

GFI's GLOBAL HIGHLIGHTS

August 2023

The top highlights:

• GFI was thrilled to welcome 24 new student groups to the Alt Protein Project, GFI's global university chapter program, bringing the

total number of groups to 53. This new cohort adds representation from Switzerland, Turkey, Portugal, Brazil, Malaysia, and Japan. GFI's <u>blog post</u> covers all the details about this incredible cohort of student leaders who will keep propelling the sector toward our shared vision of a sustainable and just food system. Don't miss the <u>testimonial video</u> featuring student leaders sharing their ambitions.



- The UK Biotechnology and Biological Sciences Research Council (BBSRC) and Innovate UK announced a five-year, £15 million investment for the development of an Alternative Proteins Innovation and Knowledge Centre that will support collaborative research partnerships between businesses and academic researchers. The announcement builds on their earlier £16 million call on novel low-emission foods like plant-based and cultivated meat. GFI Europe has been closely engaging with BBSRC and Innovate UK for two years on funding priorities, which led to alternative proteins being included in their strategic plans as a priority area for co-investment.
- Illinois Governor JB Pritzker signed into law legislation establishing the <u>Alternative Protein</u> <u>Innovation Task Force</u>, the first standalone legislation promoting alternative proteins to become law in the United States. The legislation follows several discussions between GFI and Illinois public officials on the need for public funding for alternative protein research and development. The task force will bring together experts from academia, biotechnology, agribusiness, and nongovernmental organizations to prepare a report on how Illinois can foster the alternative protein industry.
- Prime Minister Benjamin Netanyahu and New York City Mayor Eric Adams <u>attended</u> a food tech exhibition on alternative proteins in Jerusalem co-coordinated by GFI Israel. In addition to helping organize the exhibition, the team provided the Prime Minister's Office with key messaging for the event. The Prime Minister and Mayor tried various alternative protein products, including cultivated steak and plant-based kebabs.
- **GFI Europe published a** <u>UK-focused report on sustainable proteins</u>. The report is a deep-dive review of public research and development, private sector activity, and potential future industry clusters. Among the recommendations is a call for the government to invest £390 million in research and development by 2030.

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 India team members attended the <u>inaugural meeting</u> of the Sectoral Expert Committee on Biomanufacturing: Smart Proteins, under the aegis of the Department of Biotechnology, Government of India. GFI India plays a role in all four alternative protein sub-groups formed by the committee and contributed detailed submissions on the current landscape, challenges across the ecosystem, and strategies to address identified gaps.
- GFI Europe Senior SciTech Manager Seren Kell was in Lyon, France to present opportunities in alternative protein research to scientists in the sustainable protein field at the <u>Joint International</u> <u>Congress on Animal Science</u>, the world's largest animal sciences scientific conference.
- GFI APAC SciTech Manager Wasamon Nutakul, Ph.D., and GFI APAC Policy Specialist Ankur Chaudhary joined a Thai focus group developing a regulatory framework for the safety assessment of cultivated meat, where Ankur spoke about regulatory and policy developments in Singapore, the United States, and the European Union. The meeting was organized by the National Science and Technology Development Agency in Thailand and included researchers from Thai Union, Charoen Pokphand Foods (CPF), the Thai Food and Drug Administration, the Department of Livestock Development, and top-tier Thai associations and universities.
- GFIC, an independent strategic partner that does mission-aligned work in mainland China, launched an open-access <u>Chinese Alternative Protein Research Network</u>, in which collaborators can search for expert teams from domestic university research institutes that are conducting research on plant-based, cultivated, and fermentation-derived proteins.
- GFIC's first-ever summer camp event brought together 14 handpicked students from top universities and research institutes across China. The students visited the laboratories of two local companies—Dongsheng Biotech and Meta Meat—and enjoyed technical presentations by cultivated meat startups, research teams, and more.
- Associate Director of Scientific Ecosystems Amy Huang hosted the August Science of Alt Protein <u>seminar</u> featuring Dr. Brentan Alexander and Crystal Bleecher, P.E., of <u>Synonym</u>. They discussed the benefits of Scaler, a new techno-economic analysis tool for fermentation designed to empower alternative protein companies with a better understanding of the unit economics required to achieve mass-market viability.
- GFI APAC co-hosted a <u>webinar</u> with Big Idea Ventures focused on halal certification for cultivated meat. The panel discussion featured GFI APAC Senior SciTech Analyst Dean Powell, Ph.D., alongside Islamic religious scholar Dr. Mohammad Naqib Hamdan from Universiti Teknologi Malaysia and halal business strategist Dewi Hartaty Suratty from Warees Halal Limited.
- Senior Science Content Specialist Renee Bell hosted this month's Cultivated Meat Collaborative <u>seminar</u> (our monthly webinar for cultivated meat industry leaders), which featured presentations from <u>Cocoon Bioscience</u> and <u>Sticta Biologicals</u>. These companies produce recombinant proteins and other ingredients to accelerate the cultivated meat industry from Spain and Chile, respectively.
- GFI Israel Director of SciTech Michal Halpert, Ph.D., and consultant Michelle Hauser held a computational biology and alternative proteins seminar in collaboration with the Edmond J. Safra

Center for Bioinformatics at Tel Aviv University.

- GFI Israel Senior Scientist Tom Cohen Ben-Arye, Ph.D., held seminars and meetings about opportunities in alternative proteins with faculty and students at two Japanese universities: Waseda University and The University of Tokyo.
- Amy accepted an invitation to serve on the InnovATEBIO National Biotechnology Education Center advisory board and work with them to incorporate alternative protein curricula into their network of 137 community colleges and workforce development partners.
- GFIC SciTech Consultant Minqi Wang hosted a <u>webinar</u> on improving the health and sustainability of the food supply with Dr. Julian McClements, distinguished professor at the Department of Food Science at the University of Massachusetts Amherst. Dr. McClements spoke on regional scholarly and public perceptions of new proteins and the future direction of food research.

GFI influences the public sector to support alternative proteins

- GFI Brazil Policy Specialist Alysson Soares spoke at a <u>public hearing</u> at the Environment and Sustainable Development Committee of the House of Representatives in Brazil about the potential of alternative proteins to mitigate climate degradation and boost the economy. Following the hearing, representatives from the Ministry of Health approached GFI Brazil to discuss alternative proteins' potential to mitigate zoonoses.
- Associate Director of Regulatory Affairs Laura Braden, J.D., and Senior Regulatory Attorney Maddie Cohen, J.D., worked with co-counsel Animal League Defense Fund and local Texas counsel to file a complaint in the U.S. District Court for the Western District of Texas on behalf of Tofurky. The lawsuit challenges Texas's <u>label censorship</u> law enacted in May and set to go into effect in September. Our complaint explains that the law imposes vague and burdensome requirements on producers of plant-based and cultivated meat products, potentially forcing companies to redesign existing product labels in order to sell their products in Texas, and challenges the law for violating multiple provisions of the U.S. Constitution.
- GFI Brazil had a strong presence at the Food Ingredients South America event in São Paulo, the largest fair of additives and ingredients in South America. Team members participated in panels focused on alternative protein opportunities, consumer perceptions, regulatory outlooks, and the upcycling of native plant species. In parallel, GFI Brazil CEO Gus Guadagnini and GFI Brazil Corporate Engagement Director Raquel Casselli gave the director of the Department of Inspection of Products of Plant Origin a tour of the R&S Blumos plant, one of Brazil's top producers of plant-based ingredients.
- To support an initiative to equalize the German VAT rate for plant-based milk and cow's milk, GFI Europe Senior Public Affairs Manager Ivo Rzegotta and GFI Europe Public Affairs Specialist Lia-Alexis Hildebrandt developed a <u>two-pager with key arguments</u> and distributed it widely across the German plant-based foods sector. The paper is being used by allied NGOs and industry actors who have shared it with service cooperation partners to approach members of parliament in their respective constituencies.

GFI influences the for-profit sector to prioritize alternative proteins

• Director of Corporate Engagement Tessa Hale gave a plenary on reimagining proteins at the U.S. Department of Energy's Industrial Efficiency & Decarbonization Office (IEDO) Stakeholders

Workshop: Decarbonization Challenges and Priorities across the U.S. Food and Beverage Industry. Her presentation connected to the IEDO's overall mission of enabling further decarbonization of this industrial sector. Attendees represented industry, government, and academia.

- Research Analyst Ben Pierce and Corporate Engagement Lead Marika Azoff published a <u>whitepaper</u> covering foodservice market sales data and insights for plant-based meat, along with an <u>accompanying webinar</u>.
- GFIC SciTech Manager Yeshi Liang and GFIC Public Relations Manager Phoenix Jiang attended a <u>pilot production facility launch</u> event hosted by cultivated meat startup CellX. This pilot plant, the first of its kind by a domestic company in mainland China, was built jointly with Tofflon Group—a leading bioreactor manufacturer. During the event, CellX held a tasting of three cultivated meat dishes: a BBQ skewer, meat floss tapas, and mapo tofu with minced meat.
- GFI Brazil, in partnership with the innovation directorate of the Federal University of Minas Gerais, organized the event Opportunities in Alternative Proteins: Research, Innovation, and Career for students and researchers. GFI Brazil Corporate Engagement Specialist Guilherme Vilela presented an opening lecture on the alternative protein market and development chain and a closing lecture on opportunities in research and business innovation.
- Startup Innovation Lead Audrey Spence hosted the August Business of Alternative Protein <u>seminar</u> on Life Cycle Assessments (LCAs) with Foodsteps, a UK-based startup that helps food businesses measure and communicate their environmental impact, and Tom Chapman, ESG and impact management expert and advisor. The seminar provided an overview of GFI's newly released LCA guide and reviewed LCA best practices.
- GFI APAC Innovation Associate Valerie Pang organized a GFIdeas APAC <u>webinar</u>, "Branding your alt protein startup," featuring guest speaker Zoran Svetličić, a partner of branding firm Shift. Zoran shared emerging patterns and practical case studies of brands in Asia and the United States.
- Valerie also hosted a <u>webinar</u> with guest speakers from the Healthy Marketing Team, an international specialist agency for marketing and branding in food, health, and sustainability. They presented expert marketing tips for a successful alternative protein brand in APAC and shared market trends and consumer and product insights.

GFI positions alternative proteins as a scalable solution to global challenges

- GFI Europe published a <u>cultivated meat handbook for journalists</u> (also available in <u>German</u>). The handbook is a short guide with key facts, statistics, and resources to help journalists cover cultivated meat developments with confidence.
- GFI Communications teams around the globe launched new initiatives to increase access to GFI's information and resources: (1) GFI's new <u>LinkedIn Newsletter</u>, featuring high-performing content from the e-newsletter Reimagining Protein; (2) GFI Brazil's new series of reels (across <u>Youtube</u>, <u>Instagram</u>, and <u>TikTok</u>) about the alternative protein industry and GFI's theory of change; and (3) GFI India's new weekly <u>Science of Smart Protein series</u>, designed to simplify alternative protein concepts and build consumer awareness.



Top media mentions:

- Senior VP of SciTech Liz Specht, Ph.D., was a guest on WAMU's 1A podcast for an <u>episode about</u> <u>cultivated meat</u> alongside UPSIDE Foods CEO Uma Valeti and GOOD Meat CEO Josh Tetrick. Liz's comments begin at the 33:50 mark: "Right now animal agriculture causes about 20 percent of all global greenhouse gas emissions... We're talking about a huge fraction of climate that is attributable to the current way we produce meat... A recent study by Oxford University found that even if fossil fuel emissions were eliminated immediately, the world cannot meet its Paris Agreement targets without shifting away from conventional animal agriculture."
- Nikkei Asia—a top regional media outlet owned by the world's largest business newspaper, *The Nikkei*—published an <u>opinion column</u> by GFI APAC Senior Communications Manager Ryan Huling. The piece spotlights a study by Asia Research & Engagement (ARE) outlining how rapidly Asian countries must incorporate alternative proteins to hit their climate targets. Excerpt: "ARE determined that decarbonizing Asia's protein system will require peaking industrial animal production no later than 2030, while simultaneously ramping up development of alternative proteins... Alternative proteins will need to account for more than half of all protein production by volume by 2060."
- GFI APAC Managing Director Mirte Gosker was prominently featured in an <u>article by CNBC</u> <u>International</u> about the ARE study: "If nations prioritize the manufacturing and development of alternative proteins, the climate payoff could be colossal." This story was syndicated around the world, including in <u>Indonesia</u>, <u>Korea</u>, <u>Thailand</u>, and <u>Vietnam</u>.
- Mirte was quoted in a <u>Bloomberg article</u> about the game-changing potential of fermentation-derived proteins. Excerpt: "Given the need to meet climate change pledges by large food companies, there's still reason to be positive about the precision fermentation industry's longer-term chances,' says Mirte... She argues that the disappointing financial results of some plant-based companies may ultimately even help fermentation businesses that make products that are closer to the protein from cows... 'Precision fermentation ingredients will be the solution to create products good enough for consumers to start buying.'"
- Yeshi and Phoenix were <u>interviewed</u> by Jiemian News—one of China's top news outlets—about the status of domestic cultivated meat production and the challenges the industry must overcome. Translated excerpt: "GFI Consultancy, a China-based consulting firm specializing in the alternative protein industry, told Jiemian News that although there are not many companies in the field of cultivated meat in our country, they have entered the top 10 in global financing rankings in 2022."
- GFI Europe Research Support Manager David Hunt talked about cultivated meat on a Create the Future <u>podcast episode</u>: "Cultivated meat can reduce the climate impact of meat by up to 92 percent and reduce air pollution by up to 94 percent. It can also use 90 percent less land, and that means that all that land can be freed up for things like biodiversity projects or more sustainable ways of farming that are not so intensive and not so polluting."
- A Crítica, the largest newspaper in the state of Amazonas, published an <u>opinion piece</u> by GFI Brazil Policy Director Alexandre Cabral on the potential of cultivated meat to aid in the preservation of Amazonian endangered species. Translated excerpt: "Promoting the development of the cultivated meat ecosystem in Amazonas can be crucial to insert the state into the sustainable development circuit so desired by governments and encouraged by international forums." Cabral was also interviewed and quoted in a follow-up <u>article</u>.

- Lead Scientist Claire Bomkamp, Ph.D., was quoted in a *Fast Company* article about cultivated seafood: "'The seafood industry is contributing to climate change and it's also threatened by climate change,' Bomkamp said. 'As oceans get warmer, acidification happens, and it becomes really a challenge to think about how we are going to even continue producing the seafood that we're producing today. So we're really talking about a problem of: How do we produce seafood at scale in a way that's environmentally conscious?'"
- Principal Scientist Elliot Swartz, Ph.D., was quoted in an <u>Axios article</u> about cultivated meat. Excerpt: "Cultivated meat is 'not a silver bullet to all of the problems in the food system' but will likely play a growing role over time, Swartz said. He likens the possible trajectory to that of renewable energy or electric vehicles. But 'on animal welfare issues, this is a slam-dunk win.'"

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

Sincerely,

Bruce Friedrich President and Founder

