

Propositions

accompanying the dissertation

TOWARDS A BOTTOM-UP RECONSTITUTION OF THE NUCLEAR PORE COMPLEX

by

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1. It is possible to recapitulate the transport selectivity of the Nuclear Pore Complex using artificially designed amino-acid sequences (*Chapter 5 of this thesis*).
2. Models of nuclear transport should account for the presence of karyopherins as an essential component of the Nuclear Pore Complex (*Chapter 6 of this thesis*).
3. No specific inter-FG spacer sequences in FG Nups are needed for the formation of a selective barrier (*Chapter 5 of this thesis*).
4. Ultrawide DNA-origami pores represent an important step towards the bottom-up reconstitution of an artificial nucleus (*Chapter 7 of this thesis*).
5. Mastering surface passivation significantly improves the quality of life of a bio-physicist.
6. A doctoral training teaches one how to combine passion with pragmatism.
7. Subjectivity and implicit biases contribute strongly to inconsistencies in the peer review of scientific papers.
8. Being a good or a bad singer is not a predestined condition, but a choice.
9. The negative stigma around psychedelics is unjustified as these drugs cause way less harm than socially accepted drugs such as alcohol.
10. Scientific teamwork is like playing in a band, with everybody playing a different instrument, yet following the same rhythm.

These propositions are regarded as opposable and defensible, and have been approved as such by the promotor prof. dr. C. Dekker.