GFI's Reporting of Programs (2020)

This document contains responses written by the charity. ACE has made no content changes other than the removal of confidential information.

Program 1

Program name:	Policy
Date commenced:	June 2016 (this is the month we hired our first six staff members, one of whom focused on policy)

Description:

Government policy can be the difference between success and failure for new technologies. Governments can incentivize technology through funding and supportive regulation, and they can also disincentivize with laws and regulations that make it harder to launch new businesses and innovative products. GFI's Policy team leverages public policy on a global basis both to allocate government R&D resources to alternative protein and to remove hurdles that stand in the way of its widespread adoption. We work closely with legislators and regulators to ensure a clear and efficient path to market for cultivated meat and to ensure that plant-based meat can compete on a level playing field.

Our Policy team achieves its goals by focusing on the following:

1. Removing Hurdles to Plant-Based Meat & Dairy and Cultivated Meat

Our initial focus has been to advocate for a clear and efficient path to market for cultivated meat and a level playing field for plant-based meat and dairy.

First, we ensure that cultivated meat can come to market without unnecessary regulatory burdens by briefing policymakers on its production process and relevant safety controls. Our Policy team and GFI's international affiliates use a briefing document that we adapt for key markets to encourage the establishment of a clear and efficient path to market that ensures consumer safety and confidence. Further, in coordination with the companies in this space, we testify at hearings and submit formal regulatory comments that respond to regulators' questions about the safety and fair labeling of cultivated meat.

Mindful that opposition to technology has been a major hurdle to innovation, we also work to develop relationships with other nonprofit organizations, including those focused on environmental, global hunger, consumer rights, animal welfare, and food safety issues, to help familiarize them with cultivated meat and neutralize potential opposition. Engaging the nonprofit community in this way is an initiative that GFI is uniquely qualified to lead; it also supports our other policy priorities.

Second, we help create a level playing field for plant-based meat and dairy by working with federal food agencies, members of Congress, and state legislatures to support common-sense labeling rules that put plant-based products on equal footing with their animal-based counterparts.

We also use strategic litigation to prevent the government from unduly restricting plant-based meat to the advantage of its competitors.

2. Leveraging Government Resources to Accelerate Progress

Our Policy team is increasingly focused on leveraging government resources to accelerate progress for alternative protein, primarily through research. We meet with congressional offices to communicate the vital need for federal agencies to direct research funding into projects relevant to alternative proteins. Examples include characterizing underutilized plant proteins for functionality, optimizing cell culture media, and developing agriculturally relevant cell lines.

In the coming year, our Policy team will continue to influence the public sector to support alternative proteins. By the end of 2020, our Policy team aims to secure the first U.S. public investment explicitly dedicated to plant-based and cultivated meat open-access research. We will advocate for alternative protein producers to be able to clearly communicate with their consumers; our goal is to ensure that at least 85% of the U.S population is not living under label censorship at the federal or state level.

We aim to influence one major global philanthropy to make alternative proteins a key policy priority and plan to meet with 12 governmental grantmaking program managers to discuss how plant-based and cultivated meat research fits within their program and helps them achieve their goals.

In the next two years, our Policy team plans to engage and influence government leaders so that a diverse group of members of Congress publicly express support for plant-based and cultivated meat. We also plan to unite a bloc of cultivated meat companies that will propose cultivated meat safety standards to global regulators.

How do you measure the outcomes of this program?

We establish our Objectives and their accompanying Key Results annually and supplement them with quarterly action plans. Every GFI team member ends every quarter by grading all of our Key

Results on a 0 to 1 scale and then setting our key results (and associated actions) for the next quarter.

We also enter our actions and key results into Asana, a web-based platform designed to help teams organize, track, and manage their work. Asana allows teams to aggregate their completed actions and thus determine the extent to which each key result is achieved, again on a 0 to 1 scale.

For more detailed information, please read our response to ACE's question, "Is there anything else you'd like us to know about your charity's programs, not mentioned in the Program Tables?" in the *Other Program Questions* document.

Do you collaborate with other organizations in this program?

Our three key policy collaborators include:

- The American Civil Liberties Union, ACLU-Missouri, and ACLU-Arkansas (free speech and civil liberties nonprofit organizations)
    - We are co-counsel in two cases challenging state laws that unconstitutionally censor the labels of plant-based meat.

- Animal Legal Defense Fund (animal protection organization)
    - We are co-counsel, together with our ACLU partners above, in two cases challenging state laws that unconstitutionally censor the labels of plant-based meat.

- Turtle Island Foods (maker of Tofurky)
    - Together with our ACLU and ALDF partners above, we represent Turtle Island Foods in two cases challenging state laws that unconstitutionally censor the labels of plant-based meat.

We also collaborate with:

- Plant Based Food Association (PBFA)
    - We work with PBFA where our interests align. For example, we recently lobbied Virginia Governor Ralph Northam to veto a bill that would prohibit the use of the term 'milk' on non-dairy milk labels. Out of nearly 1,300 bills considered, this was the only bill that the governor vetoed, and he vetoed it for precisely the reasons we had advocated.

- The Breakthrough Institute
    - We have advised this environmental research center and informed their publication of a report advocating for federal support for alternative protein. This report marks the first time another organization has publicly called for open-access alternative

protein R&D funding. (You can check out our blog post highlighting how the report aligns with our R&D funding goals.)

- R Street Institute
    - We collaborate with this conservative and libertarian think tank to oppose label censorship bills on the grounds that they represent needless government interference in the marketplace. For example, we worked with the R Street Institute to ensure that the Institute's letter opposing label censorship bills included cultivated meat and co-authored a USA Today article on the subject.

What are your top 5 biggest outcomes for this program prior to 2019?

Outcome 1: **Defeating a harmful 2018 House Ag Appropriations bill**—The U.S. Department of Agriculture (USDA) and the U.S. Food and Drug Administration (FDA) committed to a cooperative regulatory framework for cultivated meat from livestock and poultry, which reflected the priorities we identified in our public comments: a single point of entry and a major role for FDA, with no new legislation needed. The House draft of the agriculture spending bill threatened to overrule the agencies and give authority solely to USDA, but GFI and our friends at Sidney Austin LLP lobbied extensively and helped rally key congressional leaders to defeat the provision.

Outcome 2**: Shaping the U.S. and international cultivated meat regulatory framework—**We actively shaped the U.S. regulatory framework for cultivated meat by making oral remarks (including this official statement) and regulatory submissions (such as this one joined by seven leading cultivated meat companies) to USDA and FDA. The agencies have since moved ahead productively and their talking points have frequently mirrored our submissions. We also developed helpful background information for developing a policy framework in any market and began the process of creating a cultivated meat regulatory path forward in India, Israel, Brazil, Singapore, and the EU.

Outcome 3**: Successful lobbying for federal alternative protein R&D—**In 2017 and 2018, our Policy team's lobbying shaped spending bill report language that urged USDA to invest in research on plant proteins, which then spurred a call for proposals from USDA's Agriculture and Food Research Initiative that included plant-based and cultivated meat. (We worked this one from both sides, legislative and administrative.)

Outcome 4**: Fighting label censorship legislation—**In collaboration with Tofurky, ALDF, and the ACLU of Missouri, we filed a lawsuit asking a federal district court to declare that Missouri's 2018 meat labeling law—intended to criminalize plant-based and cultivated meat labels—is unconstitutional.

Outcome 5**: Advocating for plant-based milk labels—**In 2018, we filed an amicus brief in the class action lawsuit *Painter v. Blue Diamond Growers*. The U.S. Court of Appeals for the Ninth Circuit ruled that consumers are not confused by almond milk labels. During oral argument, the panel

read a portion of our amicus brief aloud, and *USA Today* published our op-ed on the case. Our work against non-dairy labeling censorship will translate into our work on meat labeling censorship, as the arguments are identical.

Program 2

Program name:	Science and Technology (SciTech)
Date commenced:	June, 2016 (this is the month we hired our first six staff members, two of whom were scientists)

Description:

There had been almost no scientific R&D on plant-based or cultivated meat outside of private industry when GFI started. Before GFI, no one had mapped the science of either method of producing meat, and all work was happening at the corporate (and thus IP-protected) level. GFI's Science and Technology (SciTech) team develops and promotes the science and commercialization of these technologies. We analyze the state of the industry, identify top research opportunities, engage scientists and engineers from academia and industry, and mobilize funding to accelerate alternative protein development. We also bring people together to form new companies and connect them to alternative protein experts and funding. And we run monthly scientific seminars for the cultivated meat companies.

GFI's SciTech team accomplishes its goals through three principal activities:

1. Analyzing Current and Future Technical Challenges and Scaling Bottlenecks for Alternative Proteins

GFI's SciTech team conducts detailed technical analyses of the alternative protein industry, including identifying articulating the major technical challenges, forecasting anticipated future growth bottlenecks, and evaluating the cross-applicability of technologies from parallel sectors. The findings of this work are shared publicly in the form of white papers, peer-reviewed journal articles, and industry reports. When these analyses reveal research projects and commercialization opportunities that address knowledge gaps or white space in the commercial landscape, GFI identifies researchers in academia and industry with the appropriate skill sets and expertise to address these gaps and supports their exploration of launching new research projects or commercial ventures in these areas. All of these analyses are published as

open-source resources available through our website, and they are heavily publicized and continually updated, ensuring wide accessibility.

GFI also performs literature reviews and industry interviews on an ongoing basis to remain current with recent advances within the field and in related but distinct disciplines with relevance to alternative proteins, such as advances in biomedicine that can be translated to cultivated meat. The SciTech team works with our Communications department to disseminate this information through relevant channels (webinars, blogs, interviews, etc.); our goal is to generate excitement in the science community and foster a better understanding of the need to develop alternatives to conventional meat.

Finally, the SciTech department has created a scientific advisory board composed of industry and academic experts in alternative protein research and adjacent disciplines to evaluate the industry, identify novel opportunities for research, and provide guidance on the strategy and goals of the SciTech team.

These efforts allow both GFI and scientists around the globe to understand the state of the science and engineering involved in innovative alternatives to animal products and to direct further research and development accordingly. This work is designed to inspire more scientists to devote their vocational lives to these fields and to ensure that duplicative work is minimized.

2. Mobilizing Funding for Open-Access Research and Early-Stage Commercialization

The SciTech department generates additional scientific research in alternative protein food technologies among academic research institutes and start-ups by seeking out funding opportunities to support these endeavors. Specifically, we identify funding opportunities from top governmental grant-making agencies and private foundations. Because they are immersed in analyzing the state of the alternative protein industries and identifying critical technical barriers, our scientists are well-positioned to handpick the best possible researchers to apply for these opportunities, leveraging funding for scientists focused on answering key scientific questions in plant-based and cellular agriculture.

Additionally, the SciTech department identifies public and private funding organizations from around the world whose missions align with one or more of GFI's goals to reduce global poverty, combat climate change, and improve human and farm animal health and well-being. We develop relationships with these organizations to provide education on the direct positive impacts of alternatives to animal agriculture and the critical need for additional research and development in these fields. These activities aim to increase the number of funding agencies providing grant opportunities focused on advancing alternative proteins.

Finally, due to the overall shortage of open-access alternative protein research and the urgent need to catalyze this research, GFI has launched an internal research grant program.

Leveraging SciTech's analysis work, technical expertise, and industry connections, GFI's scientists are uniquely positioned to identify critical technical barriers and "white space" research

areas that, if addressed, are poised to accelerate the alternative protein industries. Anticipated positive impacts resulting from the grant support provided through GFI's Research Program include:

- Startups and established companies use the research to develop, produce, and sell high-quality products.
- Academia, governments, and multinational institutions apply the research to solve critical sustainable development, global health, and climate issues.
- Universities create alternative protein training programs and research institutes.

Together with GFI's Development team, our SciTech team is working to secure funding that will solidify the continuity and expansion of this program in the absence of sufficient research grant opportunities from other funders. By mapping the existing alternative protein research funding landscape and comparing it to the funding levels required to meet our goal of replacing animal-based food products, we will create a strategy for coordinating internal (GFI-led) and external (government, etc.) funding activities to meet our desired research benchmarks identified through the industry analyses conducted by our SciTech team.

3. Inspiring the Next Generation of Scientists & Innovators

GFI is focused on moving the most successful entrepreneurs, tissue engineers, synthetic biologists, plant biologists, and others into alternative protein technologies—as founders of new and transformative startups, as employees at alternative protein companies, and as Ph.D. students, post-docs, and group leaders at top universities.

To this end, GFI reaches out to premier universities for science, engineering, business, and entrepreneurship. We actively engage researchers at these universities to encourage them to use their expertise for innovative plant and cultivated meat research projects. Our innovation specialists and scientists deliver presentations in classes, departmental symposia, and student forums to markedly increase the number and caliber of scientists and entrepreneurs working on alternative protein products.

In collaboration with universities and alternative protein companies, we are developing on-campus and online courses and workshops to educate students about the science and techniques required to develop the next generation of alternatives to animal-based foods.

The SciTech department also reaches out to experienced serial entrepreneurs and business people interested in entrepreneurship to inspire them to start new companies in the alternative protein spaces. We developed a list of "white space" company ideas representing opportunities that have not been capitalized upon, for which we are actively recruiting founding teams. To recruit these founders, we reach out to tissue engineers who may have been planning to work in the medical field, synthetic biologists who may have been planning to work in chemicals, plant biologists who may have been planning a career focused on creating new designer plants, and so on. We then educate and encourage these individuals to use their skills on behalf of food

technologies that will transform our food system away from industrially produced animal products and toward more healthy and humane alternatives.

To help entrepreneurs and startups develop impactful and successful businesses, GFI provides guidance, direct expertise, connections to funding opportunities, and access to external experts to aid in the scientific development of their products. GFI scientists and innovation specialists support entrepreneurs in early stages of company development with technical information and direction.

GFI is also directly recruiting and supporting startups to fill critical B2B infrastructure roles in the industry. Such companies could provide key ingredients and process equipment capability to accelerate the growth of the industry and support the growth of consumer-facing companies.

In collaboration with the Corporate Engagement department, GFI's scientists also work closely with leading food industry partners to scout technologies that address barriers in bringing alternative proteins to market. The SciTech department is developing relationships with major food manufacturers and ingredient suppliers to determine these needs and thus serves as a bridge to food innovation and biotechnology incubators with unique insight into plant-based and cellular agriculture technologies.

In the coming year, GFI's **SciTech team** will continue to foster a strong open-access alternative protein research and training ecosystem. By the end of 2020, we aim to ensure that all Competitive Research Grant Program resources will be allocated for open-access research projects that fill the most critical white spaces. Our goal is that at least 85% (12 out of 14) of our 2019 grantees will publicly share research results, at least five will leverage GFI's resources to secure additional non-GFI research funding, and at least six companies will connect with grantees to explore how they can apply grant project findings to alternative protein products or process developments.

We will continue to build a robust and collaborative community of industry, government, and academic researchers who are actively advancing alternative proteins, and our teams will continue to inspire and support the next generation of innovators. We aim to publish at least one open-access deep analysis (as a white paper or peer-reviewed paper) addressing key knowledge gaps and to launch at least two open-access tools (e.g. courses, factsheets, webinars) each quarter to accelerate and improve plant-based product development and cultivated meat commercialization.

Our SciTech team plans to collaborate with academic institutions to submit at least two proposals for dedicated interdisciplinary plant-based or cultivated meat academic research centers. We also aim to engage students and researchers from 20 universities and launch a collaborative online community that serves as a force multiplier for the alternative protein movement.

How do you measure the outcomes of this program?

We establish our Objectives and their accompanying Key Results annually and supplement them with quarterly action plans. Every GFI team member ends every quarter by grading all of our Key Results on a 0 to 1 scale and then setting our key results (and associated actions) for the next quarter.

We also enter our actions and key results into Asana, a web-based platform designed to help teams organize, track, and manage their work. Asana allows teams to aggregate their completed actions and thus determine the extent to which each key result is achieved, again on a 0 to 1 scale.

For more detailed information, please read our response to ACE's question, "Is there anything else you'd like us to know about your charity's programs, not mentioned in the Program Tables?" in the *Other Program Questions* document.

Do you collaborate with other organizations in this program?

We collaborate with universities, startups, life science and food ingredient companies, government researchers and agencies, and more. We include below examples (though not a comprehensive list) of our SciTech partners.

Our university collaborators include:

- Virginia Tech University (We coordinate with and advise the Ovissipour lab on projects related to cultivated seafood.)
- Tufts University (We coordinate with The Kaplan Lab, a biomedical engineering group working on a systems approach to cultivated meat.)
- University of California, Davis (We assisted an interdisciplinary team of faculty and administrators to submit a proposal to the National Science Foundation. Our SciTech team will serve as a scientific advisor to the projects, if funded. SciTech members have also visited campus to meet with faculty members and students, give departmental seminars, and give guest lectures on at least four occasions, in addition to serving as external mentors for student engineering projects.)
- University of California, Berkeley (We helped launch and lead Alt.Meat lab, an interdisciplinary group that supports entrepreneurs and scientists innovating in the plant-based protein field. We also partnered with them to develop courses and awarded them a research grant.)
- University of Colorado, Boulder (We led guest lectures and departmental seminars, met with faculty members and students, provided feedback and introductions to advance specific projects, and met with university administrators on campus on multiple occasions. SciTech Associate Director Liz Specht is a Community Fellow with the Sustainability Innovation Lab at Colorado.)

- University of Wisconsin, Madison (A group of three interdisciplinary researchers are GFI grantees. We have given invited guest lectures to their stem cell and animal science departments.)
- Washington State University (We helped steer $250,000 from USDA via Washington State's department of agriculture into pea protein optimization research for plant-based meat.)
- Wageningen University, Netherlands (Two researchers are GFI grantees. We also have served as an advisor and judge for their student ReThink Protein competition. We give presentations, advertise their alternative protein research opportunities, and connect them with potential partners.)
- Technion - Israel Institute of Technology, Israel (Two researchers are GFI grantees. We have led seminars and inspired a course called "The Science Behind Meat Alternatives," which is led by our grantee. We also provided an invited lecture in the course.)
- Hebrew University, Israel (We provided a course on cultivated and plant-based meat in the department of Biochemistry and Food Sciences and led a cultivated meat seminar.)
- Ben Gurion University, Israel (We organized an event with the entrepreneurship student club and gave two lectures there. The Faculty of Biotechnology Engineering is highly interested in us to give a course on alternative proteins.)
- Tel Aviv University, Israel (GFI supports a mission-aligned alternative protein student club and organized an alternative protein seminar with Coller School of Management.)
- Tel Hai College, Israel (This college is a GFI grantee. We also support the national food institute emerging at the college, maintain a strong relation with the CTO, and recently led an event on foodtech and COVID-19.)
- Weizmann Institute, Israel (We provide counseling for startups and we led a fermentation event.)
- University of Campinas, Brazil (One of their researchers is a GFI grantee. We have also connected her with other researchers at Wageningen University and EMBRAPA.)

Our startup collaborators include:

- Impossible Foods (Esther Cohn, Senior Communications Specialist at Impossible Foods, is supporting our SciTech team in developing speaking engagements at universities.)
- JUST (Andrew Noyes, Head of Global Communications at Eat JUST, Inc, is supporting our SciTech team in developing speaking engagements at universities.)
- Trophic (This company is a two-time GFI grantee.)
- Mediterranean Food Lab (This company is a GFI grantee and connects frequently with GFI Israel.)
- Rival Foods (This company is a GFI grantee.)
- Virtually all of the cultivated meat startup companies (We field questions, make email introductions, and provide feedback on technical or business strategy plans for cultivated meat companies, and we coordinate collaborative opportunities such as the monthly seminars and last year's cultivated meat summit.)

- We have provided the same types of free support to a number of startup companies beyond cultivated meat, and we are planning to host a virtual summit this year for the fermentation space.

(For a complete list of all universities and startups that are GFI grantees, please see: gfi.org/researchgrants.)

Our life science / food & ingredient company collaborators include:

- Kerafast (We have formally partnered with them to develop a cell line repository for cells from food-relevant mammalian, avian, and aquatic species.)
- Richcore (We are planning to co-author a white paper this year as a follow-on to the cell culture media cost analysis paper, using cost curve insights from Richcore's current efforts to produce low-cost, food-grade growth factors. We have an NDA in place but it covers the content of the technical information they share with us, not the fact that we are working together.)
- Confidential company collaborations (We lead technical workshops for life science, technology, food, meat, flavor, engineering, and biotechnology companies or their holding companies. The majority of these companies are either under NDA or our work with them would be considered sensitive, so we prefer not to list them by name.)

Our government agency collaborators include:

- EMBRAPA, Brazil (We have led webinars for and with them. Two of their researchers are GFI grantees.)
- CSIRO, Australia (One of their researchers is a GFI grantee.)
- A*STAR, Singapore (We have provided technical consultation, advertise their funding opportunities, and connect them with relevant partners in our network. We have also co-authored a peer-reviewed publication with A*STAR scientists.)

Our other SciTech collaborators include, but are not limited to:

- Mote Marine Laboratory (We are funding a cultivated seafood research project led by this institute.)
- Cultivated Meat Modeling Consortium (We are a consortium partner. Our Senior Scientist Elliot Swartz serves as an advisor and member of the working group. The consortium is also a GFI grantee.)
- Plant Protein Innovation Center, University of Minnesota (One of their researchers is a GFI grantee. We serve as a collaborator in their research.)
- SMART PROTEIN Consortium, EU (We serve as a collaborator and consultant to this EU-funded research consortium.)
- Food Frontier, Australia (We serve as a collaborator and consultant on a variety of their initiatives.)

- RethinkX, UK/US (We served in an advisory capacity during the conceptualization and researching of their Rethinking Agriculture report, and provided connections to companies and researchers to support their efforts.)

Our partners for GFI's Alt. Protein Project—a global, intercollegiate movement for students and researchers to expand the alternative protein movement on their campuses—include UC Berkeley, UC Davis, University of Colorado, Boulder, University of North Carolina, Chapel Hill, and Tel Aviv University.

What are your top 5 biggest outcomes for this program prior to 2019?

Outcome: **Mobilizing funding to accelerate alternative protein R&D**—In 2018, we launched GFI's Inaugural Competitive Research Grant Program, which awarded almost $3 million of open-access alternative protein research funding to 14 recipients worldwide, 11 of whom had never conducted plant-based or cultivated meat research. According to the journal *Nature*, the $1.15 million we awarded for cultivated meat projects doubled the amount of funding dedicated to open-access cultivated meat science over the past 20 years. Grant recipients received funding for the first phase of critical research projects and connections to prospective private sector partners and/or sources of additional funding. Their findings will be published in scientific journals.

Outcome 2: **Creating and leading plant-based and cultivated meat academic courses—**The SciTech team, in collaboration with universities and plant-based and cultivated meat companies, developed courses and workshops to educate students about alternative protein. In early 2017, we launched the world's first courses on plant-based meat and plant-based fish, which GFI co-designed in collaboration with the UC-Berkeley Sutardja Center for Entrepreneurship and Technology. We also helped UC Berkeley launch a permanent "Program for Meat Alternatives" and Plant-Based Meat Innovation Lab, which has since expanded to include cultivated meat as one of the challenge areas students can address. We helped plan the class curriculum and judged students' final projects. In 2018 we helped launch a course on the science of plant-based and cultivated meat at Stanford University and via a massive open online course (MOOC).

Outcome 3: **Conducting technical due diligence for cultivated meat startup companies**—Our SciTech team played a strong technical advisory role with five plant-based and cultivated meat companies between 2016 and 2018, including Alpine Roads, Aleph Farms, Memphis Meats, SuperMeat, and BlueNalu. We provided technical plan review and feedback with additional plant-based and cultivated meat companies, including Biomimetic Solutions, Mission Barns, Wild Type, Higher Steaks, Bond Pets, Mosa Meat, CellularRevolution, and Simple Foods. Our support directly fueled multi-million-dollar investments to kickstart the commercial pursuit of cultivated meat in 2017 and 2018.

Outcome 4: **Advising key food and life science companies**—We provided an overview of the alternative protein industry to nearly 200 food and life science companies and discussed

opportunities for new products and technical innovation. We used our scientific publications (detailed below) as the basis for our conversations and education of these companies.

Outcome 5: **Inspiring and educating scientists to work on alternative protein through scientific publications**—GFI's groundbreaking scientific publications have established a scientific base of alternative protein knowledge and are inspiring further scientific and technological inquiry. Our work has been featured in prominent publications and shared with thousands of scientists, entrepreneurs, policymakers, and investors. All of GFI's white papers are published as open-source resources on our website, heavily publicized, and continually updated. Between our inception in 2016 and 2018, our scientific publications included:

- **Opportunities for applying biomedical production and manufacturing methods to the development of the clean meat industry** (*Biochemical Engineering Journal, April 2018*) GFI's first peer-reviewed publication discusses new applications of current biomedical products and manufacturing methods for cultivated meat, as well as opportunities for product development through partnerships between academic researchers, established industry players in cell-based therapeutics, and the emerging cultivated meat industry.
- **Is the Future of Meat Animal-Free?** *(Institute of Food Technology (IFT), January 2018)* In the cover story for IFT's January 2018 Issue, GFI Associate Director Dr. Liz Specht explained and discussed the future of cultivated meat. IFT is the largest professional organization of food scientists, and GFI has put plant-based and cultivated meat firmly onto their annual conference agenda every year since 2017. This article was an outgrowth of that work.
- **Growing Meat Sustainably: The Clean Meat Revolution** *(October 2018)*
  This white paper lays out the sustainability advantages of cultivated meat production at scale compared to conventional animal agriculture.
- **An Ocean of Opportunity, The Good Food Institute** *(September 2018)*
  This white paper explores opportunities to advance the development of plant-based and cultivated seafood and highlights specific approaches for capitalizing on these opportunities.
- **Plant-based Egg Alternatives: Optimizing for Functional Properties and Applications** (*June 2018*)
  This white paper provides a roadmap of existing egg alternatives, the functional properties they provide, and the relative importance of these functionalities across various applications.
- **Cellular Agriculture: An Extension of Common Production Methods for Food** *(March 2018)*
  Cellular agriculture entails the production of genuine dairy, egg, and collagen proteins without requiring the use of actual animals. In this technical paper, GFI provides an overview of this production method, including its history and its potential for changing today's food supply.

- **Plant-Based Meat Industry Mindmap, The Good Food Institute** *(September 2017)*
  This guide details high-impact approaches to the plant-based meat industry to accelerate the pace of innovation in this critical field.
- **Mapping Emerging Industries: Opportunities in Clean Meat** *(June 2017)*
  This guide illuminates opportunities for technology development in one of the most promising food tech industries: clean (now referred to as “cultivated”) meat.

Program 3

Program name:	Corporate Engagement
Date commenced:	Feb 1, 2016 (this was GFI’s launch date, and we were working on corporate engagement from that date; our first team member focused on corporate engagement was hired in March 2017)

Description:

There is no shortage of examples of new and innovative products that have replaced their outdated counterparts—think cell phones replacing (or even leapfrogging) landlines, digital photography replacing analog film, and cars replacing horses and buggies. GFI’s Corporate Engagement team works to replicate past market transformations by showing companies of all sizes, from startups to multinational corporations, how alternatives to conventional meat can be highly profitable without harming animals, accelerating climate change, or damaging our health and environment. We build collaborative relationships with the largest food and meat companies, chain restaurants, and grocery stores to maximize the availability, quality, quantity, and promotion of plant-based meat. Along with our other teams, our Corporate Engagement team also works with investors to encourage more global alternative protein investment and innovation.

GFI’s Corporate Engagement team is focused on six principal initiatives:

1. Big Food and Meat Company Outreach

Our Corporate Engagement team develops relationships with senior leadership at the top meat and food companies in the world. We have solidified working relationships with a variety of companies and delivered presentations on plant-based and cultivated meat to some of the largest food processors in the world.

Our Corporate Engagement team works with GFI’s SciTech team to evaluate opportunities to replace industrially produced meat, eggs, and dairy ingredients in pre-made or processed foods.

This strategy has the potential to place plant-based meats in schools, prisons, and hospitals via foods such as lasagna, enchiladas, sloppy joes, pulled “pork,” and macaroni and “cheese,” and plant-based milk and eggs via cookies, crackers, and snacks that may contain milk or eggs as standard ingredients.

1. Supporting the Most Innovative Alternative Protein Companies

We work with both startups and established companies on all aspects of their work in plant-based and cellular agriculture, including writing and editing business plans, conducting market research and branding exercises, recruiting top talent, and mentoring on all facets of starting and running a company. With the aim of accelerating the growth of the good food startup ecosystem, we create and maintain a variety of high-impact resources to help aspiring entrepreneurs turn their ideas into high-growth and impactful companies.

2. Plant-based Manufacturer Outreach

Our Corporate Engagement team cultivates relationships with all manufacturers of plant-based meat, eggs, and dairy to help them stay abreast of opportunities and research that can help their businesses grow. We launched the Plant-based Insider newsletter in July 2018 to more efficiently communicate news and opportunities to the entire plant-based business community. We have excellent relationships with all of the exclusively plant-based manufacturers, and it is valuable to have one central contact — GFI’s Corporate Engagement team — for these relationships.

3. Restaurant Outreach

When one chain restaurant with 1,000 locations adds a plant-based entrée where previously there were none, that is a significant victory for the environment, food security, global public health, and animals.

Our Corporate Engagement team is developing relationships with corporate executives at the top restaurants across the country in order to increase the quality, quantity, and promotion of their plant-based entrées. We engage in direct outreach and attend conferences for restaurant professionals. In order to make the transition to plant-based entrées easier, we offer our plant-based meat, egg, dairy, and seafood product database to restaurants and offer to connect them to product manufacturers. We have created many resources for restaurants, including our Good Food Restaurant Scorecard, which annually ranks the Nation’s Restaurant News Top 100 Restaurants according to the breadth and depth of their plant-based entrées and their promotion of plant-based eating.

4. Grocery Outreach

Our Corporate Engagement team offers guidance to grocery stores to ensure that they understand how to most effectively promote plant-based products in-aisle, online, and in their marketing materials. We also seek greater promotion of the category to increase awareness among flexitarians and meat-reducers, such as the inclusion of plant-based meat in

grilling-themed store flyers. We have created many resources for retailers, including our Good Food Retail Report, which evaluates the top 15 U.S. food retailers according to product assortment, as well as merchandising and marketing of plant-based meat, egg, and dairy products.

5. Sustainable Seafood Initiative

The Sustainable Seafood Initiative (SSI), a cross-functional initiative working across all of GFI's teams and housed in Corporate Engagement, aims to accelerate the development and commercialization of plant-based and cultivated seafood. The SSI, which officially launched in 2019 with the hiring of its first full-time staff member, implements scientific research to lower the barrier to entry for new plant-based and cultivated seafood companies, drives market research to better understand consumer trends and preferences unique to seafood, engages major seafood companies and investors in the United States and around the world, and identifies opportunities to engage policymakers.

In the coming year, GFI's Corporate Engagement team will continue to influence the for-profit sector to prioritize alternative proteins and transform global markets. By the end of 2020, as a direct result of GFI recruiting and support, one of our key goals is that alternative protein companies filling at least three key white spaces will be founded and enter an incubator/accelerator or acquire seed funding. Another key goal is that five alternative protein startups actively engaged with GFI will reach maturity, as measured by regional or national product rollouts, or a Series A or later investment round. We also aim to engage ten new companies from the Fortune Global 1000 in the alternative protein industry through product launches, technology co-development partnerships, or as material or service suppliers of dedicated solutions for alternative protein challenges.

How do you measure the outcomes of this program?

We establish our Objectives and their accompanying Key Results annually and supplement them with quarterly action plans. Every GFI team member ends every quarter by grading all of our Key Results on a 0 to 1 scale and then setting our key results (and associated actions) for the next quarter.

We also enter our actions and key results into Asana, a web-based platform designed to help teams organize, track, and manage their work. Asana allows teams to aggregate their completed actions and thus determine the extent to which each key result is achieved, again on a 0 to 1 scale.

For more detailed information, please read our response to ACE's question, "Is there anything else you'd like us to know about your charity's programs, not mentioned in the Program Tables?" in the *Other Program Questions* document.

Do you collaborate with other organizations in this program?

Our key Corporate Engagement collaborators who are not under NDA include:

- **Kellogg's, #14 top U.S. food processor**—We have served as an advisor to Kellogg's for two years and share our insights, market research, and technical expertise. Kellogg's sponsored our Good Food Conference both years, opting for the Presenting Sponsor role in 2019. At the Sustainable Brands conference in 2019, Kellogg's chose GFI as a co-presenter for a session that highlighted "powerful programs and partnerships."
- **Culinary Institute of America (CIA), the world's premier culinary college**—We have spoken about plant-based foods four times at CIA events like Menus of Change and the Global Plant-forward Summit which target foodservice professionals working in institutional settings as well as at some of the top 100 restaurant chains.
- **New Hope Network, a media and event company that hosts Natural Products EXPO, the biggest U.S. tradeshow for the natural food and products industry attracting 3,500+ exhibitors and 85,000+ attendees—**We have spoken as an authoritative source on the plant-based industry at three different EXPOS. We partnered with the organization to produce and distribute thousands of plant-based guides to the show floor (designed and researched by GFI, distributed as official show guides), directing retail buyers and investors to plant-based company booths. GFI has been interviewed for several of their industry publications. Two GFI leaders (Associate Director of Corporate Engagement Caroline Bushnell and Director of SciTech David Welch) have been appointed to their industry advisory board on standards, in part to educate the group on the role and benefits of alternative proteins, including those produced with synthetic biology.
- **Kroger—**We have worked with Kroger on a number of initiatives, including Kroger's participation at the 2019 Good Food Conference where they announced the launch of their new Simple Truth Plant-Based product line. We presented a lunch-and-learn on plant-based food at their corporate office and maintain relationships with their meat buyers.
- **Redburn—**Redburn has invited GFI to present twice to their investor network on emerging opportunities in alternative proteins. These are very impactful presentations that reach large institutional investors. We have participated in similar events with other large financial institutions including Jefferies, Wells Fargo, and Bernstein.

What are your top 5 biggest outcomes for this program prior to 2019?

Outcome 1: **Driving plant-based product innovation at "Big Meat" companies—**We engaged six of the world's top 10 meat companies and many of the largest food companies, helping drive plant-based and cultivated meat product innovation and/or investments at many of them. We were invited to speak at a biannual strategy meeting for top executives and board members at one of the largest food companies in the world and continue to have a superb relationship with the company.

Outcome 2: **Publishing the Good Food Restaurant Scorecard—**The Good Food Restaurant Scorecard annually ranks the Nation's Restaurant News Top 100 Restaurants according to the breadth and depth of their plant-based entrées and their promotion of plant-based eating. We released the inaugural Restaurant Scorecard in 2017 and a second edition in 2018, which collectively led to meetings with more than 30 of the largest global restaurant chains, including several of the largest Quick Service Restaurants. The Scorecard is not only helping GFI build awareness and relationships with U.S. restaurant chains, it is also generating media coverage to raise the profile of GFI and plant-based foods for the whole industry. From 2017 to 2018, we saw scores increase across almost all segments, driven by the introduction of new plant-based entrées and the increased availability of plant-friendly breakfast foods. The number of Top 100 restaurant chains earning zero points on our Scorecard dropped from 55 in 2017 to 45 in 2018.

Outcome 3: **Driving plant-based market analysis—**We drove the 2017 and 2018 expanded Nielsen market analysis on the U.S. retail sales of plant-based foods, which generated tremendous enthusiasm for plant-based meat and resulted in over 500 media mentions, including repeated mentions in Bloomberg, FT, CNBC, and other key business outlets. Our fact sheet offered a snapshot of the market penetration of plant-based foods, noting that sales of plant-based meat increased 23% between 2017 and 2018 and that the plant-based foods market grew to a $3.7 billion market domestically in 2018. With the addition of SPINS U.S. retail sales data on plant-based alternatives in the natural channel, the total U.S. plant-based retail market was worth over $4.1 billion in 2018. The analysis also determined that plant-based dollar sales were increasing by double-digits in every region of the country, highlighting the widespread demand. We broadly disseminated these findings to encourage alternative protein R&D and investments by both major corporations and investors.

Outcome 4: **Launching the first-ever** Good Food Conference—In 2018, GFI hosted the inaugural Good Food Conference, bringing together stakeholders from across the globe in alternative protein science, policy, entrepreneurship, investment, and media to discuss technologies and collaborative opportunities for shaping the future of food. Panelists included a long list of corporations that we want to become more invested in alternative protein, from Tyson, ADM, and Kraft Heinz to Benson Hill Biosystems, Thermo Fisher Scientific, Wenger Manufacturing, Black & Veatch, and a veritable Who's Who of the alternative protein industry. Moderators participated from the *Wall Street Journal, New York Times, BBC, GMA*, and more. The conference attracted more than 500 attendees and over 4,400 livestream viewers from around the world. In addition to attendees from the biggest food, meat, and chain restaurants, we were told that the livestream was shared with the entire R&D department of one of the largest food corporations in the world (ADM again, confidentially), was watched by the CEO of a multi-billion dollar engineering company that designs slaughterhouses and wants to design cell-based meat factories, journalists from around the world, and more.

Outcome 5: **Establishing cooperative relationships with the top plant-based meat, egg, and dairy companies in the United States**—We helped 32 plant-based meat, egg, and dairy

companies leverage the latest market intelligence, tailor their advertising for maximum sales, move into new export markets, and remove all animal ingredients from their products.

Program 4

Program name:	Innovation
Date commenced:	February 1st, 2016 (this was GFI's launch date, and we were working on innovation from that date; we hired our first innovation-focused team member in February 2017)

Description:

GFI was conceived because we saw the success of Impossible Foods and Beyond Meat in creating the next generation of plant-based meats and expanding the market for these products. These two companies, which did not even exist a decade ago, have raised north of 1.5 billion dollars in just the past ten years. All this money has gone into competing with the products of industrial animal agriculture, and of course, none of that money would have otherwise been put into protein diversification efforts. The opportunity to create and foster more such companies—thereby bringing billions of private sector dollars to the cause of transforming industrial animal agriculture—was the impetus behind creating GFI.

GFI's Innovation program was one of our four core programs throughout our first three years. It focused on creating new companies, recruiting and supporting entrepreneurs to create companies, and helping existing companies appeal to more consumers and become more successful. In 2019, GFI's leadership team determined that our core Innovation functions would operate most effectively across our SciTech, Corporate Engagement, and Executive teams. Our Executive team is now responsible for organizational strategy, our SciTech team now assumes responsibility for university engagement and business innovation, and our Corporate Engagement team now leads our market research, entrepreneur and investor advisory and support services, and the Sustainable Seafood Initiative. Our current Innovation team (whose members operate across our Corporate Engagement, SciTech, and Executive teams) focus on providing the following:

- **Accessible resources for the entire industry.** GFI curates an open-access resource database that includes reports, press releases, technical papers, and insight from experts in the field. We maintain an alternative protein company database and a 100-page (award-winning, from *Fast Company*) Startup Manual for entrepreneurs to guide them

through the early stages of forming their company and getting their product to market. We also provide alternative protein industry reports, a Plant-Based Meat Manufacturing Guide, and a Plant Protein Database. Investors can access our investor resource guide and investor resource webpage to connect with fundraising startups and potential co-investors, understand the alternative protein market and technical landscape, and help their portfolio companies succeed.

- **1-on-1 support for entrepreneurs and startups.** We provide tailored support for startups so they can approach investors with an attractive fundraising strategy and business model.
- **The GFIdeas community.** This free online community (described in more detail below and in our *Other Program Questions* document) engages more than 1,200 members globally and establishes an ecosystem for entrepreneurs to flourish. We facilitate two monthly seminar series on the business and science of alternative protein plus a Slack platform for exchange of ideas, resources, and feedback.
- **University engagement.** GFI is building a pipeline of future alternative protein entrepreneurs, scientists, and innovators through recruiting students at premier business and science university programs. We reach more than 3,000 students and faculty annually through our panels, lectures, and events. Our University Innovation Specialists founded The Alt. Protein Project, a global, intercollegiate movement for students and researchers to expand the alternative protein movement on their campuses. Student leaders have made notable progress in generating awareness, stimulating research and innovation, and building a sense of community on campus. We maintain resources intended to support a wide range of academic and university stakeholders in alternative protein fields. Our Student Guide to Navigating the Alternative Protein Space helps students who are planning their careers in plant-based, cultivated, or fermentation-derived meat. Our academic labs database provides a comprehensive look at researchers, labs, and other institutions involved in cutting-edge innovation that propels alternative protein technology forward.

GFI is uniquely positioned as a nonprofit in the alternative protein market. In 2018, we were one of only three nonprofits to participate in Y Combinator's startup accelerator. We have served as a unique force multiplier for the industry, helping form several venture capital funds and high impact startups (all done without taking financial interests).

Our projected Innovation outcomes for the coming year are now included under our Corporate Engagement and SciTech team's goals, as Innovation is no longer a program.

How do you measure the outcomes of this program?

We establish our Objectives and their accompanying Key Results annually and supplement them with quarterly action plans. Every GFI team member ends every quarter by grading all of our Key Results on a 0 to 1 scale and then setting our key results (and associated actions) for the next quarter.

We also enter our actions and key results into Asana, a web-based platform designed to help teams organize, track, and manage their work. Asana allows teams to aggregate their completed actions and thus determine the extent to which each key result is achieved, again on a 0 to 1 scale.

For more detailed information, please read our response to ACE's question, "Is there anything else you'd like us to know about your charity's programs, not mentioned in the Program Tables?" in the *Other Program Questions* document.

Do you collaborate with other organizations in this program?

We include our Innovation collaborators under our Corporate Engagement and SciTech responses.

What are your top 5 biggest outcomes for this program prior to 2019?

Outcome 1: **Creating The Good Food Startup Manual—**In 2018, we created this extensive step-by-step guide for starting a plant-based or cultivated meat company in 2018. The manual includes real-world knowledge from successful entrepreneurs in alternative protein food tech, including best practices, potential barriers to success, and recommended resources. In its first year, the manual was downloaded more than 3,000 times and was an honoree of *Fast Company*'s 2019 World Changing Ideas. It has also been translated for audiences across the globe.

Outcome 2: **Launching the GFIdeas Community—**In 2016, we launched the GFIdeas community of entrepreneurs as a forum for alternative protein company founders to provide peer support, access funding and partnership opportunities, and to discuss challenges and best practices. Over the course of the community's first three years, it grew to ~500 members and connected multiple entrepreneurs who have launched alternative protein companies together, including Better Meat Co. and New Age Meats. We also created the GFIdeas Directory to facilitate connections between entrepreneurs in the community and help conversations continue outside of formal GFI channels.

Outcome 3: **Investor and Startup Advisory Services—**In addition to producing resources that have catalyzed a growth in activity and effectiveness within the innovation ecosystem, we offered individualized guidance to more than 100 entrepreneurial teams and startups, large corporations, incubators/accelerators, venture capitalists, and investors. In addition to offering our scientific expertise to entrepreneurs and startups, we offered them feedback on their pitch decks, business plans, and accelerator applications and provided introductions to investors and large corporations (as customers or suppliers).

Outcome 4: **Launching Alternative Protein Companies**—Between 2016 and 2018, GFI partnered with serial entrepreneurs to start three companies from scratch, based on our white space ideas:

SeaCo/Good Catch, which focuses on plant-based seafood; Good Dot, which produces plant-based meat in India; and Dao Foods, which is focused on bringing plant-based and cultivated meat to China. Between 2016 and 2018 our Innovation team also played a pivotal role in the launch and/or success of 11 additional plant-based and cellular agriculture companies: New Age Meats, Prime Roots, Better Meat Co., Alpine Roads, Memphis Meats, Abbot's Butcher, Higher Steaks, Biocellion, Something Better Foods, Mission Barns, and Fora. Descriptions of GFI's role in supporting each of these companies is available upon request.

Outcome 5: **Creating Databases for Startups—**We created a number of databases for startups between 2016 and 2018, including our:

- Talent database, which serves as a resource for employers and founders looking for mission-aligned talent, including employees, contractors, and advisors.
- Supplier database, which helps startups connect with the business partners essential to growing their business.
- Distributor database, which contains information about distributors, redistributors, wholesalers, importer/exporters, and foodservice management companies that are creating cultivated meat and plant-based alternatives to animal products, from pre-market startups to international corporations. This database includes VC fundraising and M&A information.
- Referral database, including marketing agencies, lawyers, food science contract labs, and more.

Program 5

Program name:	International Engagement
Date commenced:	Feb 1, 2016 (this was GFI's launch date, and we were working internationally from that date; we hired our first team member focused on International work in July 2017)

Description:

Today's food system transcends national borders. In order to achieve permanent transformation of industrialized animal agriculture, we must execute a truly global strategy. GFI conducts our critical work not only in the United States (which represents only 4% of the global population) but also through our affiliates in Asia-Pacific, Brazil, Europe, India, and Israel:

- **GFI Asia-Pacific (GFI APAC)**: **APAC** contains approximately 42% of the world population. GFI APAC is currently focused on alternative protein advancement in China, Hong Kong, and Singapore:
    - China, as the most populous country in the world, is projected to be responsible for 27% of global meat consumption by 2026.
    - Hong Kong is one of the major financial centers in APAC and is the first-choice launch pad for global investors and corporations seeking to become active in this region.
    - Singapore has the most friendly and committed government to date in developing the alternative protein industry, including funding for public research, aggressive policy development, and a vibrant startup and R&D scene. By focusing on Singapore, we are also able to influence Southeast Asian markets including Malaysia, Indonesia, and Thailand, because products routinely flow from Singapore into these markets.

  GFI APAC has played a key role in advancing alternative protein development in the region and has ambitious goals to further advance alternative protein science, policy, corporate engagement, and innovation in the years to come.
- **GFI Brazil**: **Brazil** is among the world's largest red meat and chicken producers, consumers, and exporters. Until a few years ago, industry, government, and the public were generally unaware of alternative proteins in Brazil. In less than four years, GFI Brazil has established a wide network of companies, entrepreneurs, academic institutions, and industries eager to invest in and support the development of new alternative protein products and businesses. This industry network is also a crucial component of our policy work as many of these multinational corporations have close relationships with the government.
- **GFI Europe**: **Europe** presents enormous opportunities to advance GFI's mission: it has a population more than twice that of the U.S., a GDP approximately equal to it, is home to much of the world's scientific and commercial talent, and is one of the biggest potential markets for alternative proteins. Moreover, Europe influences the world through trade, migration, diaspora communities, and thought leadership. If the policy, regulatory, and consumer environment for alternative protein thrives in Europe, its positive impacts will reverberate across the world. GFI Europe therefore focuses much of its efforts on advancing favorable alternative protein policies and regulations throughout the European Union.
- **GFI India**: **India**, which is likely to be the world's most populous country within the next decade, is a prime market for alternative protein solutions to malnutrition, and these solutions are potential fuel for robust domestic economic growth. India is home to many world-class agricultural and biotechnology universities, as well as a deep talent pool. GFI India is focusing on establishing India as a sourcing base for plant-based protein and cultivating a scientific talent pool for cultivated meat research and manufacturing.
- **GFI Israel**: **Israel**, often referred to as the "Startup Nation," is renowned for its innovative technology, entrepreneurial spirit, supportive government policies, investment capital, and support for basic research. Israel is also recognized as a world leader in agriculture research, crop innovation, stem-cell research, tissue engineering, microbiology, and nanotechnology. In the past few years, FoodTech has gained momentum in Israel and has been identified as a promising growth sector for the Israeli economy. The country has since emerged as a hub for alternative protein innovation and cultivated meat company development. Israel's technological expertise, coupled with its entrepreneurial spirit and supportive government policies, ensures that it will play a significant role in the future of food globally.

GFI's Executive department works with GFI's affiliates in APAC, Brazil, Europe, India, and Israel to build on the most successful efforts of our SciTech, Policy, Corporate Engagement, and Communications departments. Each of our International Affiliates has its own strategic plan and pitch deck, which are available upon request. Across all regions, we leverage the expertise and resources developed by our U.S. team and devise new strategies and materials for local markets by taking culture, language, religion, and opportunities into account.

- International Government Relations (Policy/Research & Development)

GFI meets with government leaders around the world to advocate for alternative protein research and development funding and favorable regulations for alternative proteins.

We develop and deliver presentations for policy-relevant contexts that present alternative proteins as a key solution to pressing global problems. We also host summits and lead coalitions composed of government officials, lawmakers, industry representatives, and NGOs to help advance favorable policies for alternative proteins.

The International team has worked with GFI's Policy department to draft reports providing scientific evidence of the environmental benefits of alternative proteins over conventional meat production methods. We also cultivate relationships with nonprofit organizations abroad, including those focused on environmental, global hunger, consumer rights, and food safety issues, to build alliances and support for alternative protein technologies. We develop and lead training programs for these other nonprofits to leverage our most effective programs and ensure publicly disseminated information on alternative proteins is scientifically accurate.

We engage counsel in key jurisdictions to help us strategize a clear path to market for cultivated meat and yo analyze the applicability of current regulations in those markets.

- International Science and Technology

Although GFI's SciTech Department is the primary contact for scientists, our International team meets more regularly with scientists overseas than our U.S.-based team. These efforts create stronger relationships for GFI and generate increased engagement in research into alternatives to industrially produced animal products worldwide. Our International team is also spurring additional interest in alternative protein science by presenting at scientific institutions and conferences, connecting scientists with funds and research projects, and advocating for additional funds for research. To ensure that we capture and encourage international talent in this field, GFI awarded 64% of the research grant program's funds to researchers outside of the United States, including in China, Brazil, Israel, Portugal, the United Kingdom, the Netherlands, Switzerland, Norway, Estonia, Serbia, Australia, and Canada.

- International Innovation

GFI's International team helps alternative protein companies across the globe by providing guidance and research support that furthers their understanding of both local and international

markets. We also work across GFI's programmatic departments to provide these companies with business, scientific, and regulatory guidance. We establish partnerships with business schools and other academic programs to increase the number and caliber of entrepreneurs working on alternatives to animal products. We have also been instrumental in advising some of the pioneering plant-based and cellular agriculture companies around the world.

- International Corporate Engagement

Internationally, our corporate engagement priority is to work with the largest and most important meat, egg, and dairy companies whose funding, supply chains, connections, and power can meaningfully impact the development and commercialization of alternative protein foods.

In addition to accelerating the introduction of alternative protein products into the market, corporate relationships are vital to the development of regulatory policy. If large agribusinesses have a financial interest in alternative protein, they will want regulations favorable to their businesses. Many large companies have strong relationships with elected officials and some even have their own lobbyists. GFI can benefit from our corporate relationships to leverage their power and resources internationally. Like PHW in Europe, some corporate representatives also may be willing to serve on our Advisory Council, speak at conferences, or lend their names to our efforts, all of which increases the respect and excitement for the vast potential of alternative proteins. On a case-by-case basis, we work with large grocery stores and restaurant chains as this tailored engagement can have a large impact with minimal input.

- International Communications

We are developing a local communications presence in each of our international locations to promote our work and increase international dialogue around alternative proteins. We prioritize developing relationships with reporters and social media influencers and providing them with meaningful content. By expanding our public presence internationally, we are able to generate greater enthusiasm among key GFI target communities, expand our reach to potential international donors, encourage greater global investment in the sector, pressure legislators and regulators across GFI's regions to support favorable legislation, and influence corporations to add and promote plant-based products. We are developing country-specific materials that take local culture, religions, food systems, and priorities into account. Similarly, we are developing websites for each of our international locations in order to create more of a local presence, share GFI resources, and establish GFI as the go-to experts in the field.

Our international affiliates' ambitious anticipated outcomes for the coming years include:

In **Asia-Pacific,** our goal is to create abundant funding opportunities for open-access R&D through our research grant and other funding programs. Through close collaboration with local authorities, we aim to ensure cultivated meat is approved for sale in at least one jurisdiction in APAC. We plan to help local alternative protein startup ecosystems move from infancy into adolescence and to stimulate startups to launch products that specifically target the Asian

markets.

GFI Brazil aims to help the country become one of the top three largest plant-based meat producers in the world, exporting products to at least 15 different countries. Our goal is that ten new endeavors (startups or big food companies) will focus on biomimicking meat from plants, using the Brazilian biodiversity as the background for this research. We also aim to influence the Brazilian government to invest public funds into alternative protein research each year.

In **Europe**, our goal is that innovative plant-based and cultivated meat products will gain regulatory approval and come to market. We aim to help ensure that these products are approved for market introduction in a science- and evidence-based way, and not unfairly blocked by hostile interest groups. We also aim to ensure that EU labeling rules for alternative proteins are fair, rational, and support the growth of the sector. Our goal is to influence European governments to invest in alternative proteins research each year.

In **India**, we aim to influence the Government of India to adopt our Mission for Smart Protein and dedicate funding and incentives to alternative proteins and allied areas including: research fellowships and training programs at top universities; equipment such as extruders at the Mega Food Parks network we are building across the country; incentives for international companies (JUST, Sustainable Bioproducts, etc) to manufacture in India; facilities budgets for research centers including cultivated meat cell banks, pilot plants, and manufacturing innovation. We plan to help our top Indian university partner establish new protein programs including fellowships, academic courses and training programs, and chapters.

In **Israel**, we plan to help increase the number of scientists who are engaged in alternative protein research; this will be propelled by the GFI Israel PhD Grant Program which supports new researchers every year, our academic course that is given at six universities, and our GFI student clubs across the country. We plan to encourage the biggest food, agri, and pharma companies in Israel to become launchpads for alternative protein innovation, and to advance groundbreaking early-stage innovation based on local academic research.

We are happy to provide more detailed anticipated outcomes for each of our affiliates upon request.

How do you measure the outcomes of this program?

We establish our Objectives and their accompanying Key Results annually and supplement them with quarterly action plans. Every GFI team member ends every quarter by grading all of our Key Results on a 0 to 1 scale and then setting our key results (and associated actions) for the next quarter.

We also enter our actions and key results into Asana, a web-based platform designed to help teams organize, track, and manage their work. Asana allows teams to aggregate their completed actions and thus determine the extent to which each key result is achieved, again on a 0 to 1 scale.

For more detailed information, please read our response to ACE's question, "Is there anything else you'd like us to know about your charity's programs, not mentioned in the Program Tables?" in the *Other Program Questions* document.

Do you collaborate with other organizations in this program?

Our U.S.-based international engagement team collaborates with the Bill & Melinda Gates Foundation to implement a research project in India that explores millet varieties and characterizes the nutritional and functional properties of ingredients derived from these crops. The data generated from this project will help food companies formulate new products involving millet ingredients.

Each of our international affiliates collaborates with numerous partners. We are happy to provide more information about their collaborators upon request.

What are your top 5 biggest outcomes for this program prior to 2019?

We include below our top five outcomes between 2016 and 2018 for GFI Brazil (launched in January 2017), GFI India (launched in December 2017), and GFI APAC (launched in July 2018).

Outcome 1: **Accelerating Alternative Protein Industry Development in Brazil**—GFI-Brazil influenced alternative protein development among dozens of companies, entrepreneurs, and investors. We played a critical advisory role in helping the largest egg company in South America, Grupo Mantiqueira, launch a plant-based egg product N.Ovo after the company's director of strategy and innovation read about GFI in Brazil's largest business weekly. We also introduced the company to key suppliers, including ADM and Hampton Creek. (Note that N.Ovo came to market in 2019, yet most of GFI's critical support for the product's development was provided in 2018.)

Outcome 2: **Conducting Promising Plant-based Product Consumer Research in Brazil**—In 2018, we conducted the first study of consumer attitudes toward plant-based products in Brazil. With over 9,000 participants, the study was designed to assess whether the increasing consumer interest in plant-based foods that has been observed in other countries is also occurring in Brazil. This study also gathered data about consumer motivations to inform further industry development. The results were encouraging: nearly 30% of respondents reported that they are moving toward reducing their consumption of animal products or are already vegetarian, indicating that the Brazilian plant-based market has a potential reach of 60 million interested eaters. This study also showed that 76% of people surveyed consider reducing consumption of animal products a positive step. We have been using these promising research results to show companies that there is a growing market and demand for alternative protein products in Brazil.

Outcome 3: **Leading the Future of Protein Summit in India**—In 2018, GFI co-hosted the first ever Future of Protein Summit in India along with Humane Society International and the Centre for

Cellular and Molecular Biology, a world-class academic research institute with a biotechnology incubation center. The event facilitated critical connections among more than 300 policymakers, pioneering scientists, and innovative entrepreneurs from India and all over the world. Several key outcomes emerged at or as a result of the Summit, including the formation of India's first cultivated meat company Clear Meat, the public announcement of Shiok Meats (Singapore's first cultivated meat company focused on shrimp), a move by DuPont India Knowledge Park Director Dr. Ranjan Patnaik to a leadership role at Clara Foods, and the submission of a cultivated meat research proposal to the Government of India Department of Biotechnology by the co-hosts Centre for Cellular and Molecular Biology.

Outcome 4: **Establishing key government partnerships in India**—We built excellent relationships with key government agencies and officials across India, including the Central Government's premier policy think tank (NITI Aayog) and the Government of Maharashtra, a state with one-third the population of the United States, a large number of farmers, and India's financial capital Mumbai. Our team met with lawyers, foundations, and politicians, including the Honorary Health Advisor to the Chief Minister's Office of Maharashtra State, the Minister of Parliament for Mumbai Poonam Mahajan, and the Head of the Nutrition Program at TATA Trusts (India's largest foundation). Our government relationships have been key to securing funding for research projects and aligning interests towards alternative protein.

Outcome 5: **Launching Dao Foods in APAC**—Prior to our formal launch of GFI APAC, we co-launched Dao Foods, a company that helps entrepreneurs introduce innovative alternative protein in China. In 2018, Dao Foods hosted a plant-based food festival for 10,000 people in China and, in collaboration with Dongsheng Science and Technology Park in Zhonguancun (China's Silicon Valley), held the first U.S.-China Next Gen Good Food Forum to connect and foster learning between U.S. and China plant-based and cultivated meat entrepreneurs, agrifood industry experts, researchers, and investors.

We do not include achievements for GFI Europe or Israel because they did not officially launch before 2019.

How does your organization's work fit into the overall animal advocacy movement?

The Good Food Institute (GFI) is the only global organization that is harnessing food technology to develop systems-level solutions to animal agriculture. By replacing animal agriculture with non-animal alternatives on a global scale, we would feed our projected population of 9.7 billion in 2050 and would spare the lives of more than one billion animals every day.

We believe that a big part of what is holding back farmed animal protection is the cognitive dissonance experienced by the vast majority of people who continue to consume industrially produced animal products. It is difficult to support protecting animals while simultaneously causing abuse through our purchasing decisions. By removing animals from industrial agriculture and, via technological advancements, helping people choose products that do not cause harm, we are making it easier for people to extend their circle of compassion to animals.

Many animal charities in the United States and across the globe are focused on the critical work of shifting public attitudes about animal agriculture. Worldwide, there are only a handful of organizations like GFI that are working on technological solutions to factory farming, and they are all young. We believe that our work to advance technology elegantly complements the work that is being done to shift attitudes. It may even catalyze a shift in public opinion, as it may be easier for individuals to feel compassion towards animals when that compassion is not at odds with their diet or behavior.

As an effective altruist organization, we only take on projects that we believe to be very high impact, tractable, and neglected. Our record of achievements since our founding in 2016 (see our annual reviews at gfi.org/2019, gfi.org/2018, gfi.org/2017, and gfi.org/2016) demonstrates that our work constitutes a highly effective and necessary component of advancing the animal advocacy movement and may be the only hope we have of eliminating industrial animal agriculture globally.

How has the COVID-19 pandemic affected your organization's ability to carry out your programs?

GFI has sought to comprehend and rapidly adapt to COVID-19. In the short-term, we are focused on ensuring that each team member in the United States and across our global affiliates feels supported and that we're doing all we can to help them and their families navigate the rapidly changing reality of social distancing and work-and-schooling-from-home. Encompass, an organization that fosters racial diversity, equity, and inclusion in the animal protection movement, has praised us for our response to COVID-19, noting that GFI "demonstrated leadership in applying a DEI framework in responding to their staff's needs by creating more flexibility around work schedules, offering mental, emotional and financial support, and providing multiple avenues for nurturing connections." Our recent internal staff survey results echoed this sentiment.

Looking further ahead, the ongoing economic fallout from COVID-19 will change the alternative protein landscape globally and the ways in which GFI can be most impactful.

Our SciTech team recognizes that the benchwork of creating meat from cells and biomimicking meat from plants will be delayed if scientists and students are unable to go into their labs, so we are moving research and resources online to continue to support and inform their exploratory research. Our Corporate Engagement team is identifying the best ways to support industry partners without in-person meetings as they encourage their innovation and investment in the alternative proteins arena. Our Policy team is closely monitoring Federal and State governments' responses and is adapting strategies to encourage governments to support alternative proteins through public funding of R&D and rules that ensure a level playing field.

In light of public safety concerns, we made the difficult decision to cancel our 2020 Good Food Conference. Other than pausing similar in-person events and travel, we are unlikely to either suspend or launch any other programs in response to COVID-19, but are monitoring the situation and staying nimble. We sent an email to both our e-newsletter subscribers and annual fund donors with our official COVID-19 message of solidarity. Since then, we have expanded upon this message across our owned and earned channels to illustrate how alternative proteins can help address the urgent public health issues and supply chain vulnerabilities.

Given the economic impacts the pandemic will likely have on the alternative protein community, we've provided resources and hosted an online panel discussion to help startups adapt to the changes. We have also highlighted how public funding support for relevant R&D could yield positive economic benefits. Additionally, we have focused much of our public-facing campaigns and media outreach on how alternative proteins can help mitigate the disease risks (*USA Today*) associated with conventional animal agriculture while strengthening the protein supply chain (*Wired*). On top of additional (*Wired*) media (Politico) coverage (Morning Brew), we've received an uptick in requests for comments on the pandemic from major U.S. news outlets. Our stability and commitment to our mission and theory of change during these uncertain times has led to conversations with GFI's stakeholders, who have affirmed their support of GFI as an effective and impactful nonprofit.

As ACE knows, GFI's fiscal sustainability strategy is to spend on programs one year what we secured in gift and grant funding the prior year, so we will be able to sustain our existing operations and staff positions this year. If we don't meet our 2020 development goals, however, we'll have to scale back next year, and everything GFI is doing is extremely high impact, important, tractable, and neglected.

Have you taken any steps to improve programs that you deemed less successful (due to COVID-19 or otherwise)?

GFI has been a remote organization since our founding, but much of our external work is done face-to-face. As so many of our partners and industry stakeholders are working in similar home setups, we have used our remote work experience to pivot our engagement tactics and meet people where they are. While these programs were successful prior to COVID-19, we pivoted to ensure we could remain successful during COVID-19. We published a blog in April highlighting GFI resources that support good food entrepreneurs, scientists, and students with resources such as industry job listings, funding resources for researchers, and a free massive open online course.

GFI seized an opportunity for even further engagement and education during COVID-19. We are actively engaging stakeholders virtually through online presentations, workshops, webinars, courses, and communities. As a result, we have dramatically increased our online presence and have recruited thousands of additional stakeholders to the GFI community.

Presentations and Workshops

Between March and June 2020 alone, our U.S. team gave or hosted 75 virtual presentations and workshops that reached more than 10,000 people. Highlights include:

- Associate Director of SciTech Liz Specht, Ph.D. presented on a Merck KGaA Innovator's Club webinar to a live audience of 1,100 attendees. Approximately 40% of the registrants indicated that they are scientists, and only 40% of total registrants said they considered themselves already familiar with the cultivated meat field, so the webinar reached a key target audience: scientists who are not yet aware of the opportunities in this field.
- Our Corporate Engagement team presented alternative protein trends and investor opportunities to a large institutional investor audience on a webinar hosted by investment firm Redburn. They also delivered a similar presentation to senior bankers from Bank of America.
- Our Policy team virtually presented an overview of science and policy issues related to cultivated meat to more than 60 members of the Foreign Agricultural Service—FAS (the arm of USDA responsible for advancing foreign policy for U.S. agriculture abroad) to help educate the agency on the promise of cultivated meat as an export.
- Startup Growth Specialist Nate Crosser and Senior Scientist Elliot Swartz, Ph.D., presented a webinar on the State of the Cultivated Meat Industry to nearly 500 live audience members from top investment firms, startups, corporations, consultancies, and universities. The webinar covered top highlights and key insights from our latest report.
- Sustainable Seafood Initiative Manager Jen Lamy and Associate Director of Corporate Engagement Caroline Bushnell presented a webinar to 172 attendees on Opportunities in Alternative Seafood in conjunction with Arlin Wasserman of Changing Tastes. The webinar targeted entrepreneurs, investors, and established protein companies, and offered an overview of the current market landscape for plant-based and cultivated seafood.
- Our Corporate Engagement team presented highlights from the Plant-Based State of the Industry Report on a webinar that drew nearly 500 attendees.
- Senior Scientists Elliot Swartz, Ph.D. delivered a two-hour webinar on cultivated meat for Impact.Tech, which was hosted by the venture firm Fifty Years. A wide range of high impact attendees included alternative protein founders, serial entrepreneurs looking for their next venture, and funders from Prelude Ventures, Walton Enterprises, Y Combinator, Bluestein & Associates, Lionheart Ventures, Alpha Bridge Ventures, Congruent Ventures, FTW Ventures, Positive Ventures, and Seven Hound Ventures.
- Research Analyst Kyle Gaan and Foodservice and Supply Chain Manager Zak Weston presented a GFI NPD foodservice data webinar for 306 attendees. They discussed plant-based sales growth in both commercial and non-commercial channels, plant-based meat product categories, purchase volume, COVID-19 impacts, and more.
- GFI's Policy and SciTech teams hosted a webinar on *Food Safety Considerations in Cultivated Meat Production*. We invited a select group of nonprofits working on food policy and food safety to participate in order to address any concerns or misconceptions about cultivated meat production. Approximately 70 people from a diverse set of NGOs and scientists attended.
- Senior Scientist Claire Bomkamp, Ph.D., Associate Director of SciTech Liz Specht, Ph.D., and Senior Scientist Elliot Swartz, Ph.D. delivered a two-day workshop on alternative proteins for a large Korean conglomerate looking to invest in the sector.

- Foodservice and Supply Chain Manager Zak Weston presented on a panel for the Culinary Institute of America's Global Plant-Forward Culinary Summit, which attracted 466 participants to the live event and over 5,000 views on their Facebook Live stream.
- Our SciTech team presented on a cultivated meat webinar hosted by Millipore Sigma, which was attended by over 1,000 live participants, including a large number of scientists who were previously unfamiliar with the field.
- Senior Scientist Claire Bomkamp, Ph.D., participated in two pre-recorded virtual panels that will be part of the Institute of Food Technology (IFT) annual meeting in July. Claire moderate the first panel discussion on cultivated seafood, which included Dr. Kevan Main of Mote Marine Laboratory, Dr. Cameron Semper of the University of Calgary, Lou Cooperhouse of BlueNalu, Dr. Sandhya Sriram of Shiok Meats, and Maisie Ganzler of BAMCO. The second session was a Hot Topics session on alternative proteins generally, which included 20-minute talks from Claire, Lou Cooperhouse of BlueNalu, and Ravi Jhala of Perfect Day, followed by a Q&A session moderated by Angela Ichwan of Ardent Mills, who organized the session.

Our international affiliates also gave or hosted webinars to thousands of stakeholders, including:

- Director of SciTech Dr. David Welch and the GFI Israel team held five webinars with more than 100 investors, 150 alternative protein industry professionals, and 100 fermentation industry professionals. David delivered presentations on ag-tech opportunities, the science of alternative protein, fermentation, and crop optimization. He also hosted a webinar with 140+ members of the Coller School of Management at Tel Aviv University. We are receiving wonderful feedback about the events, such as a statement from the CEO of RedefineMeat (a 3D printing startup): "We are all thankful for having an organization like GFI who's helping, advising, and shining a light on a brighter future for the planet and all those living in it. Your team in Israel is exceptional and I'm sure your efforts will pay off big time!"
- GFI APAC Managing Director Elaine Siu spoke about the alternative protein sector on a webinar hosted by Sustainable Finance initiative (SFi), an impact investment membership organization in Hong Kong, to an audience of institutional investors, investment intermediaries, and corporate representatives. SFi representatives also discussed how to measure impact from these types of investments.
- GFI India Managing Director Varun Deshpande spoke at the Global Landscapes Forum (GLF) Bonn Digital Conference 2020. GLF is "the world's largest knowledge-led platform on sustainable land use, dedicated to achieving the Sustainable Development Goals and Paris Climate Agreement."
- More than 280 participants joined a webinar organized by GFI Israel and Tel-Hai College for the Israeli Food Tech ecosystem. This webinar addressed the implications of COVID-19 on the Foodtech field. GFI Israel Managing Director Nir Goldstein spoke about the Alt Protein opportunities, and GFI grantee Dr. Ofir Benjamin hosted.
- Director of SciTech David Welch, Ph.D. helped launch GFI Brazil's Alternative Proteins Science & Technology Webinar Series with a presentation called "Fermentation Is the Future of Alternative Proteins." There were 230 webinar participants coming from industry, startups, and research institutions.
- GFI Brazil's second Alternative Proteins Science & Technology webinar focused on shear cell technology and was presented by two speakers: Dr. Birgit Dekkers (Founder of Rival Foods) and Dr. Patricia Duque Estrada (Food Nutrition Specialist).

- GFI APAC Managing Director Elaine Siu spoke on a webinar for Food & Hotel Digital Week alongside Big Idea Ventures and Impossible Foods on the topic of "Alternative Protein in 2020 & Beyond: Scaling an Emerging Industry." The webinar drew approximately 550 online participants.
- GFI Brazil Scientific Advisor Katherine de Matos gave a talk about alternative proteins to 83 veterinary, biology, and nutrition students from UNISOCIESC.
- GFI Israel Senior Scientist Dr. Tom Ben-Ayre delivered a lecture to approximately 50 professors of biotechnology and food engineering at the Technion University, hosted by Prof. Ayelet Fishman.

We will continue to host virtual presentations, workshops, and webinars to keep industry stakeholders informed of developments and insights across the alternative protein sector.

Online Courses

Our New Meat Massive Open Online Course (MOOC) enrollment has grown from approximately 3,000 prior to COVID-19 to more than 5,000 individuals as of June 2020. *Business Insider* recommended signing up for the course in an article curating online opportunities to build your resume without leaving home.

In June, GFI India launched the Smart Protein Innovation Challenge, aimed at inspiring approximately 10,000 students across more than 100 Indian Universities to take our MOOC, read our materials, access mentorship, submit in-depth business/product plans, and compete for cash prizes.

GFI Israel launched the world's first academic course fully dedicated to hands-on alternative protein research at the Hebrew University. Since COVID-19 began, GFI Israel has moved the course online. Senior Scientist Tom Ben Arye, Ph.D. is already in discussions with the university to offer this course again next year, this time in English, so that we can record and share the presentations worldwide.

Online Community Engagement

Since COVID-19's inception, we have intensified and improved our strategies for engaging our online communities, including the GFIdeas community, the University Alt. Protein Project, and the Cultivated Meat Collaborative community:

GFIdeas Community

This year the online GFIdeas community has grown to include more than 1,200 members and has expanded to include both *The Business of Alt. Protein* seminar series and the new *The Science of Alt. Protein* seminar series.

- In March, we welcomed more than 150 new members to the community. Fifty attendees tuned in to the monthly GFIdeas *Business of Alt. Protein* Series on "Navigating the Alternative Protein Patent Landscape." More than 100 scientists attended the first installation of *The Science of Alt. Protein*, which featured Dr. Birgit Dekkers of Rival Foods' technical exploration into shear cell technology.

- In April, we welcomed more than 300 new participants to the community. We hosted a GFIdeas virtual panel with 100 *Business of Alt. Protein* participants tuning in to learn how entrepreneurs can navigate the COVID-19 crisis. We also hosted the second seminar on *The Science of Alt. Protein*, led by GFI collaborator and grantee Dr. Ricardo San Martin, which was attended by more than 250 scientists.
- In May, we welcomed more than 200 members to the community. More than 160 scientists attended our third seminar on *The Science of Alt. Protein*, which featured a presentation by GFI grant recipient Mari-Liis Tammik on using oat fermentation to improve plant-based meat. More than 80 attendees also tuned in for our fireside chat with Mike Schall on alternative protein sales strategies in the "new normal" as part of the *Business of Alt. Protein* webinar series.
- In June, we welcomed 320 new members to the community and unveiled our new GFIdeas Community landing page. We hosted our fourth seminar on *The Science of Alt. Protein*, featuring Dr. David Kaplan, which was attended by approximately 200 technically-minded people from around the world. We also hosted a *Business of Alt. Protein* seminar on "Amazon and eCommerce for Alternative Protein Companies During Covid-19," which attracted 55 participants.

We have also launched a GFIdeas India community for individuals who are interested in the alternative protein ecosystem in India. The Indian GFIdeas community has already grown to more than 500 members and has led nine webinars to support the country's alternative protein entrepreneurs.

Cultivated Meat Collaborative Seminars

Each month, we've continued to hold Cultivated Meat Collaborative Seminars for cultivated meat startups. We invite life science companies, biotechnology companies, and scientists to present information about their technologies and research that may be helpful to the cultivated meat industry. These presenters, all of whom have expertise in areas that directly apply to the process of making cultivated meat, share information and best practices to help accelerate the industry. Between March and June 2020, we have featured:

- CellMotions, which shared information about their bioreactor impellers that have capabilities to help with cultivated meat industry scale up.
- RichCore, which shared information about their scalable and affordable xeno-free (no animal ingredients) growth factors for the cultivated meat industry.
- Results of a recent consumer research focus group study and our new cultivated meat research tools directory.
- FGen, a Swiss biotech company with a technology that develops and optimizes cells and microbes, and the Advanced Regenerative Manufacturing Institute | BioFabUSA, a nonprofit organization that facilitates the manufacturing of engineered tissues and tissue-related technologies.

University Engagement

We are wrapping up our pilot semester of The Alt. Protein Project, a global, intercollegiate movement for students and researchers to expand the alternative protein movement on their campuses. Since the inception of COVID-19, Alt. Protein Project groups at UC Berkeley, UC Davis,

University of Colorado, Boulder, University of North Carolina, Chapel Hill, and Tel Aviv University have made notable progress in generating awareness, encouraging research and innovation, and building a sense of community among their student communities. We virtually met with global student leaders of the five student groups during COVID-19 to strategize ways we can keep students engaged while they attend classes remotely and live off campus. We also hosted two Ask GFI: Alt. Protein Careers call for 71 students and early-career professionals interested in pursuing alternative protein careers.

Online Resources

Since COVID-19's inception, we have developed or strengthened many of our virtual resources available to stakeholders, including

- For scientists: Scientific Research Database, Collaborative Research Directory, Plant Protein Database, Research Funding Database.
- For entrepreneurs & investors: GFIdeas Community Database, Talent Database, Investor Resource Guide.
- General sector resources: Plant-Based State of the Industry Report, Cultivated State of the Industry Report, Good Food Retail Report, Plant-Based Foodservice Market Overview, Sustainable Seafood Initiative Newsletter.
- For students: quarterly careers conversations call, Student Guide to Navigating the Alternative Protein Space.
- For a more comprehensive list of GFI resources, please visit gfi.org/resources.

GFI was built to adapt to a quickly changing food system and to be a sustainable, nimble, and resilient organization. We are proud that we have been able to directly engage more than 14,000 people since the COVID-19 lockdown and we look forward to continuing our online engagement efforts for the foreseeable future.

Have you cut off any unsuccessful programs to make room for other ones (due to COVID-19 or otherwise)?

We made two critical changes to our core programs in 2019 to ensure that our structure reflected and supported our global strategy, promoted greater efficiency, and fostered closer coordination across teams and their key audiences. We merged the International Engagement team with the Executive Team to enhance coordination with GFI-US at a high-level. We also made changes to the way we have been approaching investor and startup engagement, consumer research, and strategic planning. We determined that those functions, which were initially spearheaded by our Innovation department, would be better aligned if paired with complementary work taking place across our SciTech, Corporate Engagement, and Executive teams.

In the spring of 2020, we decided to change the role of consumer research within GFI to one that is less focused on conducting original research and more focused on market research. We know from experience that the market data we have commissioned from Nielsen, SPINS, and NPD have been invaluable to the corporations with whom we work and have helped with significant media pickup. Our intention is to invest more effort and resources into these kinds of actionable insights by partnering with market research companies who will conduct analyses like these on our behalf.

Is there anything else you'd like us to know about your charity's programs, not mentioned in the Program Tables?

GFI is guided by our North Star of "harnessing the power of food innovation and markets to accelerate alternative proteins to create a sustainable, healthy, and just food system." We use a tailored variant of the OKR (Objective and Key Results) system invented by Andy Grove (we call ours "OKRAs") to strategically align our efforts around our North Star. There are three layers of prioritization defined in the system:

- **Objectives** serve to define GFI's top six areas of focus and are written as future outcomes that the organization seeks to achieve. Our objectives, as described in the narrative above, are directly tied to our North Star and include:
  1. GFI influences the public sector to support alternative proteins.
  2. GFI fosters a strong open-access alternative protein research and training ecosystem.
  3. GFI influences the for-profit sector to prioritize alternative proteins.
  4. GFI is an alternative protein thought leader.
  5. GFI is an inspiring and well-run workplace.
  6. GFI operates from a position of financial strength.

- **Key Results (KRs)** are measurable targets that demonstrate how our organization is progressing towards each objective. These are specific, time-bound milestones coupled with a measurement strategy. The owners of the KRs for each objective provide grades, end of year projections, and short written summaries of KRs mid-year. Each quarter, teams grade KRs and speak to their trajectory to meet year-end targets. Graded KRs fall into three general categories:
  - **Green (0.8 - 1.0)**: A grade of 0.8 or higher indicates that either the KR was met, or significant progress has been made towards year-end targets. Because we establish KRs as stretch goals, we expect Green grading to be an uncommon achievement, rather than the norm.
  - **Yellow (0.4 - 0.7)**: A grade of 0.4 - 0.7 means that significant progress was made, but we haven't exceeded expectations. A deep evaluation is often helpful for KRs in this category to determine whether our underlying action plan is as effective as possible and whether we need to dedicate additional resources to the KR through year end.
  - **Red (0.0 - 0.3)**: A grade of 0.0 - 0.3 means that minimal progress has been made towards the originally intended outcome. If this is the case, it's important we consider why that is. Frequently the issue is not simply "we were too busy," but rather, "the actions we took towards this KR did not move the needle as we hoped." The outputs were there, but not the outcomes. If that's the case, that's a strong indication that a strategic shift needs to occur.

- **Action Plans** encompass the tactical, granular projects that are required to achieve one or more KRs. Each global affiliate and department is responsible for creating and collating actions into an Action Plan, and all actions have explicit owners and supporters. We create quarterly Action Plans for each Key Result and track our progress toward achieving actions in a master database to maximize interdepartmental collaboration and transparency between departments and among all of our global affiliates..

Any actions that are carried over are added to the OKRA document for the next quarter. A strong quarter for a team carrying out the OKRA process is a 0.6 - 0.7 average. Team members whose tasks fall within the 0 - 0.4 range recalibrate and determine how best to prioritize or change their approach going forward. It is important to note that OKRAs are solely a tool to help teams achieve their goals and grow; they are not used as individual performance evaluation tools.

In addition to entering our OKRAs in a master database, we also enter them into Asana, a web-based platform designed to help teams organize, track, and manage their work. While each objective and Key Result is measured uniquely, Asana allows teams to aggregate their completed actions and thus determine the extent to which each key result is achieved.

We craft our OKRAs at the end of each calendar year for the upcoming year. Our six organizational objectives are developed in collaboration across GFI U.S. and all GFI affiliates to ensure strategic cohesion, while KRs differ across geographic regions.

In 2020, we welcomed our new Strategic Planning Specialist, Brian Berry, who provides essential strategic support as we continue to fine-tune, track, and evaluate our OKRAs across the U.S. and international affiliates. By bringing greater focus and accountability to our goal-setting processes, Brian helps ensure that our cross-organizational priorities are well-coordinated, our evaluation metrics are solid, and that progress is clearly communicated to our staff.