Sinergy
Singapore Consortium for Synthetic Biology

SynBioSG
Society for Synthetic Biology (Singapore)

SynCTI
Synthetic Biology for Clinical & Technological Innovation

Seminar



Dr. Julius Fredens
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Reprogramming the genetic code and how to use it.

Abstract:

The dream of reprogramming the genetic code is as old as the computer, but it has been held back by the inability to handle the hardware – the entire genome. We recently overcame this technical challenge and created an E. coli with a synthetic genome using a genetic code of only 61 codons. This compressed genetic code confers virus resistance, enables genetic code expansion, and may facilitate bioengineering for health and biotechnology.

Bio:

Dr. Julius Fredens obtained his PhD from University of Southern Denmark and subsequently worked with Professor Jason Chin at the MRC Laboratory of Molecular Biology in Cambridge. Here, he studied genetic code compression and created the first organism with a fully synthetic genome utilising only 61 codons. Julius has recently joined SynCTI and NUS Medicine Synthetic Biology TRP as Assistant Professor, where his research focuses on genome engineering of bacteria and bacteriophage.

Thursday, 26th April 2022, 2pm SGT
Register at : https://qrs.ly/4wdhrwh