Cellular Agriculture Europe

French Senate's informative report about "cellular food"

Key points

- Initially, the economic affairs committee of the Senate was tasked to conduct an inquiry about "*in vitro meat*" and I note that the title of the report now refers to "*cellular food*".

- Part I, entitled *"the development of cellular food does not correspond to a desirable food model",* includes historical, anthropological, ethical and philosophical arguments against cellular agriculture, even rejecting the terms "cellular agriculture". More precisely:
  - Reference is made to foetal bovine serum (FBS) as a major contradiction between what the cellular agriculture sector claims and what it actually does.

  - Senators deplore that the actual need for cellular agriculture has not been questioned, stressing that *"it is not because a technological innovation can be done that it must be done".* Environmental and animal welfare aspects are not sufficient to justify such technological innovation, according to them.

  - In reaction to the cellular agriculture sector's argument according to which cultivated meat could replace imported meat of poor quality, the Senators objects that the *"junk food of the future"* shall not replace the "*junk food of the past*".

  - Senators also fear that cellular agriculture could accelerate the decline of extensive animal husbandry. *"Animal farming is a national pride".*

  - This first part also includes a section dedicated to the authors' neutral approach, to ensure that the report includes all information a legislator needs to take decisions and regulate this activity. The authors also insist on the fact that taking this angle does not that they support cellular agriculture, most certainly for political reasons.

  - In this section, the authors mention that Italy's proposed ban is not the right way as it only bans cultivated meat produced in Italy and not in other member states.

- Part II, entitled *"Issued from laboratories, cellular food is still unknown and provokes scepticism in France"* portrays the cellular agriculture sector and includes a number data provided by Cellular Agriculture Europe, its members or the Good Food Institute. In addition, this part includes:
  - A small section according to which precision fermentation is "*more promising*" than cellular agriculture (how neutral!).

  - An entire chapter on wording and denomination. The authors have decided to use FAO's terms "cell-based foods" and noted that, from a mere legal standpoint, the term "meat" could apply to cell-based products. They nevertheless quote researchers and stakeholders who are strongly opposed to the use of the term "meat".

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- The authors stress the lack of information about the growth media and production inputs.

- In a section on the financing of cellular agriculture, the authors explore *why* cellular agriculture start-ups receive funds (i.e., research valorisation, concept of effective altruism and environmental considerations). This section also kills the idea according to which the USA and big American companies are fomenting a war against France's culture and culinary traditions. The very existence of this section is clear evidence of latent anti-Americanism in French politics. Reference is also made to large meat processors' investment (i.e., JBS or PHW-Gruppe).

- In the section dedicated to the novel foods process, we learn that the authors heard DG SANTE and EFSA representatives[1]. The latter reacted to our document and intervention deploring the lack of pre-submission dialogue as it exists in other countries: EFSA stressed that the new Transparency rules include the possibility to seek pre-submission advice and the novel foods procedure is there to ensure equal treatment for all applicants. This section also insists on the fact that the proposed authorisation of a cell-cultured product is adopted by qualified majority, meaning that France alone could not veto it. The EU regulatory process is considered as longer as well as stricter than the US and *a fortiori* Singapore processes.

- In a chapter deploring the absence of anticipation and of a clear strategy around cultivated meat in France, the authors quote a press interview with Agriculture Minister Marc Fesneau, who is clearly and strongly opposed to cellular agriculture. On the other hand, the authors also stress that our French members Gourmey and Vital Meat have received public funds.

❖ Part III, entitled *"Cellular food is a promising innovation on paper, but certainly not essential to food transition, and not without any impact on animal farming"* insists on the following aspects:

- Trade and economic aspects: not investing in this technology on the European soil would have a cost as Europe could potentially depend on technological progress obtained in third countries. It seems that the European Commission supported this idea.

- Food security and access to protein: the authors underline that the EU imports more calories than it actually produces.

- Animal welfare*:* whereas the authors admit the clear asset of cellular agriculture in this field, some pundits consider that cellular agriculture would be the last step of animal farming, where the incubator replaces the cow and where certain animal races would disappear from the surface of the Earth.

[1] See also page 136 of the report.

- Environmental footprint: the authors stress that 14,5% of France's entire carbon footprint is due to husbandry. Deforestation provoked by animal farming is also mentioned. The authors then refer to the CE Delft life cycle analysis as well as to *Prospective life cycle assessment of a bioprocess design for cultured meat production in hollow fiber bioreactors*[2], presented as an independent scientific study.

- Food safety: the authors call for more studies on the possible "genetic drift" as well as on the use of GMOs in the production process. Contamination risks and allergenicity are also pointed out by the authors. Although the use of antibiotics is noted by the authors, they nevertheless consider that cellular agriculture could be one solution to fight antimicrobial resistance.

- Nutritional aspects: while experts believe that the offer in plant-based proteins shall grow and improve and noting that eating meat is not essential *per se* to have a balanced diet, the authors question the actual need for cultivated meat.

- Socio-economic dimension: The authors are quite sceptical about the cellular agriculture sector's argument according to which cultivated meat will not replace conventional meat and shall have a limited impact on conventional husbandry. In the authors' view, cultivated meat will be in direct competition with meat coming from extensive farming. They insist on the economic risk for France's rural areas. Reference is also made to the RESPECTfarms initiative, described as "laudable" in theory but unrealistic and not credible.

❖ Part IV, entitled *"Cellular food: being vigilant to better regulate and control the technology"* consists of 18 recommendations, including:

- Recommendation 2, asking for more scrutiny from the European Parliament and national parliaments in the decision-making process. For the record, right now the comitology process gives a very small margin of manoeuvre to the European Parliament.

- Recommendation 3, asking ANSES to conduct a risk analysis in parallel to EFSA!

- Recommendations 4 and 5 to provide for a moratorium on the use of FBS and limiting the number of bioreactors through taxation.

- Recommendation 7, forbidding the use of the term "meat".

- Recommendation 10, forbidding the blend of conventional meat with cultivated meat.

- Recommendation 13 and 14, aiming to create a research centre combining INRAE and CNRS to better understand cellular agriculture techniques AND to commission socio-economic impact assessments.

[2] See https://www.sciencedirect.com/science/article/pii/S0048969722051506