Dicarboxylic acids transport, metabolism and roduction in aerobic Saccharomyces cerevisia

Shah, Mihir

DOI
10.4233/uuid:0f74bf4d-8919-4b5f-b1f1-75b731230468

Publication date
2016

Document Version
Final published version

Propositions

1. Inability of *Saccharomyces cerevisiae* to utilize dicarboxylic acids as sole carbon sources is not due to the absence of suitable transport systems (opposed to the findings of Barnett and Kornberg (1960); Ansanay *et al.* (1996))
2. Passive diffusion of fumaric acid into *S. cerevisiae* is a major drawback for its production process carried out at low pH (Chapter 3)
3. Scientific journals should have a repository of metabolically engineered strains to be accessed by academic institutions to reproduce the published results
4. Conforming to the views of Sydney Brenner; Researchers should focus more on interpreting data and designing experiments rather than generating data
5. Emigration correlates well with corruption
6. Economic development with sustainability is a dilemma for developing countries
7. Technology will make life monotonous
8. Evolution is preferred in the direction of increasing specificity of an enzyme towards a particular substrate rather than changing the substrate specificity of a highly specific enzyme (Chapter 5, in the context of DCT-02 transporter evolution towards exporting fumaric acid)
9. Exposing *S. cerevisiae* strains, engineered for the overproduction of C4 acids, to high CO_2 levels, leads to increased C4 acids production.(Chapter 4).
10. ABC transporters play an important role in the robustness of *S. cerevisiae*

Propositions accompanying the thesis "Dicarboxylic acids transport, metabolism and production in aerobic *Saccharomyces cerevisiae*" by Mihir Vidyut Shah