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Synthetic Biology – Resource Allocation in Natural and Unnatural Systems

Presented by: Shanghai Institute of Plant Physiology and Ecology, Chinese Academy of Sciences | Shanghai Jiao Tong University | East China University of Science and Technology | *Nature Communications*

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High yield production of industrially and medically important chemicals and biofuels is an increasingly important goal. There must be a balance between ensuring sufficient resources for the cells to thrive and maximizing yield of the desired chemical. One emerging approach is to dispense with the organism altogether and use purely synthetic systems but this faces challenges of its own.

This Nature Conference will address the issue of resource allocation from several perspectives from design to implementation, explore current challenges and examine the approaches that are being taken to overcome these challenges.

SESSION TOPICS

- Modeling and designing metabolic networks
- Rewiring metabolism for optimal yield
- Meeting the challenges of foreign product synthesis
- Cell-free product synthesis

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