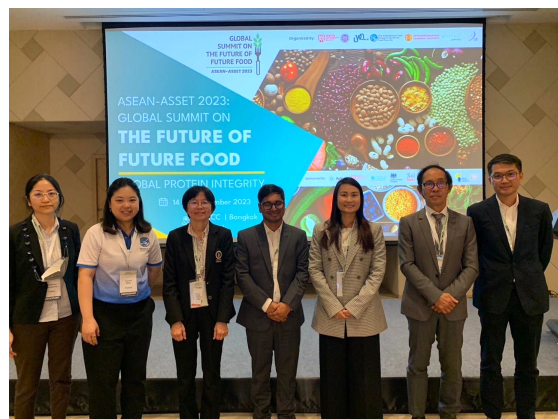


GFI's GLOBAL HIGHLIGHTS

November 2023

The top highlights:

- Following engagement by GFI Europe, the German Bundestag committed to spending 38 million euros on protein transition in the country.** The adopted measures will amend Germany's protein crop strategy to focus on proteins primarily for human nutrition rather than animal feed, create a "Proteins of the Future" competence center to develop a comprehensive protein strategy for Germany, and allocate 10 million euros to advance alternative protein production and processing methods. The measures will also support farmers who want to move away from animal agriculture and enter into the production chain for alternative proteins.
- GFI India curated a Smart Protein Pavilion at [World Food India](#),** a global event hosted by the Ministry of Food Processing Industries to facilitate partnerships between Indian and international businesses and investors. Prime Minister Modi inaugurated the event and [visited](#) two smart protein startup booths within the pavilion. GFI India also moderated a conference panel discussion on alternative proteins as a climate solution to secure a just food supply.
- GFI policy team members met with the Illinois Fermentation and Biomanufacturing ([iFAB](#)) technology hub at the University of Illinois Urbana-Champaign,** which the Biden Administration recently [designated](#) as one of the nation's 31 new Tech Hubs to boost innovation and workforce development. GFI will support the hub's endeavor, which seeks to scale precision fermentation to convert underutilized corn feedstocks into high-value, customized alternative proteins, food ingredients, materials, chemicals, and more. iFAB's leader and CEO Ilya Sheyman were named to the [Illinois Alternative Proteins Innovation Task Force](#).
- GFI APAC led two presentations at the [Global Summit on the Future of Future Food](#) (a food security-focused conference in Thailand)** convened by Thailand's National Center for Genetic Engineering and Biotechnology and the United Kingdom's Institute for Global Food Security. Their [session](#) on developments in the alternative protein sector highlighted alternative proteins as a food security and climate solution, and their [session](#) on regulatory developments emphasized the urgency for increased public funding for alternative protein science and scaling.



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

- GFI grantee Dr. Ximing Zhang from Zhejiang University (one of the top engineering and science universities in the world) published a paper, "[The Challenges of Bringing Cultured Meat to the Market](#)" in *Nature Reviews Bioengineering* in which he shares the importance of alliances and partnerships across government, academia, and industry to address challenges in scale-up, costs, financing, and regulatory considerations. Dr. Zhang got his start in alternative proteins via GFI's research grant program, and his team's core research now includes a focus on cultivated meat and fermentation.
- Principal Scientist Elliot Swartz, Ph.D., hosted this month's Cultivated Meat Collaborative [seminar](#) featuring presentations from [Fermbox](#) and [Extracellular](#) about their co-development and manufacturing solutions designed for the cultivated meat industry.
- Academic Community Manager Nathan Ahlgrim, Ph.D., Lead Scientist Adam Leman, Ph.D., and Senior Scientist Lucas Eastham, M.Sc., presented at a [careers webinar](#) hosted by The Society for Industrial Microbiology and Biotechnology that made the case for reimagining meat production and the need for microbiologists and biotechnologists in the alternative protein ecosystem.
- GFI Europe Research and Grants Manager Stella Child, Ph.D., spoke to approximately 170 yeast scientists on a panel at the International Specialised Symposium on Yeast in Adelaide, Australia. She shared the potential of yeast as a fermentation platform for plant-based ingredients.
- Director of Science & Technology Matt Hotze, Ph.D., participated in a panel on alternative proteins at a [technology summit](#) hosted by the [Institute for Integrative and Innovative Research](#), a Walton family-endowed research center at the University of Arkansas, and spoke with the center's vice chancellor of innovation and executive director about alternative protein opportunities.
- Lead Scientist Claire Bomkamp, Ph.D., and Science Content Lead Renee Bell hosted a Fish & CHIPS (Collaborative Huddle for Ideation & Problem Solving) event focused on data sharing and IP, software and modeling, and scale-up challenges. Thirty-three cultivated seafood stakeholders attended the event, the majority of whom were academic and industry scientists.
- Senior Lead Scientist Nikhita Mansukhani Kogar, Ph.D., participated in the University of Minnesota Plant Protein Innovation Center's (PPIC) Process Scale-Up Workshop, which brought together experts from all parts of the value chain and covered all three alternative protein technology pillars.
- Lead Scientist Prier Panescu, Ph.D., moderated the November Science of Alt Protein [seminar](#) featuring GFI grantee Dr. Alejandro Marangoni of the University of Guelph. Dr. Marangoni discussed the development of a high-protein, stretchy cheese made from simple, plant-based ingredients.
- The Alt Protein Project (APP, GFI's university chapter program with 53 chapters all over the world) often gives us reason to celebrate. Check out this fun ["where are they now" blog](#) about two former APP leaders who are now working professionals in the alternative protein industry.

GFI influences the public sector to support alternative proteins

- SciTech Manager Yeshe Liang and Director of Strategic Partnerships Grace Liu of GFIC, an independent strategic partner that does mission-aligned work in mainland China, attended a

two-day, invite-only stakeholder [roundtable meeting](#) held by the United Nations Food and Agriculture Association and the China National Center for Food Safety Risk Assessment in Shanghai to discuss the regulatory approval processes for cultivated meat and precision fermentation. Forty-six people attended the meeting, and presenters from nine different countries shared their experiences with preparing dossiers and their approaches to minimizing food production safety risks. The group also visited CellX's facilities in Shanghai and tasted dishes made with cultivated meat and mycelium.

- GFI Europe Senior Public Affairs Manager Ivo Rzegotta presented policy recommendations for Germany at a parliamentary breakfast about alternative proteins in the Bundestag. GFI's messaging was endorsed by most of those in attendance, including a dozen MPs from across the political spectrum and staffers in the Bundestag. GFI Europe also partnered with the business association BalPro and ProVeg to hold a first-of-its-kind alternative protein briefing for staffers of four federal ministries, members of parliament from each of the top four political parties, and state representatives.
- Ivo [spoke](#) at an event in Berlin that was organized by the association that represents German farmers who are growing protein and oil crops. The event was attended by policymakers and farmers' organizations that want to transition to growing plant-based food.
- GFI APAC Senior SciTech Analyst Dean Powell, Ph.D., took part in the Singapore Food Agency's Novel Food Regulatory Roundtable and facilitated group discussions on production process safety for cultivated meat, building a common understanding of regulatory requirements and information gaps and facilitating international regulatory coordination.
- Following multiple rounds of written comments submitted by GFI, the National Climate Assessment (a congressionally mandated report by the U.S. Global Change Research Program) [chapter on Agriculture, Food Systems, and Rural Communities](#) included alternative proteins for their potential to reduce greenhouse gas emissions in the food system.
- Legislative Specialist Drake Jamali helped orchestrate a tour for staff of the California Legislature at the University of California (UC), Davis's Robert Mondavi Wine and Food Center to better understand the benefits of a dedicated research center for food and beverage technologies. The staffers were intrigued by the center and the amazing work the UC Davis [Cultivated Meat Consortium](#) is doing with state funds.
- GFI Europe Policy Manager Seth Roberts presented at the Lithuanian [AgriFood Forum](#) conference at which many high-profile government officials were in attendance. He followed up with the Special Advisor to the Ministry for Economy and Innovation to share some revised [policy recommendations](#).

GFI influences the for-profit sector to prioritize alternative proteins

- GFI Europe Senior Corporate Engagement Manager Carlotte Lucas and Corporate Engagement Lead Marika Azoff hosted the November LINC roundtable focused on the opportunities and risks of blended meat. This was the most well-attended LINC gathering to date and included strategists from companies like Cargill, ADM, Pilgrim, IFF, and DSM-Firmenich who spoke openly and collaboratively about how the industry might develop this category.
- GFI APAC SciTech Specialist Maanasa Ravikumar, Ph.D., traveled to South Korea to present at two events supported by the Bühler Group. At the Seoul Tech Seminar, which brought together key industry players in Korea's emerging alternative protein industry, she delivered a presentation on

cellular agriculture industry insights that was covered in [local news articles](#). Maanasa was also invited to join the teams from Bühler, Eridia, and Cultured Hub for a knowledge-sharing dinner to better understand Korea's landscape and explore potential synergies with GFI APAC.

- Maanasa spoke at an event hosted by the Gyeongbuk Province, Pohang City, and the Gyeongbuk Economic Promotion Agency at POSTECH University, which drew 150 attendees. She delivered a keynote presentation to an audience of high-ranking government officials, regulatory representatives, VCs, startups, journalists, academics, and students. The media took notice, with GFI making its [Korean TV debut](#).
- GFI Europe Managing Director Alex Mayers led a presentation on the alternative protein landscape and regulatory considerations at the [Future of Nutrition Summit](#) in Germany, an event that's part of Food Ingredients Europe, the world's largest gathering of food and beverage ingredient buyers and suppliers.
- GFI Europe Policy Officer Pauline Grimmer presented the initial findings of the precision fermentation messaging research project to a C-suite audience of French food companies in Paris at an invite-only conference organized by Accenture France on the future of food.
- Startup Innovation Lead Audrey Spence authored a [blog post](#) about the importance of trade associations and working groups in the alternative protein industry, which includes [a database](#) of over 20 known trade associations.
- Audrey hosted the November Business of Alt Protein [seminar](#) on side streams and upcycling for alternative proteins, which featured a presentation from [GEA](#) on developing solutions for the valorization and upcycling of co-products and a panel discussion with companies leveraging side streams in their business models.
- GFI APAC Corporate Engagement Manager Jennifer Morton, GFI APAC Innovation Associate Valerie Pang, and GFI APAC Research Associate Divya Gandhi conducted a [webinar](#) on the inaugural APAC State of the Industry Report and penned a [blog post](#) with a summary of key takeaways. Valerie also delivered a workshop on the report's findings for venture capital fund Big Idea Ventures' accelerator program.
- GFI Europe released a [nutrition report](#) that reviews the latest research about plant-based meat and health and includes key recommendations for areas of future study and product development. The team also shared a rundown on [the science of ultra-processed foods](#), answering common questions related to plant-based meat.
- GFI Europe Policy Manager Linus Pardoe spoke on a panel about the future of alternative proteins at [Sustainable Foods London](#), a conference for stakeholders within the food and beverage supply chain that focuses on sustainability challenges.



GFI positions alternative proteins as a scalable solution to global challenges

- Director of International Engagement Stephanie von Stein served as the alternative proteins expert in a policy [webinar](#) hosted by CGIAR (a network of agricultural research universities) that highlighted key interventions required to support the Breakthrough Agenda Report 2023. This report is an annual collaboration between the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), and the United Nations Climate Change High-Level Champions focused on supporting stronger international collaboration to drive faster reductions in global greenhouse gas emissions. CGIAR considers alternative proteins an integral part of two out of the five vectors they flag as requiring global cooperation.
- As part of GFI APAC's continued engagement with the Islamic Religious Council of Singapore (a government body under the Culture, Community, and Youth Ministry), Policy Specialist Ankur Chaudhary and Maanasa presented at a Council-convened meeting for scholars and students about global trends in cultivated meat. They highlighted the importance of cultivated meat for the halal market, alignment with Islamic values, and the need for clear certification guidelines.
- Senior VP of Policy Jessica Almy, J.D., represented GFI at the Advancing Nutrition Science Workshop, an event organized by the President's Council of Advisors on Science and Technology in response to the White House Conference on Hunger, Nutrition, and Health last September. The workshop brought together key industry and academia stakeholders to advise the Administration on a coordinated long-term nutrition and health strategy that emphasizes equitable access.

Top media mentions:

- Founder & President Bruce Friedrich was invited by former Trump Department of Justice spokesperson Sarah Isgur to appear on the NPR public radio program *Left, Right, and Center* to [talk about alternative proteins](#) (starting at the 35-minute mark). Bruce noted the Center for Strategic and International Studies (CSIS) report that highlights the importance of the United States leaning into alternative protein technology and shared, "McKinsey modeling said that by 2050, alternative proteins could add \$700 billion to the global economy and create 83 million jobs, and that's why the CSIS report leans into the various climate, food security, and global health benefits, but also leans in on economic competitiveness."
- *Business Standard*, a top national newspaper in India, published [an article](#) about Nestlé's plans to launch plant-based products in the country. The article referred to GFI India as, "the central expert organization, thought leader, and convening body in the alternative protein sector," and relied heavily on data from the team's recently published State of the Industry Report to contextualize Nestlé's efforts.
- GFI Brazil Corporate Engagement Director Raquel Casselli shared [an overview](#) of the plant-based market as a guest on the podcast *Where Does What I Eat Come From* produced by g1, the news portal of the biggest media outlet in Brazil.
- The Associated Press published "[The Protein Problem](#)," a multimedia series featuring articles on plant-based and cultivated meat, and quoted GFI VP of Policy for Asia Sam Lawrence and Bruce. In the [article on cultivated meat](#), Bruce noted: "If we don't have products that taste the same or better and cost the same or less, people are not going to switch."
- GFI Israel CEO Nir Goldstein highlighted food security and alternative protein technology on multiple Israeli news outlets this month. For a [segment](#) on the leading news channel N12, Nir

spoke about the importance of government prioritization and strategic technology for food security. He was also quoted in [an article](#) by *TheMarker*, Israel's most popular business newspaper, about the current challenges of the Israeli food tech sector, noting that although investment in local food tech companies in 2023 is expected to decrease from the highs of 2020-2021, the sector's vitality is evident in the steady formation of startups, averaging over 10 new alternative protein companies per year.

- GFI APAC Managing Director Mirte Gosker and GFI Israel VP of Strategy and Policy Alla Voldman-Rantzer were quoted in [an article](#) by *Vox* about the importance of consortia to accelerate the cellular agriculture industry. Mirte spoke about how Singapore is scaling up cultivated meat production through international collaborations, and Alla noted, "A platform that is funded by the government is probably the only way that one could put companies, industry partners, and academic groups together to work on collaborative R&D budgets."

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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

