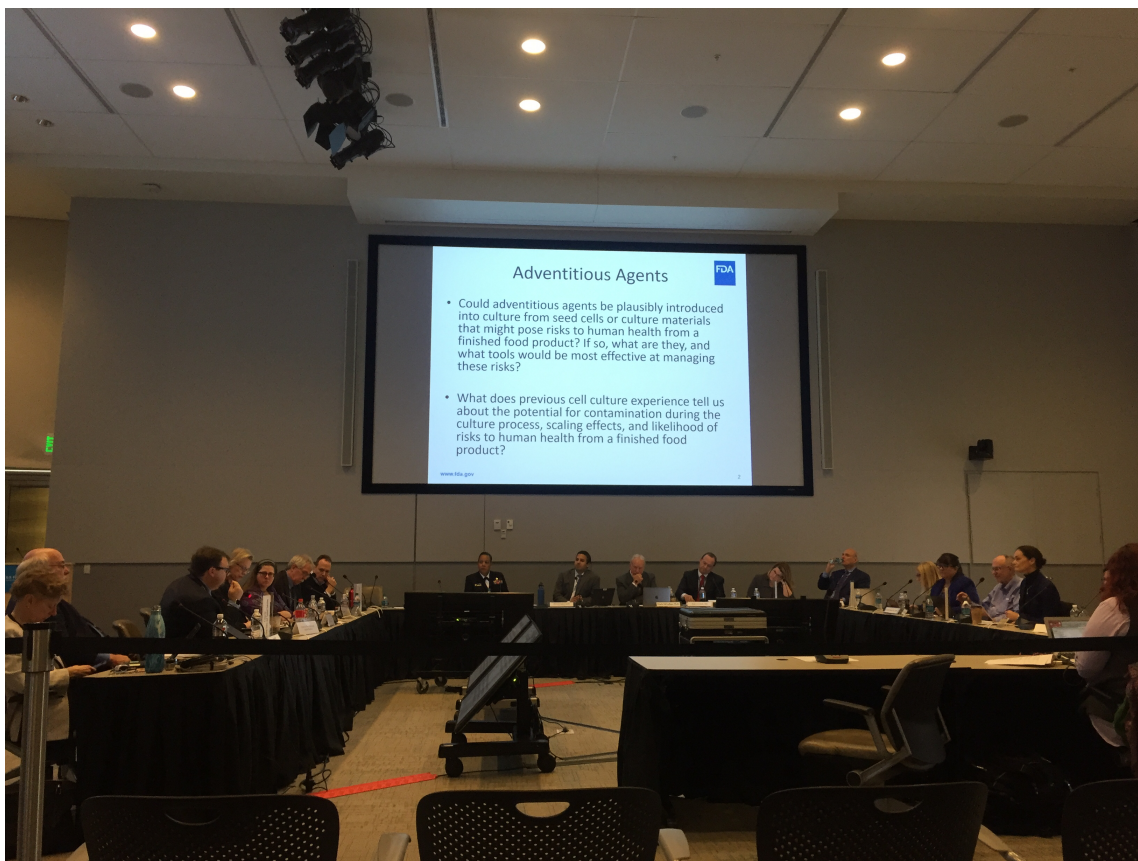




ANNOUNCEMENTS

The latest news from New Harvest:



New Harvest attended the Science Board to the FDA Meeting and the joint USDA/FDA meeting on cell-based meats

- **New Harvest travelled to Washington D.C.** to attend several important meetings over the future of cell-based meats. The team attended the [**FDA Science Board Meeting**](#) on October 22nd to discuss potential hazards and nutritional considerations in the production of foods via cellular agriculture. New Harvest also went to the USDA and FDA's [**Joint Public Meeting on the Use of Cell Culture Technology to Develop Products Derived from Livestock and Poultry**](#) from October 23rd to 24th.
- Some key takeaways from the meetings:

- The USDA and FDA stated that they will **jointly** regulate cell-based meats. This is the *first* time that both agencies will work together to regulate a field. The FDA, with its expertise in cell-cultured products, would likely be in charge of premarket quality and regulatory checks, and the USDA's Food Safety and Inspection Service (FSIS) would regulate the industry at scale in a similar manner to conventional meat players.
- There are still **many questions** over what cell-cultured products would look like at scale. Will *antibiotics* be required to keep the cell culture serum sterile? How will the products be *labelled*? And, most of all, *what will the product even be called*?
- **Share your thoughts on the future of food.** You can submit your public comments to the FSIS website [here](#) until November 26th.
- Did you miss **#NewHarvest2018**? You can relive all the action on our [YouTube channel](#). Check out our [recap video](#) and the first 4 talk videos from our 3rd annual conference!



The Tufts Research Team tries the Just Egg breakfast sandwiches!

UPCOMING EVENTS

- **Cultivate18** will be held on November 15th in London, UK. [Cultivate](#) is a multi-voiced discussion forum about cellular agriculture, and their 3rd

annual event brings together the British cell ag community. Cultivate18 is a **free event** open to anyone who is interested and would like to learn more about the field.

- The [4th International Conference on Cultured Meat](#) will be held from **December 2nd to 4th in Maastricht, Netherlands**. The conference is accepting abstracts submissions from interested researchers until *November 1st*.

NEW HARVEST FEATURES

Executive Director Isha Datar spoke at both the FDA Science Board Meeting and the USDA and FDA's Joint Public Meeting. You can check out her presentations below:

The FDA Science Board Meeting



New Harvest's [Comments](#) at the FDA Science Board Meeting on Cellular Agriculture

The USDA and FDA Joint Public Meeting



New Harvest's [Public Comments](#) on Food Safety at the Joint USDA/FDA Meeting



New Harvest's [Formal Public Comments](#) at the Joint USDA/FDA Meeting

- **ICYMI:** New Harvest Research Fellow **Jess Krieger**'s paper, "**3D skeletal muscle fascicle engineering is improved with TGF- β 1 treatment of myogenic cells and their co-culture with myofibroblasts**" is now available on the NIH website! Jess's paper investigates the complex interactions between different cells in tissue cultures to find the true role of **TGF- β 1**. You can access the [full article here](#). You can also check out Jess's [video presentation](#) where she walks you through the paper's findings and what the results may mean for *cell-cultured* meat production.

FROM AROUND THE WEB

Our favourite content from the world of cellular agriculture:

- **Dr. Paul Mozdziak** of NCSU will be presenting the seminar "Synthetic Meat: Practicality and Complexities" at the [Food Research Institute](#) at the University of Wisconsin-Madison on *December 4th*. You can tune in to the talk by signing up for the webinar [here](#).
- **Radicle** put together a report about the investment landscape in cellular agriculture **underwritten by New Harvest**. You can read about it and purchase a copy [here](#).
- **Can cell-based meat be kosher?** Written by Nathaniel Popper, this [New York Times article](#) explores one of the cultural obstacles ahead for cell ag: can cell-based meat be kosher and halal? Popper speaks to startup [Mission Barns](#) and how they are working to make *kosher* bacon. The article also pictures Viktor Maciag, who used to be an undergraduate researcher at Tufts University under New Harvest Fellow Natalie Rubio!
- **New Harvest Research Director Kate Krueger** speaks to Melody M. Bomgardner in the piece "[The To-Do List for 'clean' meat](#)" about New Harvest's role in supporting cellular agriculture research. The article also features images of animal muscle cells from New Harvest Fellow Jess Krieger.
- **Can scaffolding provide antimicrobial properties?** In an [article for New Food Economy](#), Joe Fassler takes a look at chitosan (from shellfish) and its ability to protect meat from bacterial contaminations. New Harvest Fellow Natalie Rubio is [researching](#) how chitosan *from mushrooms* can function as a scaffolding for cell-based meat. If used, could a chitosan scaffolding inherently protect cell-based meat from microbial contaminations?
- **Kurzgesagt** is a YouTube channel that makes incredible and insightful videos about a range of topics. Kurzgesagt recently released a [video about meat](#) and the issues in its production process for the environment (and human health). They also suggest a *potential alternative* to conventional meat.
- **Executive Director Isha Datar** contributed to the Institute For the Future (IFF) and the Bill and Melinda Gates Foundation report [Good Food is Good Business](#). The report features cellular agriculture as an area of opportunity that can change the *future of food* through further research and investments.

- **Can biotech research be more open and accessible?** This [Nature article](#) takes a look at the OpenMTA (Material-transfer agreement) legal framework that would improve the current framework for sharing biotech research. This is central to New Harvest's thesis, as "making research tools broadly available for use without restriction can accelerate the pace of research, improve the reproducibility of results, and save the time and costs that would otherwise be incurred by researchers recreating tools and materials in their own laboratories".

In the world of **startups**:

- **Geltor** raised a massive **\$18.2 million** in in [Series A round](#) of funding led by Cultivan Sandbox Ventures. Geltor uses cellular agriculture to grow animal-free **collagen** protein. Collagen has many functions and can be used to make many different products, like gelatin, leather, and cosmetic products. Geltor was also named on [CNBC's list of 100 startups](#) to watch. This list recognizes promising companies, and it's great to see Geltor's accomplishments this year recognized.
- In the world of *plant-based* meats, **Impossible Foods** was named one of [Time Magazine's Top 50 Genius Companies](#). Alongside companies like 23andMe, Apple, and Amazon, this list recognizes the top companies that are *inventing the future*. **Beyond Meat** also hired [investment bankers](#) for an initial public stock offering to become a public company. This would make Beyond Meat the *first* public stock offering from the wave of companies making alternatives to conventional animal meat. *Plant-based today, cell-based tomorrow?*

EMPLOYMENT OPPORTUNITIES IN CELLULAR AGRICULTURE

- **Geltor** is looking to [expand its team](#) (San Leandro, CA).
- **Modern Meadow** is actively looking to fill a [number of positions](#) (Nutley, NJ).
- **Perfect Day Foods** is looking for a [Senior Process Engineer](#) (Berkeley, CA).
- **Wild Type** is looking to hire a [Research Associate/Technician](#) (San Francisco, CA).
- **Memphis Meats** currently has [several openings](#) (Berkeley, CA).
- **Ecovative** has openings for an [Finance Specialist, Business Developer/Market Researcher, and Genetics Scientist](#) (Troy, NY).

- **JUST** has [several openings in cellular agriculture](#) (San Francisco, CA).
- **Is your cell ag company looking to grow?** [Get in touch](#) to have your job posting shared on the New Harvest newsletter.

This mailout was written by New Harvest community member Ahmed Khan from [CellAgri](#), a news and insights platform exploring the future of food with cellular agriculture. Check out CellAgri on [Twitter](#) and [Instagram](#)!

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