

HYPE, NEGLECT AND THE FUTURE(S) OF CULTIVATED MEAT

ARIANNA FERRARI, PhD

Center for Innovation Systems & Policy

Team “Societal Futures”

Arianna.Ferrari@ait.ac.at



Image Source: Gourmey



WHAT IS CULTIVATED MEAT?

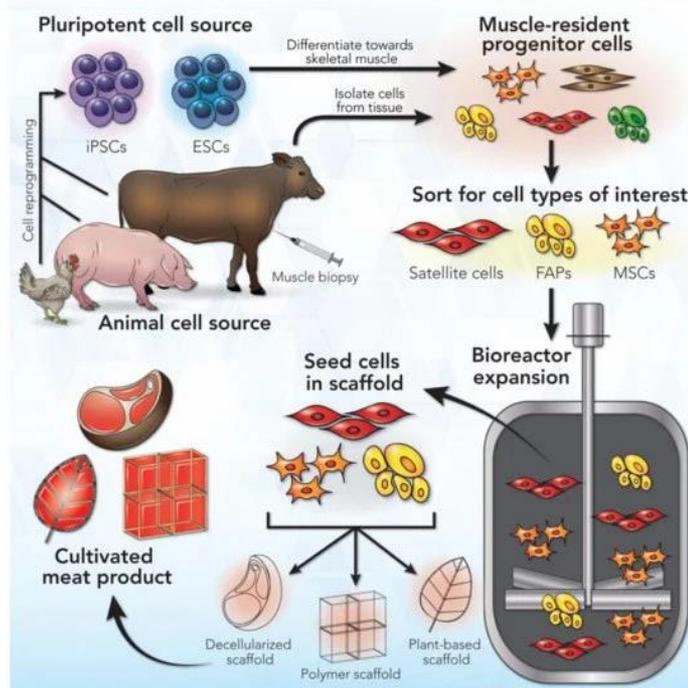


Figure 1 in Reiss, J.; Robertson, S.; Suzuki, M. Cell Sources for Cultivated Meat: Applications and Considerations throughout the Production Workflow. *Int. J. Mol. Sci.* **2021**, *22*, 7513. <https://doi.org/10.3390/ijms22147513>



<https://www.goodmeat.co/>



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meatly Products Process Purpose People News

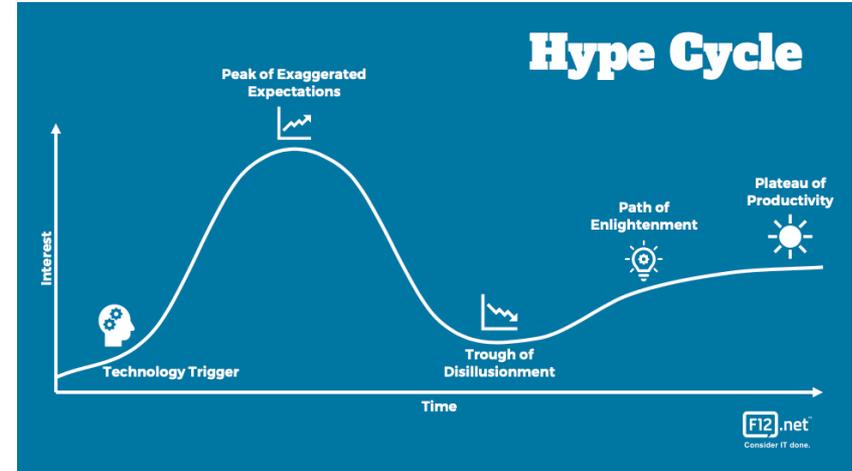
We make real meat, without animals.

Our pets can enjoy the real meat they need and crave, without ever hurting another animal.

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AGENDA

- Analysis of the Discourse and Developments of Cultivated Meat (CM) Along the Hype Cycle
- Analysis of the Visions Alimentering or the Hype Cycle
- Analysis of the Critiques to the Visions and the Hype
- Conclusions



The **hype cycle** framework was introduced in 1995 by Gartner analyst Jackie Fenn

HYPE : FROM TECHNOLOGY TRIGGER TO PEAK OF EXPECTATIONS

- 1950s–60s: **NASA Research**
- 1990s: research by **Willem van Eelen**, who secured early patents (first filed in 1997)
- Early 2000s: **First Patents and Public Interest**
Universities and startups began filing patents for tissue engineering of edible muscle.
Interest driven by sustainability, ethics, and food security.
- 2013: **Mark Post’s Cultured Burger**
Cultured from cow stem cells; funded by Google co-founder Sergey Brin
Cost: ~\$330,000; landmark for public awareness.
- 2010s–2020s: Acceleration in R&D and Investment**
Emergence of startups: Memphis Meats (UPSIDE Foods), Mosa Meat, Aleph Farms.
Technological advancements in scaffolding, bioreactors, and cell lines
- **December 2022: regulatory approval of CM in Singapore** (Eat Just’s chicken)



Image source: David Parry/PA Wire/AP



VISION IN THE HYPE: CM AS DISRUPTIVE 2000-2022

Visions of cellular agriculture as “animal-free future” (Datar 2016)

- Term “cellular agriculture” was coined in 2015 (New Harvest)
- Ending slaughter
- Avoiding industrial animal farming
- Advancing “animal liberation“ /overcoming the (ab)use of animals a moral revolution or to end barbarism → Forgacs (2013); Shapiro (2018) “second domestication” → leaving animals alone
- The narrative is embedded in a clear normative space (sustainability, justice, equality, animal rights)
- Positive reframe of climate change and biodiversity challenges

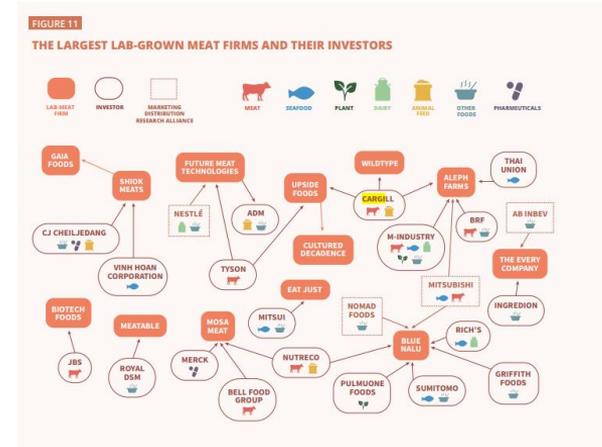
Share the complex vision. The point of cell ag isn't simply to make new products for people to consume. Instead, it's to use this tech to “disrupt” animal agriculture and build a more just, democratic food system.



How we could eat real meat without harming animals
2,395,591 plays | Isha Datar | TEDMonterey • August 2021

CRITIQUE AGAINST HYPE: QUESTIONING ANIMAL RIGHTS, SUSTAINABILITY AND CORPORATE POWER

- CM continues to promote meat as a solution to the problems of animal farming, at a time when there is growing interest in veganism and plant-based food alternatives (Poirier 2018).
- CM does not question the “meat paradigm” (cultural) (Cole& Morgan 2013, Poirier 2018, Twine 2024, Sanbomatsu 2025)
- CM does not question the need to drastically change animal agriculture
- CM is only a new source of profit for meat companies
- CM is not a solution to more sustainability (IPES, Hocquette et al. 2024)



While a number of start-ups initiated the alternative protein boom, the market is increasingly dominated by a handful of ‘protein giants’ – and tied into the investment strategies of opaque financial players like BlackRock and Vanguard (IPES (International Panel of Experts on Sustainable Food Systems) “The Politics of proteins”, 2022, p. 55)

TROUGH OF DISILLUSIONMENT: BANS & MISINFORMATION

- **Coldiretti** is Italy's largest farmers' association led a public campaign against “synthetic meat.”
- Claimed CM is “*dangerous for the environment, unsafe for human health, limits consumer freedom, favors monopolies, and breaks the bond between food and nature.*”- use of **misinformation & distrust in EU authorities (EFSA)** (new protest in april 25)
- **Italy: Law N.172/2023** banned the production and commercialization of cell-cultured food and feed.
- Justified as protection of traditional agriculture and national food identity.
- **January 2024** Joint note submitted by **Italy, France, and Austria**, supported by 9 other EU delegations to the EU council
- Declared CM a “*threat to primary farm-based approaches and genuine food production methods*” central to European farming values.
- **U.S. State Bans (2024–2025)**; **Florida, Arizona, and Tennessee** passed laws banning the production and/or sale of cultivated meat.
- Motivated by **protection of traditional agriculture and food safety concerns.**



<https://dailystomer.in/wp-content/uploads/2023/11/francesco-lollobrigida-1-618x412.webp>



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Poster of Coldiretti's campaign for the ban on cultivated meat



Courtesy: Ron DeSantis/X

PATH OF ENLIGHTENMENT

- Term “alternative proteins” gained worldwide momentum
- CM, plant-based, precision fermentation, singular cell-proteins and (minor) insects
- **Major international reports support alternative proteins** (EAT-Lancet Commission (Planetary Health Diet- 2015); IPCC (Climate Change and Land: Special Report, 2019); WHO & FAO (Sustainable Healthy Diets 2019, 2024); European Commission (Everyone at the table 2022, Food 2030: pathways for action 2.0 2023))
- **The assumption is that to reduce meat and fish consumption, alternative proteins are needed**



PUBLICATION | 2020

Food 2030 pathways for action – Alternative proteins and dietary shift

Digital Food and Nutrition Security

This pathway seeks to provide a way forward for future R&I policy in Europe and beyond. It is 1 out of 19 FOOD 2030 Pathways for Action, which target key R&I leverage points for transitioning towards sustainable, resilient, healthy and inclusive food systems that leave no one behind. The FOOD 2030 Pathways for Action will help to underpin Horizon Europe, support evidence-based policymaking and implementation, foster education, skills and capacities, boost innovation and investment, encourage synergies and policy alignment. The achievement of these objectives will be assisted by a dedicated Horizon Europe Food Systems Partnership expected to be launched in 2023 that will provide a multi-actor R&I governance platform and process to deliver co-benefits in line with the European Green Deal. This Pathway Alternative Proteins and Dietary Shift is furthermore relevant to policies such as: the Common Agricultural Policy, the Common Fisheries Policy, the European Green Deal (the Farm to Fork and Biodiversity strategies), the EU Regulation on Novel Foods, the Updated Bioeconomy Strategy and 'A Clean Planet for All'. Changing and diversifying our dietary habits can be an effective way to tackle the issues of climate change and natural resource scarcity, and help providing sufficient, nutritious, safe, accessible and affordable food to a rapidly growing global population.

PLATEAU OF PRODUCTIVITY: COLLABORATION AND „SILENT REFORMULATION“- 2022-TODAY

- **Complementarity rather than opposition** (no longer substitution), also in new technologies of CA such as precision fermentation
- Focus on **growth of the market**- Impact return of the capital employed: The emission savings can be translated into a financial gain when assessed in terms of the market value of avoided CO₂e emissions per dollar invested in mitigation efforts.
- From loudly declaration of vegan/plant-based to more “**discrete branding**” (focus on flavour and price instead of ethics)

The quiet shift to alternative proteins: Collaboration and silent reformulation are reshaping the industry, say experts

The alternative proteins category is continuing to grow while maturing from its disruptive origins to a more integrated and collaborative approach with "legacy" industries like meat and dairy producers, according to industry experts.

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Wak Huan, Content Editor
September 20, 2024



REPORT MAR 24, 2021

Food for Thought: The Protein Transformation



expert at ProVeg explained that companies are quietly reformulating products, such as mayonnaise, cakes, or soups, to replace animal-based ingredients with plant-based alternatives, often without informing consumers upfront. "People's lives are complicated enough – they don't want to think about sustainability when shopping or cooking," van Haperen explained. "The more silent[ly] we can do it, the easier."

VISION IN THE PLATEAU: THE SILENT REFORMULATION

- Shift from focus on meat to focus on protein (in policy and in industry)
- Rebranding with “protein portfolios”
- Nudging without reference to ethics or sustainability



[https://www.globenewswire.com/news-release/2025/03/12/30410750/en/Alternative-Protein-Market-to-Reach-US\\$-589-B-Billion-by-2035-Driven-by-Sustainable-Innovations-and-Rising-Consumer-Demand-Future-Market-Insights-Inc.html](https://www.globenewswire.com/news-release/2025/03/12/30410750/en/Alternative-Protein-Market-to-Reach-US$-589-B-Billion-by-2035-Driven-by-Sustainable-Innovations-and-Rising-Consumer-Demand-Future-Market-Insights-Inc.html)

"We started with big vegan banners to differentiate our bars, but once we became fully plant-based, we dialled it down to just a small front-of-pack 'v' logo," van Drie explained. "We don't want to scare off regular consumers – we put ourselves on the regular chocolate shelf and focus on taste."

Kim van Drie, marketing manager at Hands Off, a plant-based chocolate brand, [The quiet shift to alternative proteins: Collaboration and silent reformulation are reshaping the industry, say experts](#)

CRITIQUE AGAINST HYPE AGAIN : THE NEED FOR FAIR FOOD TRANSITION

- The label **“alternative proteins”** is **not neutral**, because it already indicated animal-based food as the standard (this is result of cultural, socioeconomic factors and it is not uniform globally).
- **Greenwashing & Industry’s Leading Role** in reshaping food systems (Duluins & Baret 20204)
- **Prioritization of industrial transformation (of food production)** over systemic change (Guthmann 2022; LeBlanc 2023)
- **Lack of a coherent strategy** for promoting a sustainable food transition in EU (Overproduction of proteins & focus on 1:1 substitution rather than systemic reduction) (Duluins & Baret 20204)

The quiet shift to alternative proteins: Collaboration and silent reformulation are reshaping the industry, say experts

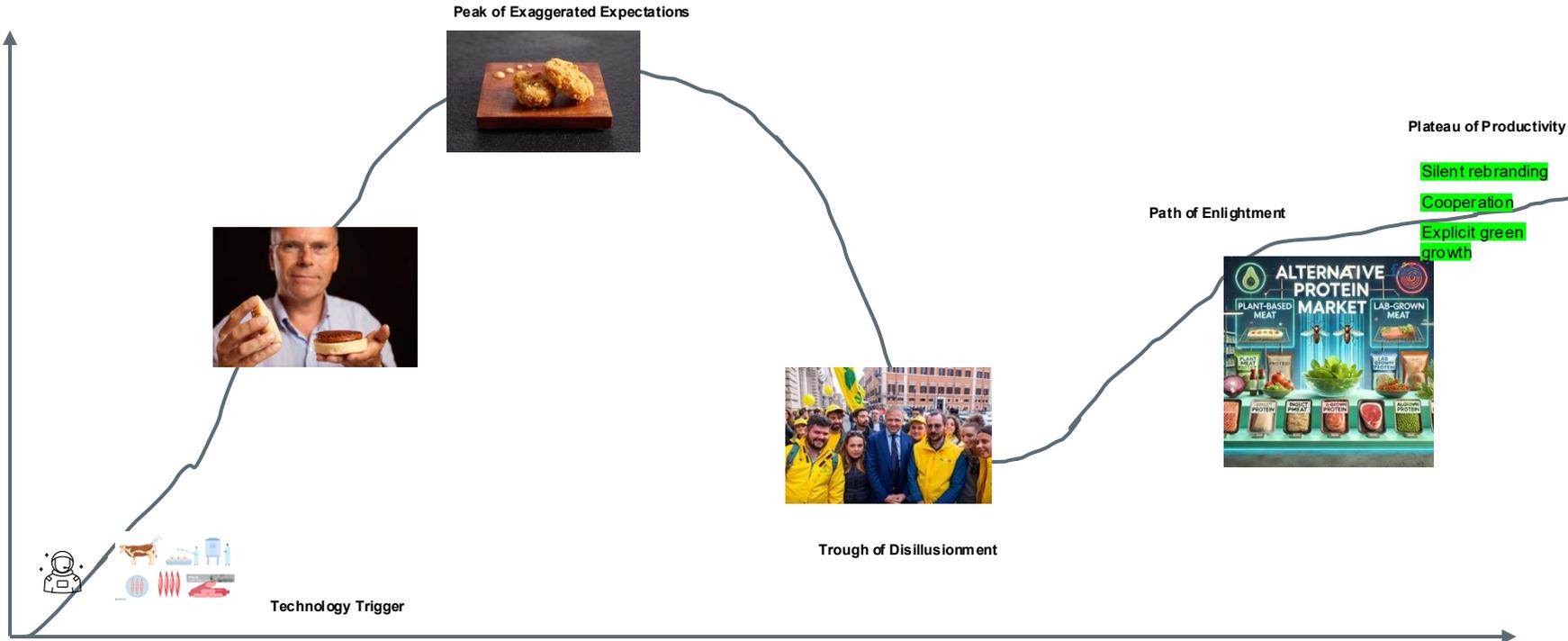
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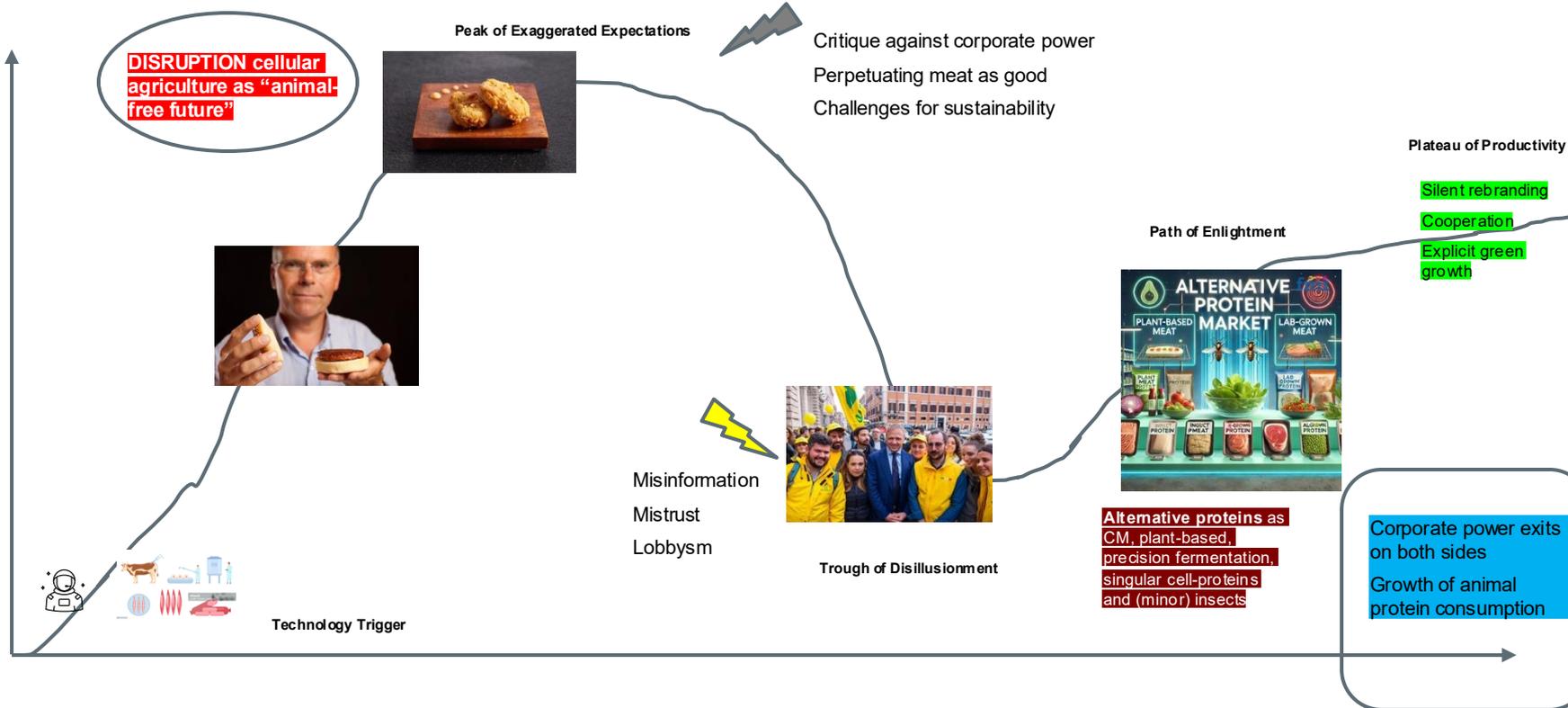
By Matti, Content Editor
September 20, 2023



RECAPITULATION: THE HYPE CYCLE OF CM



RECAPITULATION: THE HYPE CYCLE OF CM



CONCLUSIONS

- **The 'Meat-Complex' Remains Undiscussed**

Meat remains a structural and cultural taboo, with a tendency in policy and discourse to avoid confronting its central role in (un)sustainable food systems.

The issues at stake are largely **cultural, ethical, social, and religious**, demanding broader systemic rethinking.

- **The political Critique to CM is often mixed with misinformation and mistrust in public authorities**

Misinformation and mistrust are further fueled by the failure to acknowledge and meaningfully engage with cultural concerns, which are often trivialized or dismissed.

- **Tensions Between (Green) Growth and Just Transitions**

Efforts to promote economic growth—even under a green label— conflict with ecological limits and the normative goals of “animal-free” agriculture rooted in justice and sustainability.

In order to navigate the hype and the critiques we need to talk about:

- **Futures of animal agriculture**
- **Role of industrial food production in a just and sustainable food transition**

THANK YOU!

Contact me for more questions!
arianna.ferrari@ait.ac.at

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