

TAL 797 - Seminário

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Cultured meat: Processes and Perspectives

Pós-graduando: Raick Alves Ribeiro

Orientador: Luis Antonio Minim (DTA/UFV)

Nível: (x)MS ()DS

It is expected that by 2050, the world's population will reach approximately 9 billion individuals, resulting in a considerable increase in protein consumption, since they are fundamental components of the human diet. Considering that conventional models of animal protein production require the use of a large amount of natural resources, alternative ways of offering high-quality protein are being studied, and cultured meat is being developed as a potentially efficient alternative. Cultured meat is genuine animal meat produced in a laboratory using cultivation technology in a sequence of bioreactors, where genuinely isolated animal stem cells undergo successive multiplication, followed by cellular differentiation and maturation, resulting in material with the same composition, sensory characteristics, and three-dimensional structure as conventional meat, differing from the conventional model of meat production that involves the raising and slaughter of domestic animals. The acceptance of cultured meat is an important factor in the success of this product and has been studied, highlighting both positive aspects related to environmental factors and objections. These objections are mainly due to concerns about unknown taste, attractiveness, ethical issues, price, and safety. However, these concerns are likely to change as this concept approaches more intense commercialization. Although the timeline for visualizing the production of cultured meat in quantities that meet demand is still uncertain and may take some time, there are expectations that prices will become comparable and competitive, contributing to food security as well as the reduction of environmental impacts associated with animal protein production.

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Dr. Luis Antônio Minim

Raick Alves Ribeiro