova Bioworks  
CNS-CRO  
Direct Nutrisciences  
Elanco  
EVAH  
Eversea

FIGR  
Hurnik Group  
Island Abbey Foods  
Island Water Technologies  
Microsintesis  
Natures Crops International  
Nautilus Biosciences Croda  
NeuroQuest  
North Atlantic Organics  
Nutracelle  
Pegasus Biotech  
PEI Potato Quality Institute  
Remidose Aerosols  
RPS Biologiques  
Sekisui Diagnostics  
Sentry  
Sevita International  
Somru Bioscience  
Stepscan  
Timeless Technologies  
Tronosjet  
Tunistrong

## PEI BIOSCIENCE CLUSTER PARTNERS

### Funding Partners

Atlantic Canada Opportunities Agency  
PEI Department of Economic Development, Tourism and Trade (Innovation PEI)  
Skills PEI

### PEI BioAlliance Partners

Addican	Integrated Project Services
Advanced Extractions	Intertek Health Sciences
Affinity Immuno	Island Abbey Foods
Aqua Bounty Canada	McInnes Cooper
Atlantic Agritech	Microsintesis
Au Naturel Solutions	MRSB
Auxly	National Research Council
Avantor	Natural Products Canada
Avivagen	Natures Crops International
Bactana	Nautilus Biosciences Croda
BioSpa	Neurodyn Cognition
BioTalent Canada	Novo Nordisk Canada
BIOTECanada	Nutracelle
BioTraceIT	Paul Dick & Associates
BIOVECTRA	Pegasus Biotech
Center for Aquaculture Technologies	PEI Potato Quality Institute
Chinova Bioworks	Regis Duffy Bioscience Fund
CNS-CRO	Remidose
Connolly Group	RPS Biologiques
Dan Hurnik	Sekisui Diagnostics
Elanco	Sevita Genetics
EVAH	SNC-Lavalin
Eversea	Somru Bioscience
FIGR	Stepscan Technologies
Genome Atlantic	Stewart McKelvey
Global Affairs Canada	Timeless Technologies
Grant Thornton	UPEI
Holland College	

## **PEI BIOALLIANCE WORKING GROUPS**

### **Venture Development Coordinating Committee**

Chair, Jason Cleaversmith	PEI BioAlliance
Eddie Francis	PEI BioAlliance
Don Ridley	PEI BioAlliance
Vivian Beer	PEI BioAlliance
Clara Deacon	PEI BioAlliance
Joan Turner Adams	Innovation PEI
Brad Mix	Innovation PEI
Jennifer White	Atlantic Canada Opportunities Agency
Marlene Walker	NRC IRAP
Kim Johnstone	Natural Products Canada
Barbara Campbell	Natural Products Canada
Marc Richard	UPEI
Jillian Sproul	BioFoodTech
Shawn MacDougall	Holland College

### **Human Resources Working Group**

Chair, Vivian Beer	PEI BioAlliance
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\*Committee includes representatives from individual member companies and partner organizations

## PEI BIOALLIANCE TEAM

Rory Francis	CEO
Sven Ansorge	Associate Director, Technical Training/Site Manager, Montreal, CASTL
Vivian Beer	Manager, HR Strategy
Jason Cleaversmith	Executive Director, Incubation and Infrastructure
Clara Deacon	Director, Communications and Marketing
Sheri Dennis	Accounting Associate
Gordon Dixon	Chief Financial Officer
Paul-Xavier Etter	Director, Technical Training, CASTL
Arnaud Fougrouse	Post Doctoral Scientist
Eddie Francis	Business Development Associate
Rajwinder Kaur	Post Doctoral Scientist
Jennifer Lenentine	Manager, Corporate Services
Heather Lizama	Corporate Administrator
Magdalena Mahlstedt	Manager, Academic Partnerships/Trainer, CASTL
Sarah Nguyen	Director, Business Development, CASTL
Angela Penney	Accountant
Sidney Reid	Director, Client Services, CASTL
Don Ridley	Mentor-in-Residence
Chelsey Rogerson	Director, Communications and Marketing, CASTL
Ellen Ross	Training Administrator, CASTL
John Storrie	Biomanufacturing Trainer, CASTL
Kelsey Turner	Program Manager, CASTL
Hardik Upadhyay	Biomanufacturing Trainer/Site Manager, Charlottetown, CASTL
Penny Walsh-McGuire	Executive Director, CASTL



Back row (L to R): Arnaud Fougrouse, Kelsey Turner, Heather Lizama, Rory Francis, Jennifer Lenentine, Wendy MacIsaac, Jason Cleaversmith. Front row: Gordon Dixon, Penny Walsh-McGuire, Angela Penney, Vivian Beer, Rajwinder Kaur, Sidney Reid, Chelsey Rogerson, Clara Deacon