GFI’s GLOBAL HIGHLIGHTS
February 2023

The top highlights:

● Nearly six years after GFI first petitioned the agency, the Food and Drug Administration (FDA) issued draft guidance on plant-based milk labeling. The guidance agreed with GFI’s longstanding position that consumers understand the difference between plant-based milk and cow’s milk, that they choose plant-based milk because it isn’t cow’s milk, and that plant-based milk products that use the term “milk” in their names do not purport to be cow’s milk. In this respect, the draft guidance is a win for plant-based milks: the guidance would allow products to continue to use the term “milk.” As Senior Regulatory Attorney Maddie Cohen (pictured, right) explained in press coverage of the guidance, however, FDA should omit the suggestion that companies include front-of-pack statements about nutrient content that make a direct comparison between their plant-based milk product and cow’s milk. FDA already requires key nutrients to be included on the Nutrition Facts panel.

● GFI India Policy Associate Radhika Ramesh and GFI India Senior Innovation Specialist Nicole Rocque presented on the opportunities offered by the alternative protein sector at a meeting organized by India’s Ministry of Science and Technology focused on creating a national framework on bio-manufacturing (similar to the U.S.’s National Strategy on Advanced Manufacturing, which includes alternative proteins). GFI India is actively promoting alternative protein as a focus sub-sector for inclusion.

● GFI Israel CEO Nir Goldstein was invited by UAE’s Minister of Climate Change and Environment Mariam Almheiri to serve as a panelist in a session titled “Food Security Governance: Innovative Pathways” at the World Government Summit in Dubai, an annual knowledge exchange between government officials, thought leaders, policymakers, and private sector leaders. The summit was attended by 10 heads of state and 140 ministers from around the world. Nir shared insights regarding the importance of alternative proteins as a key component when addressing food security challenges.

● Doris Lee, CEO of GFIC, an independent strategic partner that does mission-aligned work in mainland China, served on the steering committee and contributed to a new scoping study titled “Accelerating a Shift to Health and Sustainable Diets in China,” which was published this month by the Food and Land Use Coalition and the Meridian Institute. The report profiles GFIC and highlights alternative proteins as a solution for improving health and minimizing adverse environmental impacts from food production.

● GFI published our Year in Review 2022 to recap the great progress we made in the past calendar year. Please take a look and pass it along!
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 GFI SciTech team curated the most impactful research papers, patents, and ecosystem updates in the alternative protein field in the third installment of the triannual State of the Science Snapshots series, which includes coverage of technical advancements as well as developments in the broader scientific ecosystem, including noteworthy funding announcements and talent development initiatives.

- GFI started accepting applications for the Alt Protein Project, GFI’s college chapter program, and led two information sessions attended by more than 50 guests (recordings available [here](#)). The application deadline is March 31st.

- Lead Scientist Adam Leman, Ph.D., gave a talk focused on alternative protein fermentation efficiency in the context of the bioeconomy at large at the technical track of the 3rd Fermentation-enabled Alternative Protein Summit.

- GFI APAC SciTech Manager Wasamon Nutakul, Ph.D., delivered a presentation on “Proteins and starch application in alternative proteins” and was a featured panelist at two events held in Bangkok this month: the 11th annual Starch Value Chain Asia conference and the 2nd annual Sustainable Plant Based Protein & Fermentation Solutions Asia summit. In Asia, the big starch sidestreams are from mung bean, cassava, and sugarcane—all of which are ripe to be evaluated for their protein content and potential utilization in alternative protein production.

- Academic Community Coordinator Hanna Barlow authored a blog on diversity in the alt protein space featuring two Alt Protein Project student leaders–Emily Yao from Johns Hopkins University and Gauri Undegaonkar from Denmark Technical University.

- GFIC held a virtual student camp called AltProTeen that was attended by 40 hand-picked students considering careers in the alternative protein sector. The event included deep-dive workshops, academic presentations, guest lectures from local alt protein startups like CellX, brainstorming sessions about fermentation technologies, and even a plant-based meat cooking and tasting session. The students each showcased a case study about proposed new formats of alt proteins that could perform well in China.

- GFI APAC Innovation Associate Valerie Pang delivered a presentation at the Nanyang Technological University describing how Singapore is addressing global food and environmental challenges through alternative proteins.

- GFI India SciTech Specialist Chandana Tekkatte delivered a talk on “Scaling up Precision Fermentation: Strategies for Alternative Protein Production” at an online seminar organized by the Association of Biotech Led Enterprises India. More than 120 participants from various biotech industries and startups from across India attended.

- Associate Director of Scientific Ecosystems Amy Huang gave a talk to 80 food scientists and technologists from the Southern California Institute of Food Technologists. Many attendees were faculty members at SoCal universities and scientists at local food tech companies interested in growing their alternative protein investments.
Senior Scientist Faraz Harsini, Ph. D., hosted a booth at the Biophysics Annual Conference, the world’s largest gathering of biophysicists and protein engineers, to bring attention to alternative proteins as a piece of the toolkit to address global public health threats and biomedical sciences.

Lead Scientist Elliot Swartz, Ph.D., hosted this month’s Cultivated Meat Collaborative seminar (our monthly call for cultivated meat industry leaders), which featured a presentation from Dragon Bio, a company that aims to provide a variety of cell lines from different species and lineages to the cultivated meat industry.

Amy hosted 181 attendees at the February Science of Alt Protein seminar, which featured GFI grantee Dr. Kyria Boundy-Mills of UC Davis. Kyria shared her research on yeasts that convert inexpensive substrates into oils, including substitutes for animal fat and tropical oils.

GFI influences the public sector to support alternative proteins

GFI Europe Senior Policy Managers Ellie Walden and Alex Holst, together with GFI Europe Policy Officer Pauline Grimmer met with four officials from the European Commission’s Agricultural Department to discuss the EU Commission’s forthcoming work on a European Protein Strategy. As a follow-up, Ellie contributed to a stakeholder roundtable for the European Parliament's work on the Protein Strategy report that was organized by a Swedish Member of Parliament (MEP) from the Centrist/Liberal party.

Legislative Specialist Drake Jamali met with several members of the Illinois State Legislature and attended the Illinois State of the State where Governor J.B. Pritzker unveiled his goals for the annual budget. Drake discussed public funding for alternative protein research and development with several public officials, receiving significant interest from key policy makers at the state and local levels. Drake also joined Representative Lakesia Collins and Senator Javier Cervantes on a facility tour of Chicago’s first cultivated meat company, Clever Carnivore.

GFI Europe Senior Policy Manager Acacia Smith moderated a workshop on plant-based food opportunities and research and innovation needs with 12 officials from the European Commission and 7 external speakers, bringing together diverse perspectives from farmers, consumers, researchers in nutrition and sustainability, crop breeders, and EIT Food. This workshop was co-organized by GFI under the platform of the European Alliance for Plant-based Foods, which has proven again to be a very effective way of reaching institutional contacts.

Lead Regulatory Counsel Laura Braden, J.D., and Policy Paralegal Shira Fischer drafted and submitted a comment in response to the White House Office of Science and Technology Policy’s recent Request for Information on Identifying Ambiguities, Gaps, Inefficiencies, and Uncertainties in the Coordinated Framework for the Regulation of Biotechnology. The comment outlines the existing statutory authorities that make FDA and the U.S. Department of Agriculture well-situated to address any risks associated with plant molecular farming and foods derived from that process,
and recommends that the White House and FDA prioritize the issuance of FDA’s planned guidance for its premarket consultation process for cultivated meat.

- GFI Israel CEO Nir Goldstein held meetings with two ministers of the recently formed Israeli government—Minister of Foreign Affairs Eli Cohen and Minister of Innovation, Science, and Technology Ofir Akunis (pictured, right). Nir presented both ministers with GFI Israel’s Alternative Proteins National Policy Plan, presented the case for alternative proteins as a strategic national asset, and discussed specific plans prepared by GFI Israel’s policy department tailored to their respective ministries. The Ministers were both keen to increase investments in the field, including research grants and government backing for alternative proteins research centers, as well as promoting additional bilateral agreements in the field.

**GFI influences the for-profit sector to prioritize alternative proteins**

- Investor Engagement Manager Sharyn Murray and Corporate Engagement Project Manager Maille O’Donnell drafted and released GFI analyses of 2022 investment data in the form of the *Catalyzing Investment Newsletter* and a related blog post. These resources support investors and companies in making sense of last year’s funding environment.

- Startup Innovation Specialist Audrey Gyr moderated the Business of Alt Protein Seminar, “Developing effective corporate partnerships,” featuring senior leaders from ADM, Danone, Kraft Heinz, MISTA/Givaudan, and Ingredion. Over 200 live attendees from more than 20 countries (and as many as 500 attendees via the recorded webinar) learned, straight from some of the most successful food companies in the world, how and why to leverage these critical collaborations.

- GFI India Science & Technology Fellow Padma Ishwarya delivered a technical talk at the International Conference on Pulses. Padma’s talk emphasized that India has the potential to be the epicenter of millet and pulse protein-based meat, egg, and dairy products. GFI India also participated as a knowledge partner for the *Pulses Conclave 2023* organized by the India Pulses and Grains Association, which brought together policymakers, researchers, promotional agencies, processing houses, exporters, importers, traders, and other experts in the pulses industry. GFI India Senior Innovation Specialist Nicole Rocque gave a presentation on the alternative protein landscape in India and GFI India Research Associate Husain Kurawadwala moderated a panel discussion with Buhler, USA Dry Pea & Lentil Council, Ingredion, and Nirman Nutraceuticals.

- Elliot gave an opening 20-minute talk to multidisciplinary leaders at Merck KGaA, Darmstadt, Germany as part of their roadmapping event for cultivated meat.

- GFI’s Corporate Engagement team met with nine investment firms in February, including J.P. Morgan Asset Management’s new Climate Tech Fund, to discuss GFI investor support and resources as later-stage commercial alternative protein companies fall within the fund’s mandate.

- In partnership with GFI Brazil, the Israel Trade and Investment Office (part of the Israeli consulate in Brazil) hosted a startup pitch day, “Alternative Proteins and Israeli Fermentation Technologies,” which included a presentation on the Brazilian alternative protein fermentation ecosystem by GFI Brazil Innovation Specialist Guilherme Oliveira. Presentations were also given by Israeli startups
Nextferm, Remilk, Eggmented Reality, Kinoko Tech, and Yofix in which each discussed their business model, technologies, and openness to interacting with the Brazilian industry and market.

Top fermentation companies and investors interested in alternative protein fermentation technologies were in attendance.

- GFI Israel released the State of Alternative Proteins 2023 Report, which reveals that for the second year in a row, Israeli alternative protein companies ranked second globally in terms of investments, accounting for 15 percent of total global investments for 2022. In addition, investments in the field have crossed the billion-dollar mark over the last two years. Plant-based products experienced significant growth in Israel, with sales increasing eight times more compared to equivalent animal-based products.
- GFI Europe Corporate Engagement Manager Carlotte Lucas, GFI ESG contractor Tom Chapman, and Sharyn presented the GFI & FAIRR Alternative Proteins ESG Reporting Frameworks to multiple senior professionals and a life cycle assessment expert at IFF, a major ingredients company with an alternative proteins business. IFF plans to consider how to use the framework for its own reporting and will share the framework with its customers.
- GFI Israel Director of Innovation and Business Engagement Aviv Oren gave a presentation at the Swiss-Food Talk – Future Food event dedicated to food innovation. The event had over 50 participants from global corporations such as Bayer, Syngenta, and Nestlé, as well as journalists and policymakers. Aviv also presented the alternative proteins ecosystem and opportunities to a group of executives from Global Nestlé as part of their trip to Israel.

GFI positions alternative proteins as a scalable solution to global challenges

- In a push to reach new audiences across Latin America, GFI Brazil published their 2022 annual report in three languages for the first time: English, Spanish, and Portuguese.

Top media mentions:

- Tagesspiegel, one of Germany’s biggest newspapers, published an interview with Bruce during which he noted that the “Paris climate agreement will be difficult to comply with without alternative proteins... the German government should support the development of alternative proteins with research funding.”
- Maddie was interviewed by CBS News (pictured in top highlights, above) and quoted in dozens of outlets—including The New York Times, Wall Street Journal, Associated Press, USA Today, and POLITICO Pro—in pieces covering the FDA's draft guidance on plant-based milk.
- The Business Times, Singapore's top financial newspaper, published a new op-ed by GFI APAC Senior Communications Manager Ryan Huling. Excerpt: "In addition to any personal health or nutrition benefits they may offer, alternative proteins address a genuine regional need: to make more food with fewer resources.” Ryan’s op-ed was also re-published by the government agency Singapore Economic Development Board.
- El País, the world’s most-read Spanish-language newspaper, quoted GFI APAC Managing Director Mirte Gosker in a piece pushing back against the idea that plant-based meat adoption
could be plateauing: “Asian consumers are willing to consume alternative proteins, but only if the products match or exceed the taste, nutrition, and affordability of conventional ones.”

● The South China Morning Post, Hong Kong’s newspaper of record, quoted Mirte when covering GFI APAC’s announcement on record-breaking APAC alt protein investments: “There is clear market interest in healthier and more sustainable sources of protein, but existing offerings often fall short, so deeper investment in product R&D – especially on textural and flavour elements – is needed to develop and scale-up products that can appeal to Chinese consumers’ famously discerning palates.” GFI senior advisor Matt Spence was also quoted: “Deep institutional investments from sovereign wealth funds, pension funds, and creative capital sources are key to propelling the global alternative-protein sector forward and sustaining a building boom big enough to meet this moment.”

● El Español, one of Spain’s biggest national newspapers, quoted Carlotte when covering GFI Europe’s release of investment data illustrating growing investment in the Spanish plant-based and cultivated meat sector.

● The Red to Green podcast released one episode with GFI Europe Policy Manager Seth Roberts covering the regulatory approvals process for alternative proteins in the EU in comparison to other global jurisdictions, and another with Elliot covering fermentation and cultivated meat bioreactor capacity, project finance, and scaling supply chain inputs and the workforce.

● GFI Israel’s State of Alternative Proteins 2023 Report was featured in 12 news outlets, including The Times of Israel, the Jerusalem Post, Ynet (Israel’s leading digital news website), and The Marker (one of Israel’s leading business outlets). Aviv was interviewed on “Kan” radio (Israel’s leading news radio station) to discuss the main takeaways from the report.

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

Sincerely,

Bruce Friedrich
President and Founder