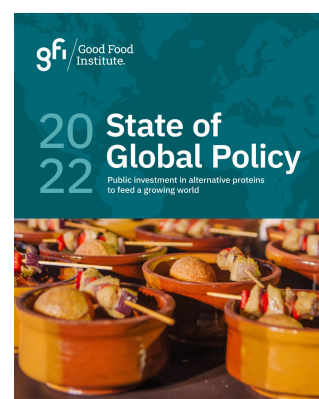


GFI's GLOBAL HIGHLIGHTS

July 2023

The top highlights:

- **GFI India's continued engagement with the Government of India led to the inclusion of alternative proteins as [one of six key priorities](#) for its Ministry of Science and Technology.** GFI India will continue to work closely with the Ministry's Department of Biotechnology to analyze alternative protein gaps, challenges, and opportunities that India is best positioned to address and build a strategic roadmap to ensure that India will be an alternative proteins global leader.
- **GFI published the [2022 State of Global Policy Report](#), which calculates and analyzes public funding for alternative proteins across the globe.** Policy experts from GFI's global teams hosted a State of Global Policy [webinar](#), which was attended by representatives of the Food and Drug Administration (FDA), U.S. Department of Agriculture (USDA), the House of Representatives Committee on Agriculture, and other Congressional offices, embassies, and alternative protein and meat companies.
- **GFI and Integration Consulting launched the [fermentation manufacturing capacity analysis](#),** which describes the global fermentation-derived product manufacturing landscape and strategies to effectively scale manufacturing capabilities to support technology development and meet future demand. A webinar exploring the key findings from the analysis can be watched [here](#).
- **GFI Israel hosted a [plenary session](#) on alternative proteins and food security at the Israeli [51st Annual Conference for Science and the Environment](#).** GFI Israel gave the opening keynote, moderated an interview with Caitlin Welsh, director of the Global Food and Water Security Program at the Center for Strategic and International Studies, and moderated a panel discussion featuring Stephanie L. Hallett, chargé d'affaires at the U.S. Embassy in Israel, and Gideon Bachar, special envoy for climate change and sustainability in the Ministry of Foreign Affairs, who stated, "There is a mission knocking on our door. We have the responsibility as a nation to solve the climate crisis, and that cannot be done without alternative proteins."
- **GFI launched a [needs assessment on building an inclusive alternative protein workforce](#).** This report reviews the challenges faced by scholars from underrepresented and minoritized groups and describes opportunities for GFI and its partners to transform their career experiences.
- **GFI Europe published the [2023 mid-year impact update](#).** Check out the report for a dive into some of GFI Europe's key focus areas and activities from the first half of the year.
- **GFI in the news:** See our top media mentions, below, for links to GFI team members in *Nature*, *National Geographic*, *The Economist*, *CNBC*, *The Hindu*, *The Atlantic*, *Inc.*, and more.



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 launched our [2023 Research Grant Program Request for Proposals \(RFP\)](#). The RFP will provide funding for foundational, open-access research through Field Catalyst Grants of up to \$250,000 over 24 months. These grants focus on four priority topic areas identified as pressing scientific and technological challenges facing the alternative protein industry: extrusion process innovation, seafood cell culture proliferation, feedstock optimization, and alternative feedstock innovation. We are accepting applications from around the world through September 21st.
- The follow-on effects of GFI's grant program continue to be catalytic, with two recent publications stemming directly from GFI funding: Grantee Eddy Smid from Wageningen University & Research and his Ph.D. student Jasper Zwinkels published a [paper](#) in *LWT - Food Science and Technology*, and Filiz Koksel, one of GFI's first grantees in 2019, published a [paper](#) in *Food Research International*. Both publications are excellent contributions to the research in improving plant-based protein and product quality for consumers.
- The Israeli government collaborated with GFI Israel to [publish](#) a call for proposals on alternative protein research to fund 10 new projects with a total of ~\$1.35 million. Building on the success of the 2022 collaboration between GFI Israel and the Israeli Ministries of Innovation and Agriculture, which jointly funded \$1.2 million toward 15 new research projects, the ministries agreed to continue the collaboration and increase their funding this year. Through this partnership, we are able to direct funding toward the most neglected and important scientific research in the field.
- GFI India hosted a [Smart Protein Forum](#) in collaboration with the University of Trans-Disciplinary Health Sciences and Technology (TDU) and other partners. Research scholars, industry professionals, university faculty, and students attended the event, which included panel discussions with field experts, a tour of TDU's plant protein pilot-scale processing facility and research kitchen, and a live cooking and tasting session. Dr. Niloo Srivastava, a senior scientist from the Department of Biotechnology, Government of India, delivered the inaugural address.
- GFI India published the [Technological Review of High-Moisture Extrusion for Creating Whole-Cut Plant-Based Meat](#), a comprehensive state-of-the-art literature review explaining the nuances of ingredient selection, extruder operation and control, and quality analysis of extruded plant-based meat products.
- GFI Israel Events & Community Engagement Manager Yael Snyder, GFI Israel Director of SciTech Michal Halpert, Ph.D., and Dr. Hila Elimelech, science and technology consultant to GFI Israel, led a [webinar](#), "From Traditional Production to Plant-Based Proteins Applications," which showcased Dr. Elimelech's mapping of other industry technologies relevant to the alternative protein space.
- Lead Scientist Claire Bomkamp, Ph.D., and Senior Science Content Specialist Renee Bell hosted GFI's first Fish & CHIPS (Collaborative Huddle for Ideation & Problem Solving) event, which brought together 36 cultivated seafood scientists to discuss challenges related to cell isolation, serum replacement, and research tools.
- Associate Director of Scientific Ecosystems Amy Huang moderated the July [Science of Alt Protein seminar](#) featuring GFI grantee Dr. Simon Hubbard of Upstream Applied Science. Dr. Hubbard

discussed how he uses cutting-edge computational workflows to efficiently predict yield limits in cultivated meat production.

- Amy presented at the Institute of Food Technologists Short Course: [Unfolding the next frontier of alternative proteins](#), which explored novel and upcycled sources for plant proteins. She gave the introductory kick-off lecture on the [scientific opportunity for alternative proteins](#) and a deep-dive lecture on [alternative proteins and sustainability](#).
- GFI Brazil SciTech Specialist Grazielle Grossi Bovi Karatay presented on the science of alternative proteins and plant-based ingredients at the [Food Science and Technology Symposium](#), organized by the Graduate Program in Food Science and Technology and Food Engineering course professors at a top federal university in Brazil. The event featured discussions on the challenges and trends in the food industry, with an emphasis on health and nutrition.
- GFI Europe Research Support Manager David Hunt gave a presentation on the scientific and industrial challenges of alternative protein production at the [International ISEKI-Food Conference](#), an event that focused on next-generation education and research in food science and technology.
- Principal Scientist Elliot Swartz, Ph.D., hosted this month's [Cultivated Meat Collaborative seminar](#), which featured presentations from [3D Bio-Tissues](#) and [InSight Labs](#) about efficiencies in structure for cultivated meat and how single-cell biology can optimize the biomanufacturing process.
- Academic Community Manager Nathan Ahlgrim, Ph.D., held the first alternative protein educator community call, an ongoing forum for educators to share resources and best practices, including providing guest lectures, curriculum development, and more. Interested educators are welcomed to [join the community](#).

GFI influences the public sector to support alternative proteins

- Policy Associate Michael Carter, GFI VP of Policy for Asia Sam Lawrence, and Doris Lee, CEO of GFIC, an independent strategic partner that does mission-aligned work in mainland China, attended the [United Nations Food Systems Summit +2 Stocktaking Moment](#). The Summit took place at the Food and Agriculture Organization (FAO) in Rome, Italy. The team met with key stakeholders from governments, regulatory agencies, and civil society from several countries to better understand GFI's prospects at FAO and opportunities for COP28 and future multilateral outreach.
- GFI Israel CEO Nir Goldstein and Michal spoke at the Sustainable Protein Community Buildup Workshop jointly organized by the Technion - Israel Institute of Technology and GFI Israel, showcasing alternative proteins as a climate and food security pillar and presenting our local and global funding opportunities. The event included research presentations, roundtable discussions, and a networking session to connect researchers in different disciplines.
- The U.S. Policy team published two 2023 Farm Bill fact sheets: one advocating to expand the focus on [alternative protein research](#) within the Department of Agriculture's AFRI (Agriculture and Food Research Initiative) grant program, and the other advocating to [establish new Centers of Excellence](#) at academic institutions focusing on alternative protein research and workforce development. The



Farm Bill will set the agricultural priorities for the United States over the next five years—from commodity crops to nutrition to research.

- Senior Regulatory Attorney Maddie Cohen, J.D., and Associate Director of Regulatory Affairs Laura Braden, J.D., filed a written comment to the FDA regarding the agency's draft guidance on the labeling of plant-based milk products. The comment expresses support for the agency's conclusion that consumers are not confused by plant-based milk labels and urges the FDA to reconsider its proposed nutrient labeling scheme that would have plant-based milk producers include a front-of-pack nutrition statement comparing the levels of nine nutrients to those found in an unrelated USDA milk substitute standard.
- GFI India Policy Specialist Radhika Ramesh, Director of International Engagement Stephanie von Stein, and GFI Brazil Policy Analyst Mariana Bernal took part in [the first regional consultations on nature-based solutions](#) organized by the United Nations Environment Assembly, and Radhika provided a verbal submission to the organizing chairs. These consultations are organized to gather regional inputs prior to the in-person conference that will be held in Nairobi in October.
- Encouraged by GFI Israel's workforce survey and recommendations, the Israel Innovation Authority (IIA) announced that three alternative protein workforce development programs—at the Technion, the Hebrew University of Jerusalem, and Elevation Education—will be funded as part of a [NIS 36 million fund](#) dedicated to training human capital for cutting-edge technological sectors.

GFI influences the for-profit sector to prioritize alternative proteins

- Investor Engagement Manager Sharyn Murray hosted the first meeting of the ESG Framework Specialist Investor Working Group, which was attended by representatives of Indiebio, Aiim Partners, Synthesis Capital, Unovis, Good Startup, Stray Dog Capital, Sustainable Food Ventures, and Alwyn Capital. Participants shared their views on how the Framework could be enhanced to make it more actionable for very early-stage companies and increase uptake.
- GFI India Innovation Associate Poorvasha Kar hosted the [final session](#) of the Financing the Future webinar series, organized in collaboration with the angel investor network BioAngels. The session focused on pitching and fundraising strategies in the Indian smart protein sector.
- GFI Europe Senior Corporate Engagement Manager Carlotte Lucas and Corporate Engagement Lead Marika Azoff hosted the first [GFI LINC](#) roundtable with senior representatives from Nestlé, Sodexo, IFF, Firmenich, Roquette, Finless Foods, ChickP, and More Than Meals. The conversation focused on the challenges currently facing the plant-based category.
- GFI Brazil Corporate Engagement Data Specialist Camila Lupetti presented the results of [The Brazilian Consumer and the Plant-based Market Research - 2022](#) to health and nutrition professionals at the International Congress on Integrative Nutrition.
- GFI APAC SciTech Manager Wasamon Nutakul, Ph.D., and GFI APAC Corporate Engagement Manager Jennifer Morton provided a workshop on market, technology, and company best practices in the plant-based sector for Otsuka Holdings Co. Ltd.—a Japanese conglomerate—which owns several plant-based brands such as Daiya Foods in the United States, Zeromeat in Japan, and Sante in France. The session was attended by Otsuka R&D teams from around the world who were interested in learning more about the technological readiness of texturization technologies, consumer perceptions of genetic modification, and masking technologies.
- GFI Israel Director of Innovation and Business Engagement Aviv Oren served as a judge at the

Coller Foundation - Tel Aviv University (TAU) start-up competition. Four alternative protein ventures reached the final, and the \$100,000 first prize winner in the foodtech track was [MNDL Bio](#), a new start-up that developed an advanced computational platform for optimizing gene expression to improve host cells for fermentation or cultivated meat cell lines using AI.

- Innovation and Entrepreneurship Manager Laine Clark hosted a roundtable focused on mapping out scaling challenges in cultivated meat with participants from Thermo Fisher, Ark Biotech, Akoya Technologies, DynacYTE Biosciences, CellMotions, Gusmer Enterprises, and The Cultivated B.
- Startup Innovation Lead Audrey Spence hosted July's [Business of Alt Protein seminar](#), which included a presentation from Justin Prochnow from Greenberg Traurig, an international law firm with an extensive Food, Beverage & Agribusiness Practice. The session focused on labeling regulations, claims and substantiations, and manufacturing and SOPs.
- GFI consultant Chris Krause created a Korean-language [translation](#) of GFI's latest State of the Industry Report summary and a [glossary of key terms](#) in Korean to facilitate future translations and identify terms specific to the alternative protein sector that might not yet have a direct equivalent.

Top media mentions:

- The prestigious scientific journal *Nature* published [a superb primer](#) on the science and challenges of cultivated meat that includes GFI's work throughout the piece—from our grants program to our cell database to our life cycle analysis, and more. The piece also cites Elliot as a notable expert in the field: "The first products to inch into the market have been chicken, even though — from a climate perspective — standard chicken has the smallest carbon footprint of the major meats. But Swartz notes that displacing chicken has real benefits for animal welfare, can limit zoonotic diseases and, by using less antibiotics, could stem the problem of antibiotic resistance."
- Laine was quoted heavily by CNBC in a [deep dive](#) covering trends in the alternative protein sector: "It's going to come down to infrastructure and how quickly the companies can scale, she noted. Getting the taste perfected and lowering prices is also a big factor in the products' successes, she said. 'Startups have to think about what they're putting out there. It's not a race just to get to the shelf, it's a race to get the best product to the shelf.'"
- GFI's rallying cry for \$10 billion in annual government investment was highlighted in a Reuters [piece](#) about cultivated meat, which quoted data from GFI's recent State of Global Policy Report. Excerpt: "The Good Food Food Institute, a think tank for plant-based and cultivated meat, said if governments worldwide invested \$10.1 billion annually, the sector could reach \$1.1 trillion and support nearly 10 million jobs. Last year, governments spent about \$635 million on alternative proteins, about \$167 million of which was for cultivated meat, according to the group."
- Claire was quoted by *National Geographic* in a cultivated meat [explainer](#): "Bomkamp is passionate about the budding industry's potential and thinks the more people actually try lab-grown meat, the more normal it will feel. 'Maybe at first people will think about trying cultivated chicken as this crazy experience, and certainly the media has made it sound like this weird new science-y thing,' she says. 'But ultimately, it's just chicken.'"
- GFI APAC Managing Director Mirte Gosker was quoted in the print and online editions of *The Economist* for an article—titled "[Bloodless revolution](#)"—about Singapore's global leadership in the cultivated meat space. The magazine also [promoted the story](#) to its 27 million Twitter followers.
- *The Hindu* (the most circulated English-language daily in India) published an optimistic [piece](#) on

India's potential in the cultivated meat industry and cited Radhika: "The global demand for poultry alone is projected to increase 850% by 2040... Building future food systems that will ensure an adequate supply of this protein is therefore very important."

- Mirte was quoted in a *Forbes* [profile piece](#) about a new female-led VC firm investing in alternative proteins: "'Building a more secure, sustainable, and just food system is not merely a choice in Asia...it's a necessity,' says Gosker. 'Conventional animal agriculture is ill-equipped to handle the escalating pressures of skyrocketing protein demand, land and water scarcity, and threats of viral outbreaks.'"
- Charlotte spoke on a Future Food Finance podcast [episode](#) alongside the Chief Scientific Officer of Quest Meat, a UK cultivated meat company, about the state of the cultivated meat landscape: "We've seen a plethora of B2B startups like Quest pop-up that are really honing in on a couple of these underlying technological challenges and then providing solutions to some of the cultivated meat companies that are developing the end product. I think this type of transition is really starting to accelerate progress in this space."
- Founder & President Bruce Friedrich, Lead Scientist Prieria Panescu, Ph.D., and Elliot were quoted throughout this [editor-recommended "must-read"](#) in *The Atlantic* about advancements in plant-based and cultivated meat. Excerpt: "For plant-based meat to taste more like meat, it needed to become more like meat at the molecular level, Prieria Panescu, a chemist at the Good Food Institute, told me. Scientists needed to figure out how to lace plant-based proteins with fat—specifically, with fat that is solid at room temperature and liquid when heated, as lard and schmaltz are."
- *Inc.* quoted Jessica in its [piece](#) about cultivated meat's debut in San Francisco and the broader U.S. regulatory landscape for cultivated meat: "Almy sees promise in research into things like developing cell lines from a diverse range of species and making improvements to the growing media. 'All the kind of fundamental building blocks of how you grow meat outside of an animal would benefit from public investment and open access to the research.'"

Thank you for fueling our mission!

GFI is powered by philanthropy; these accomplishments are only possible thanks to gifts and grants from our family of donors. If you or someone you know would like to learn more about supporting the work you read about in our Global Highlights, please contact philanthropy@gfi.org.

From everyone on [Team GFI](#), thank you for your enthusiasm, partnership, and commitment to a better future.

Sincerely,



Bruce Friedrich
President and Founder

