

## An FtsZ-centric approach to divide gene-expressing liposomes

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## Propositions

Accompanying the dissertation

AN FTSZ-CENTRIC APPROACH TO DIVIDE GENE-EXPRESSING LIPOSOMES

By

JONÁS NOGUERA LÓPEZ

1. FtsZ, in vivo, does not contribute significantly to the membrane constriction force exerted by the divisome.
2. The Min system has a great potential as an FtsZ-independent shape remodeler and protein locator in artificial cells.
3. The PURE system is a powerful tool for the bottom-up construction of artificial cells.
4. A minimal cell cannot be properly defined without considering its associated most-minimal medium.
5. Synthetic biology cannot live up to society expectations given our current knowledge of fundamental biological processes.
6. Viruses, in their own right, are alive.
7. Science, as is done in universities, must change to incorporate professional laboratory managers.
8. Mathematics and computer programming must be strengthened in biology curricula to prepare students for the biology of the future.
9. European universities must lead the way towards an increasingly closer integration of EU members.

These propositions are regarded as opposable and defensible, and have been approved as such by the promotor Christophe Danelon.