BIO

About our guest Dr. Giles Yeo Professor of Molecular Neuroendocrinology University of Cambridge's MRC Metabolic Diseases Unit

## The genetics and neuroendocrinology of obesity Season 3, Episode 1

## **Episode notes**

Obesity is one of the most pressing health challenges of our time, with genetic and molecular factors playing a crucial role in how our bodies regulate weight. In this season opener, we explore the science behind obesity, focusing on how hormones, genetics, and brain circuits influence feeding behavior and body weight. Join us for a fascinating discussion about the interplay between molecular biology and real-world health outcomes.

Our guest, Dr. Giles Yeo, is a professor of molecular neuroendocrinology at the University of Cambridge and an expert in the genetics of obesity. With decades of research experience, Dr. Yeo dives into how hormones like GLP-1 interact with the brain and how genetic mutations can affect eating behaviors. He also explains the innovative molecular biology techniques his lab uses to map brain circuits and decode the genetic influences on body weight.

But this episode isn't all about the lab. Dr. Yeo shares his journey from studying the genetics of Japanese pufferfish to becoming a leading voice in obesity research and science communication. Whether he's decoding how Ozempic works or reflecting on the importance of good science communication, Dr. Yeo's passion for the field—and his knack for making complex topics relatable shines through.

## To access this and other episodes, visit **thermofisher.com/molbiopodcast**

## Dr. Yeo's recent publications

SPEAKING OF

MOL

- Tadross JA, Steuernagel L, Dowsett GKC, Kentistou KA, Lundh S, Porniece-Kumar M, Klemm P, Rainbow K, Hvid H, Kania K, Polex-Wolf J, Bjerre-Knudsen L, Pyke C, Perry JRB, Lam BYH, Brüning JC, Yeo GSH. Human HYPOMAP: <u>A comprehensive</u> <u>spatio-cellular map of the human hypothalamus</u>. Nature (In press)
- 2. Zhao Y, Chukanova M, Kentistou KA, Fairhurst-Hunter Z, Siegert AM, Jia R, Dowsett GKC, Gardner EJ, Lawler K, Day FR, Kaisinger LR, Tung YCL, Lam BYH, Chen HJC, Wang Q, Berumen-Campos J, Kuri-Morales P, Tapia-Conyer R, Alegre-Diaz J, Barroso I, Emberson J, Torres JM, Collins R, Saleheen D, Smith KR, Paul DS, Merkle F, Farooqi IS, Wareham NJ, Petrovski S, O'Rahilly S, Ong KK†, Yeo GSH†, Perry JRB†. Protein-truncating variants in BSN are associated with severe adult-onset obesity, type 2 diabetes and fatty liver disease. Nature Genetics 2024 Apr;56(4):579-584. (†co-senior author)
- 3. Loos RJF and Yeo GSH. <u>The genetics of obesity: from discovery to biology</u>. Nat Rev Genet. 2021 Published online Sep 23 2021

"... My day-to-day job is looking at genetics of body weight changes and looking at what those mutations may or may not be doing and then using single cell genomics and spatial transcriptomics in order to try and smap the feeding circuitry within the human brain."

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third party data or information associated with the product. **For Research Use Only. Not for use in diagnostic procedures.** It is the responsibility of the final formulator or end user to determine suitability and to qualify each Product Use. © 2025 Thermo Fisher Scientific Inc. All trademarks are the property of Thermo Fisher Scientific and its subsidiaries unless otherwise specified. **01\_2025**