



The American University of Rome

<u>Master in Food Studies</u> and <u>Center for Food Studies</u> with the scientific patronage of the European Society for Rural Sociology

CALL FOR PAPERS

Conference

Novel Foods and Novel Food Production – a Contribution to Sustainability and Food Security?

Friday, 10 March 2023

Auditorium, via Pietro Roselli, 2, Rome

The Conference held in 2019 and the subsequent webinar in 2021 at the AUR focused on changes in food diets and their implications for sustainability. The forthcoming conference in March 2023 proposes to continue this discussion by focusing on the unparalleled wave of food product innovations sweeping through the global food system as of the second decade of the new millennium. Prior to this, the dominant players in the food industry had largely adopted a defensive stance, reacting to pressures from a variety of social movements and public policies in favour of healthier diets and a healthier planet. Since then, however, they are being challenged by a new generation of food start-ups who, with the help of a novel innovation ecosystem, are introducing products which are increasingly independent of their original raw materials. Food security and food sustainability as the key global challenges of a world which combines continued population growth with accelerating urbanization and rapid depletion of natural resources are high on the list of motives of these mission-oriented entrepreneurs. The dominant players in the food systems are themselves now investing and exploring these new lines of products.

The central focus is on producing substitutes for the animal protein food/feed chains since these are seen as the principal source of biodiversity loss, climate change and land utilization by agricultural activities. But it extends also to a whole range of traditional food crops including coffee and cocoa. These innovations depend heavily on the so-called disruptive technologies of big data analysis, machine learning and artificial intelligence for the identification of new molecules with precise physical and functional characteristics. They also draw on advances in biotechnology for gene editing, precision fermentation and cellular cultivation.

A parallel wave of innovation, in the form of controlled environment agriculture (CEA), encompassing a variety of indoor farming systems and vertical farming, aims to free fresh produce production from the risks and rhythms of the natural environment, integrating it into urban life. As natural resources become scarcer or increasingly contaminated and as climatic conditions become harsher, strategies of resistance to the environment, (rustic varieties and races), are combined with or replaced by those of protecting from, controlling the, and, at the limit, substituting for, "nature" in varied types of CEA.

We are no longer dealing with the confection of recipes protected through industrial secrets but with advanced technology solutions increasingly protected by patents and other intellectual property options. While the innovation model was initially dominated by U.S. firms and finance capital, it has quickly





become a global phenomenon, with a proliferation of high-tech food hubs, often stimulated through public policies and funding, especially in countries with abundant capital but limited natural resources. The regulation of these new processes and products is still in its infancy and social acceptance remains an open question. The economic, social and ecological consequences are similarly as yet undecided.

Are we going to see the emergence of a new generation of "mission-driven" food firms or will they be absorbed by the "legacy" global players? Will these innovations lead to new levels of economic concentration, or will they offer new possibilities for more decentralized and democratic forms of control? To what extent will they lead to a reconceptualization of town-country relations? How will they affect the labor market in food and agriculture? Will they help ensure food security at different scales? What is their impact for the health and sustainability of diets?

References

- FAO, 2013. Edible insects. Future prospects for food and feed security, Forestry Paper 171.
- Frezal, C., C. Nenert and H.Gay, 2022. "Meat protein alternatives: Opportunities and challenges for food system transformation", *OECD Food, Agriculture and Fisheries Papers* No.182, OECD, Paris.
- Guthman, J., & Biltekoff, C. 2021. Magical disruption? Alternative protein and the promise of dematerialization, *Environment and Planning E: Nature and Space*, Vol. 4(4) 1583–1600
- Heinrich Böll Stiftung, Friends of the Earth Europe, Bund für Umwelt und Naturschutz, 2021. *Meat Atlas. Facts and Figures about the Animals we Eat.*
- IPES-Food, 2022. The politics of protein: examining claims about livestock, fish, 'alternative proteins' and sustainability
- Patil, U., & Sandoval, L. 2021. *India Emerges as a Burgeoning Market for Plant-based Meat Substitutes*, USDA Foreign agricultural Service and GAIN Voluntary Report no. IN2021-0064
- Raychel Santo et al. 2020 Considering Plant-Based Meat Substitutes and Cell-based Meat: a Public Health and Food Systems Perspective, *Frontiers in Sustainable Food Systems*, 4:134.
- Sexton, A.E., Garnett T., & Lorimer, J. 2019. Framing the future of food: The contested promises of alternative proteins. *Environment and Planning E: Nature and Space* 2 (1): 47–72
- Stephens, N. et al.2021. Bringing cultured meat to market: Technical, socio-political, and regulatory challenges in cellular agriculture, *Trends in Food Science and Technology*, 78:155-166.
- Wilkinson, J. 2019. *Large-scale forces, global tendencies and rural actors in the light of the SDG goals.* 2030 Food, agriculture and rural development in Latin America and the Caribbean, No. 5. Santiago de Chile. FAO.
- Wilkinson, J. 2023 (forthcoming). O futuro do sistema alimentar no mundo, na China e no Brasil, Editora Appris, Brasil.
- Zimberoff, L. 2021. *Technically Food. Inside Silicon Valley's Mission to Change what we Eat*, Abrams Press, NYC.





The aims of the Conference are to contribute from a social science perspective to the knowledge and empirical evidence on the theme of Novel Foods and Novel Food Production; in particular:

- To map the state of the arts on novel foods and controlled environment agriculture and identify the main lines of debate.
- To contribute to the definition of adequate forms of regulation and policies for enhancing their democratic control
- To assess current knowledge on novel foods consumption and their impact on the healthiness and sustainability of diets.
- To review the implications of novel foods and novel food production for the eco- and social systems.

Keynote speakers: Prof. John Wilkinson Federal Rural University of Rio de

Janeiro (in person)

George Monbiot, Writer, Journalist, Environmental Activist (online)

Organizing and Scientific Committee Members

Organizers: Maria Grazia Quieti, Program Director, Master in Food Studies,

The American University of Rome (AUR)

m.quieti@aur.edu

Maria Fonte, Adjunct Professor, AUR

Former Professor University of Naples Federico II. m.fonte@aur.edu

Committee Members

John Wilkinson, Federal Rural University of Rio De Janeiro

David Goodman, Emeritus Professor, UC Santa Cruz

Colin Sage, Independent Scholar

Mara Miele, Cardiff University

Materne Maetz, Former FAO Senior Policy Officer and Independent Researcher

Master in Food Studies faculty: Giacomo Branca; Arianna

Consolandi; Marzia Mauriello; Dalia Mattioni; Chiara Perelli;

Valentina Peveri; Laura Prota; Rita Salvatore.





Abstract submission by authors:

We invite extended abstracts (800-1,200 words) including the following themes:

- The institutional characteristics of the new food innovation ecosystem
- Novel forms of food production: Controlled Environmental Agriculture (CEA), characteristics, social and governance dimensions
- CEA as a reconfiguration of rural urban perspectives?
- Novel foods: the extent of their adoption and their impact on diets
- Consumer responses: vegetarianism, veganism and flexitarianism
- Responses of different social movements environment, animal welfare, food and health, indigenous foods
- Alternative proteins, including insects: a new problem for food security or part of the solution?
- Plant-based proteins: consumption and production issues in the EU and US
- New forms of intellectual property in food and implications for food security
- The impact of current innovations for agriculture, farmers, global food chains and local food systems
- Current innovations and new axes of global governance.

Deadline for the extended abstracts (800-1,200 words, including introduction, methodology, results, discussion and conclusions) and a short CV: 16 December 2022
Send submissions to foodstudies@aur.edu

Notifications of acceptance status will be made by January 2023.

Conference Fee: 95 Euro Fees for non-AUR students 35 Euro AUR alumn** 35 Euro

14 November 2022