GFI's GLOBAL HIGHLIGHTS

May 2024

The top highlights:

- **Following a rigorous global review conducted in partnership with GFI to identify research institutions best suited to address the major challenges and opportunities in alternative proteins, the Bezos Earth Fund announced that North Carolina State University, a leader in agricultural research, will host the first Bezos Center for Sustainable Protein.** The $30 million investment signals a significant step forward in alternative protein science and addresses the critical need to diversify the global protein supply chain. The center is the first of its kind to launch in 2024, with two others—in Europe and Southeast Asia—to be announced later in the year. GFI is thrilled to see this level of commitment and recognition of alternative proteins as essential agricultural innovations. Watch this video in which Bezos Earth Fund President & CEO Dr. Andrew Steer explains why this launch is an important step in transforming our global food system.
- **The World Economic Forum, in partnership with GFI Israel, the Israeli Center for the Fourth Industrial Revolution, and the Israel Innovation Authority, published a report highlighting "the essential role governments play in propelling progress in alternative proteins."** The report underscores alternative protein as a pivotal solution for building resilient global food systems and demonstrates how investment in the sector can drive economic growth and innovation, create new jobs, and stimulate the global bioeconomy.
- **GFI India played a key role in launching two new alternative protein innovation centers in Bangalore:** IKP Knowledge Park's Centre for Smart Protein and Sustainable Material Innovation and the Alternative Proteins Innovation Center's (APIC) integrated research and manufacturing facility. GFI India also released a report on the incubation ecosystem co-authored with IKP Knowledge Park and initiated a Memorandum of Understanding with APIC to accelerate the alternative protein sector.



- **GFIC, an independent strategic partner that does mission-aligned work in mainland China, released the China Plant-based Meat Supply Chain report (and summary)**, highlighting a tenfold capacity increase in China's plant-based meat industry from 2019 to 2023. The report emphasizes China's pivotal role in the global plant-based protein landscape, providing an industrial-level analysis and identifying value chain opportunities.
- **Illinois approved $5 million to expand the Integrated Bioprocessing Research Laboratory at the University of Illinois Urbana-Champaign, a leading fermentation-based research facility that works closely with alternative protein companies**. GFI has worked closely with Illinois lawmakers and academic leaders for multiple years to advocate for additional public funding to support the university's visionary alternative protein research and development.

How we're contributing to our core objectives

The following objectives capture GFI's approach to accelerating the development of alternative proteins and transforming the global food system. Below is a sampling of last month's work.

GFI fosters a strong open-access alternative protein research and training ecosystem

- The journal *Trends in Cell Biology* published an article co-authored by GFI APAC SciTech Specialist Maanasa Ravikumar, Ph.D., Senior SciTech Analyst Dean Powell, Ph.D., and Senior Communications Manager Ryan Huling. The article discusses ongoing challenges in developing commercially suitable cell lines for cultivated meat, highlighting urgent research opportunities for cell and molecular biologists.
- The journal *Applied Sciences* published an article co-authored by GFI India SciTech Specialist Padma Ishwarya that assesses the nutritional profile of plant-based meat compared to conventional meat and explores improved nutrient absorption in plant-based meat products.
- GFI Brazil launched five new lectures in the open-access online course exploring the science of alternative proteins. The additions expand the course offerings to three distinct tracks: basics of alternative protein science, alternative protein advanced topics, and innovation and market of alternative proteins. The new lectures include a range of topics including bioreactor development, texturization, mycoprotein, consumer perceptions, and more.
- GFI released a deep dive report into what we know about current and future production capacities in cultivated meat, based on data from 30 companies in the industry.
- GFIC Senior SciTech Consultant Minqi Wang spoke on new protein resources in China at the first International Symposium on Food Science and Future Technology Innovation in Beijing. The event attracted over 1,000 attendees from 23 countries, plus an additional 150,000 viewers who tuned in for the online broadcast.



- Invited by Jiangnan University Science & Technology Park, one of China's leading food technology transfer centers, Minqi presented on biomanufacturing and innovation in food production at the 2024 Taihu Bay Future Healthcare Conference in Wuxi.
- Director of SciTech Matt Hotze, Ph.D., spoke on a panel about the circular economy and attended the Circular Bioeconomy Innovation Collaborative leadership meeting at the inaugural BEAM Circular Community Symposium. The symposium convened over 200 industry leaders and community members to explore the benefits and opportunities of this emerging sector.
- Maanasa spoke at the LUX Photonics Consortium quarterly members meeting held at Nanyang Technological University for over 100 academics and industry representatives. She presented key research gaps across the cultivated meat value chain, particularly in bioreactor design and bioprocess optimization needed for scale-up, and underscored opportunities for the photonics community to work with biologists to drive innovation.
- GFI Brazil SciTech Manager Cristiana Ambiel and Corporate Engagement Specialist Guilherme Vilela led presentations at a two-day alternative proteins workshop organized by Embrapa Food Agroindustry, a division of the Brazilian Agricultural Research Corporation (Embrapa), and Netzsch

Grinding & Dispersing. Cristiana gave a lecture on plant-based meat technology and innovation and Guilherme gave an overview of the plant-based market.

- Principal Scientist Elliot Swartz, Ph.D., hosted this month's Cultivated Meat Collaborative webinar with presentations from tech companies RIC Resolve and Occam Bio. RIC Resolve shared aroma profiling as a tool to support alternative protein innovation, and Occam Bio shared their work in high-quality validated cell lines and the scalable and affordable production of growth factors.
- Associate Director of Scientific Ecosystems Amy Huang moderated this month's Science of Alt Protein webinar featuring Dr. Volker Lammers of the German Institute of Food Technologies. Dr. Lammers shared robust and scalable extruder solutions for plant-based meat production.
- GFI Brazil hosted a virtual Biomes Program Workshop to present the results from the second edition of the Biomes Program—the national funding program for research projects to develop ingredients from Brazilian biodiversity for use in the plant-based sector. Attendees joined from ingredient industries, philanthropic funds, and academia.
- GFI Europe Research and Grants Manager Stella Child, Ph.D., gave an introduction to alternative proteins to 50 scientists at an internal seminar series for Nofima, Norway's largest contract research organization (CRO) and one of the largest food science CROs in Europe.
- GFI Israel SciTech Manager Anton Slavkin, Director of Innovation and Business Engagement Aviv Oren, and Associate Director of Policy Adi Ben Tov presented on the scientific, business, and policy perspectives of alternative proteins at the Innovation in FoodTech & Biotech program. Organized by the Technion - Israel Institute of Technology in collaboration with the Israel Innovation Authority, the program is designed for professionals and academics in the food, pharmaceutical, and biotechnology industries and emphasizes sustainable foodtech solutions.
- GFI Europe Policy Manager Pauline Grimmer spoke at the Baltics' largest deep tech industry event in Riga, Latvia. She participated in a panel session and delivered a presentation on the regulatory challenges faced by the alternative protein sector and how policy can unlock the sector's potential.

GFI influences the public sector to support alternative proteins

- Commissioned by GFI Europe, the environmental think tank Green Alliance released a report titled A new land dividend: The opportunity of alternative proteins in Europe. The report models the environmental and land use potential of a scaled-up alternative protein sector, intending to initiate discussions about the enabling role alternative proteins can play in a sustainable food system.
- Senior Policy Specialist Maille O'Donnell participated in a Department of Energy industry stakeholder meeting where she provided input on the agency's upcoming industrial decarbonization pathways study. She participated in breakout group sessions and distributed a new GFI fact sheet on decarbonizing protein production.
- GFI SciTech and Policy team members attended the BioMADE Annual Meeting to present the case for food, particularly fermentation-derived proteins, to be a larger part of the U.S. bioeconomy expansion. BioMADE, a U.S. Department of Defense Manufacturing Innovation Institute, is a public-private entity dedicated to expanding domestic bioindustrial manufacturing capacity.
- GFI Europe Policy Manager Linus Pardoe spoke on a panel on the future of protein at the University of Nottingham's Future Food Symposium, alongside representatives from the university, Quorn, and the food and drink research organization Campden BRI. Linus highlighted the political challenge of meat reduction and the opportunity presented by alternative proteins.

- Regulatory Attorney Mackenzie Battle, J.D., was a panelist at the American Conference Institute's 8th Annual Food Law Summit in Chicago, a comprehensive legal and regulatory event for the food industry. She spoke about navigating the latest scientific and regulatory developments impacting plant-based foods.
- Lead Scientist Priera Panescu, Ph.D., was a panelist for a webinar hosted by the Manitoba Department of Agriculture and Resource Development. She presented emerging trends in the alternative protein sector and opportunities for plant-based product development.

GFI influences the private sector to prioritize alternative proteins

- GFI Israel was featured in FoodTech Nation's "How to Feed 9 Billion People" conference at Reichman University, an event that addresses food security in the context of climate change. GFI Israel CEO Nir Goldstein showcased GFI Israel's report on national food security, Aviv moderated a panel on innovation and industry solutions, and VP of Strategy and Policy Alla Voldman-Rantzer was a panelist for a discussion on industry-government collaborations.
- GFIC CEO Doris Lee gave a keynote speech at the first-ever National Conference on Mycoprotein Technology Innovation and Industry Development, organized by China's leading biopharma manufacturer and Jiangnan University Science Center for Future Food. Doris spoke about the development of the fermentation-derived protein industry and its future outlook.
- GFI Europe Head of Industry Carlotte Lucas spoke on a panel about consumer acceptance of sustainable foods at The Future of Food & Beverage conference in Amsterdam, alongside the Head of Sustainability of Oatly and the Head of Climate Group Europe. The event's audience included major retailers and suppliers like Unilever, Danone, Nestlé, Arla, ADM, and Aldi.
- GFI Brazil published the 360° consumer research report on the plant-based market and held a webinar presenting the main insights from the research. The report explores influences on consumer choices regarding plant-based products and innovative foods.
- GFI published a new report on 2023 U.S. plant-based foodservice sales. The report analyzes the $300 million market for plant-based proteins in broadline distribution channels.
- In partnership with GFI, Foodsteps launched a free new Life Cycle Analysis (LCA) modeling tool for alternative protein companies. The tool allows companies to assess products' environmental footprints across key impact categories, including carbon emissions, water use, and land use. During GFI's May Business of Alt Protein webinar, GFI and Foodsteps introduced the free version of the software. You can find additional resources on LCAs and ESG best practices on our website.
- Dig Insights published an open-access report based on findings from a consumer survey conducted in collaboration with GFI and the Plant Based Foods Association. The report covers consumer perceptions of plant-based and cultivated meat in retail and food service in the United States. Key findings include that 64 percent of consumers are actively increasing their protein intake and 91 percent of people say they find plant-based protein satisfying after trying it.
- GFI Europe Senior Public Affairs Manager Ivo Rzegotta was a panelist at the Greentech Festival Berlin to discuss alternative proteins and novel food regulation in Europe. The festival convenes investors, academics, and industry experts and focuses on technologies for a sustainable future.
- GFI Brazil Corporate Engagement Data Specialist Camila Lupetti was interviewed in a videocast during APAS Show 2024, the biggest fair in the Brazilian food and beverage retail sector. She discussed recent consumer data and Brazil's plant-based meat sector landscape.

- GFIC Innovation & Entrepreneurship Manager Viola Chen moderated a biomanufacturing panel at Future Food Asia 2024, an annual agrifood event in Singapore organized by ID Capital. The event gathers stakeholders from corporates and startups to help bridge the innovation gap and facilitate collaboration.
- Viola moderated the Future Food Roundtable at the Global Food Beverage Innovation Conference hosted by Foodaily, a Chinese food industry platform. Industry executives joined the roundtable to discuss alternative proteins and their impact on consumer diets.
- GFI launched Japanese and Korean summaries of our 2023 State of the Industry Reports (SOTIR) to engage audiences and provide global updates in these high-priority countries. The cultivated meat SOTIR was also translated into Chinese and published on GFIC's website.



GFI positions alternative proteins as a scalable solution to global challenges

- GFI published a summary of the alternative protein-related takeaways from the World Bank's "Recipe for a Livable Planet" report. The report examines 26 promising climate change mitigation interventions in the agrifood sector and ranks alternative proteins second by mitigation potential.
- Director of International Engagement Stephanie von Stein organized a multilateral dialogue under the UK government/CGIAR-led Agriculture Breakthrough initiative, highlighting alternative proteins as a key area for accelerating agricultural transition for climate resiliency. Representatives from eight agriculture ministries attended, and speakers from Denmark, Canada, Brazil, and the United States shared best practices in public funding for alternative protein R&D and commercialization.
- GFI co-sponsored a three-day alternative proteins strategy session with the Bezos Earth Fund, World Resources Institute, and Climate Advisers. Attendees from the World Bank, CGIAR, the Food and Agriculture Organization of the United Nations, and more engaged in discussions, workshops, and relationship building.
- GFI Brazil was officially admitted to the Climate Observatory, a renowned coalition of Brazilian civil society organizations dedicated to climate action and environmental issues.
- GFI Europe launched a new Italian-language website, expanding the team's extensive resources and information to now be accessible to English, German, and Italian audiences.
- GFIC launched a redesigned website, now available in both Chinese and English, with a new, more interactive design layout.

Top media mentions:

- Senior VP of Policy and Government Relations Jessica Almy, J.D., positioned Florida's decision to ban cultivated meat as an eccentric attack on consumer choice in an interview with Scripps News' *The Race*. Excerpt: "It's really an instance of politicians deciding what is ok and what is not, and not trusting individual consumers to make good choices for themselves and their families. It's also a vote against innovation and economic growth and consumer choice in Florida."

- Legislative Director Pepin Tuma, J.D., was quoted in a *WIRED* article covering the recent cultivated meat bans in Florida and Alabama, noting the limitations to both consumers and industry. Excerpt: "At a time when American farmers and manufacturers face stiff competition around the world, states can either support new initiatives that create thousands of good-paying jobs, or they can play politics and police the foods people eat."
- GFI APAC Managing Director Mirte Gosker was featured in a cover story about the future of meat in South Korea's most-read newspaper, the *Chosun Ilbo* [Korean text here]. Mirte noted that Korea has emerged as a global leader in the cultivated meat space, thanks to a combination of bold policy moves and technological prowess.
- *The Hindu*, a leading English-language newspaper in India, published an article in print and online that features the IKP alternative protein innovation center launch event with GFI India. The article includes highlights from GFI India's presentations about the potential of the alternative protein sector and the role of alternative proteins in addressing nutritional security.
- The World Economic Forum's newly published alternative protein report was featured across several news outlets, including an Israel TV News segment and a *Jerusalem Post* article, which includes a quote from Founder & President Bruce Friedrich on the scalability of alternative proteins: "Science and scaling in one part of the world can scale globally, because renewables, EVs, and alternative proteins are market-based solutions that – once key challenges are addressed – can shoot up the global adoption curve quickly."
- *Financial Express* published an article in print and online that compares the nutritional profile of plant-based and animal-based protein, quoting Sneha: "The products in the market are healthier and [more] environmentally sustainable than the animal-derived counterparts that they seek to replace … preservatives commonly used in processed meats—sodium nitrate and sodium nitrite—are classified by the World Health Organization as 'probably carcinogenic to humans.' Plant-based meats do not contain these preservatives."

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From everyone on Team GFI, thank you for your enthusiasm, partnership, and commitment to a better future.

Sincerely,



Bruce Friedrich
President and Founder