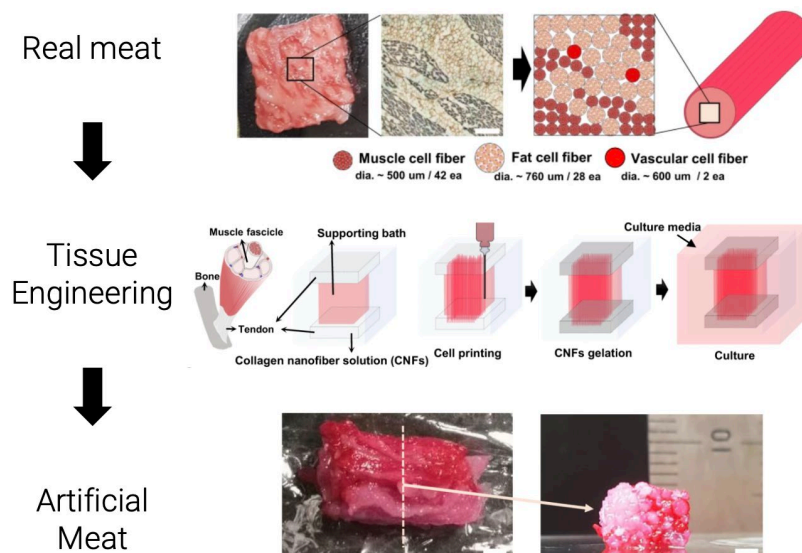


# BN4303 TISSUE ENGINEERING FOR DESIGNING FOOD

## WHAT IS THIS COURSE ABOUT?

This new course focuses on applying tissue engineering principles toward the design of meat alternatives. Over the past decade, meat alternatives have garnered increasing global attention due to the environmental, economic, and ethical issues stemming from traditional meat products. Creating properties desirable in meat substitutes (e.g., texture, composition, taste) requires the application of tissue engineering principles. This module will explore the role of bioengineering in the design, development, and optimisation of meat alternatives for widespread applicability in future foods development. This module will be taught by Asst/P Jennifer Young ([biejly@nus.edu.sg](mailto:biejly@nus.edu.sg)).



*Figures adapted from Kang, D-H., et al., Nat Comm, 2021*

## WHY YOU SHOULD CONSIDER THIS COURSE

This course will expose students to new innovations in the design of sustainable food products and will allow students to apply their bioengineering skills to a timely pursuit outside of the traditional biomedical engineering realm. Topics covered will include design principles of meat alternatives, cell and biomaterial sources for engineered meat, new methods in product development, and engineering challenges. Exciting guest lectures will complement the curriculum and design projects.



College of Design and Engineering

Department of Biomedical Engineering