Ontario Genomics

FOOD INNOVATION IN CANADA REPORT

An $18.8 Billion Opportunity in Precision Fermentation and Cultivated Foods

EXECUTIVE SUMMARY

March 2025

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Executive Summary

As the global population accelerates toward 10 billion by 2100, the world faces unprecedented challenges, including climate change, geopolitical instability, and worsening food insecurity. Cellular agriculture, particularly precision fermentation and cultivated foods, offers an innovative solution to diversify and strengthen global food systems. By producing proteins, ingredients, and other food products in sustainable and scalable ways, this sector has the potential to redefine food production, complementing conventional methods while addressing global challenges.

Canada's Leadership Potential

Building on the 2021 landmark report, *Cellular Agriculture – Canada's $12.5 Billion Opportunity in Food Innovation*, this follow-up report, ***FOOD INNOVATION IN CANADA REPORT*** *- An $18.8 Billion Opportunity in Precision Fermentation and Cultivated Foods*, provides an updated global, national, and regional snapshot of the sector's evolution and Canada's progress on the initial recommendations. We reflect on global changes while readjusting our economic analysis and issuing a renewed call to action for advancing Canada's leadership in this high-potential growth market. In addition, we spotlight Ontario as a high-potential province through a detailed case study. The sector's projected economic impact in Canada could reach **CAD 18.8 billion**, creating over **125,000 jobs**, assuming optimal conditions and market share growth. However, seizing this opportunity requires urgent action and a nationally coordinated strategy.

Global Landscape and Developments

The international cellular agriculture industry is growing exponentially, with over 400 companies innovating in precision fermentation, cultivated foods, and supporting technologies. Leading jurisdictions like Singapore, the US, Israel, the Netherlands, and the UK, exemplify success through coordinated national strategies, efficient and transparent regulatory frameworks, and robust investments in companies and research. Global investments in food innovation, despite recent economic downturns, have grown by $1.6 billion since 2021, emphasizing the continued momentum in this sector. For Canada to stake its claim in this international opportunity, early success and a strong foundation are paramount to ensuring it carves out its share of the market and develops supply chain relationships.

Canada's Progress

Since 2021, the Canadian government has taken concrete steps to recognize the importance of the broader biomanufacturing sector through strategic partnerships and investments. Additionally, Canada has made strides in cellular agriculture, both nationally and regionally, including:

- Doubling the number of companies in the sector to 28, spanning precision fermentation, cultivated foods, and support industries.

- Regulatory progress, such as updates on Health Canada's website with information on regulatory considerations beyond novel food premarket requirements, as well as the recently authorized precision fermentation product, Remilk.
- Substantial progress is evident across various provinces, with regional initiatives and investments that support research, company creation, and scaling efforts.

To fully realize the economic potential of this sector, national coordination of regional capabilities must be prioritized moving forward.

Challenges and Opportunities

To maximize the economic potential of cellular agriculture, Canada must overcome key challenges:

1. **Scaling Infrastructure:** Developing large-scale production facilities to ensure cost-competitive outputs.
2. **Coordination:** Aligning regional strengths under a cohesive national strategy.
3. **Regulatory Agility:** Streamlining approval processes to remain globally competitive.

As cellular agriculture technologies, particularly precision fermentation, continue to mature, optimizing and reducing input costs becomes increasingly vital. Upcycling agricultural byproducts can enhance affordability and sustainability while supporting conventional farmers and processors. This alignment strengthens Canada's ability to be a trusted, sustainable supplier of high-quality agri-food products globally.

This level of cooperation from across the agri-food value chain remains paramount to the success of Canada's cellular agriculture sector and is well aligned with the 2019 Economic Strategy Table on Agri-Food's vision for Canada to be recognized as the most trusted, competitive and reliable supplier of safe, sustainable, high-quality agri-food products, an innovator in value-added products to feed the dynamic global consumer, and favoured protein provider globally.

Recommendations

To position Canada as a global leader in cellular agriculture, the following steps are critical:

1. Prioritize a National Vision and Strategy for a Canadian Cellular Agriculture Industry in the Near Term.
2. Take Proactive Evolution Toward a Clear, Transparent, and Agile Regulatory Framework for Cellular Agriculture Products in Canada.
3. Provide Additional Supporting Mechanisms for Research and Commercial Development, Building on the Foundation Already in Place.

Changes from the 2021 Report's Recommendations have been underlined above.

Conclusion

Canada has the tools and expertise to lead the global cellular agriculture revolution. Our revised forecast suggests the Canadian industry could reach CAD 18.8 billion, creating over 125,000 jobs, representing the upper end of the potential, assuming optimal conditions globally and regarding Canada's market share. By acting decisively and fostering collaboration across regions and industries, the country can capitalize on the economic and sustainability benefits of this transformative sector. The time to act is now—failure to prioritize this opportunity risks Canada's competitive edge in the growing global market.

Organizations Endorsing a Renewed Call to Action

BIOFECT™ INNOVATIONS
CANADIAN FOOD INNOVATION NETWORK
consecon foundation
Cultivated B
ESCARPMENT LABORATORIES
food centre Saskatchewan Food Industry Development Centre Inc.
GIFS | GLOBAL INSTITUTE FOR FOOD SECURITY
Griffith FOODS
Ingredion
MSE
Kulture Rebellion
CENTRE D'ACCÈS À LA TECHNOLOGIE EN BIO-INNOVATION | LA CITÉ LE COLLÈGE D'ARTS APPLIQUÉS ET DE TECHNOLOGIE
Lipiferm Scientific
MYO PALATE
NPC NATURAL PRODUCTS CANADA
NEW HARVEST
TERRA BIOINDUSTRIES
UNIVERSITY OF THE FRASER VALLEY FOOD AND AGRICULTURE INSTITUTE
UNIVERSITY of GUELPH
WPL
Genome Alberta
Genome Atlantic
Genome Prairie

Food Innovation in Canada Report Online Version

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