Date: Apr. 1, (Mon.) 2024 16:00-18:00

Venue: Seminar Room, Building F, Faculty of Medicine

Myogenic differentiation, bioprocess optimization, and tissue engineering in a Pacific salmon model: using cellular agriculture technologies for sustainable seafood production.



Dr. Aryé Elfenbein, MD, PhD. Co-founder, Wildtype

World seafood consumption has been expected to double between 2015 and 2050, leading the United Nations FAO and others to predict increasing shortfalls as supplies struggle to keep up with demand. The deleterious environmental effects of industrial fishing are also highlighted by recent reports about practices such as deep sea trawling, which by itself releases as much carbon per year as the combined global aviation industry. Finally, numerous reports describe the increasing contamination of conventional seafood supplies, including heavy metals and pharmaceutical agents.

Cellular agriculture, or ex vivo food production, represents a new source of meat and seafood. Rather than growing an entire animal to subsequently harvest cuts of meat or seafood, cellular agriculture technologies enable the efficient creation of contaminant-free meat and seafood directly from animal cells. In this seminar, discoveries involving myogenic differentiation, bioprocess optimization, and tissue engineering will be explored in the unique context of Pacific salmon. Current challenges faced by the industry will also be addressed, including the transition from bench-scale to large-scale production.

CONTACT

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