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Time-lapse microscopy study of noise in development

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Propositions

accompanying the dissertation
Time-lapse microscopy study of noise in development
by
Nicola Gritti

1. In the future, upon design of brighter fluorescence reporters, the dynamics of most processes during *C. elegans* development will become accessible thanks to our time-lapse microscopy technique (this thesis, Chapter 2).
2. Even though *C. elegans* development is largely invariant, it is not deterministic, but instead it is impacted by stochastic noise (this thesis, Chapters 3 and 4).
3. Multiple sources of noise drive the stochastic AC/VU cell fate decisions (this thesis, Chapter 5).
4. Good social interactions enhance the productivity (and happiness) of the group members.
5. Critical thinking of the data, rather than optimism, should drive the direction of future experiments.
6. All the inputs of a complex system must be identified and studied in order to understand its dynamic behavior.
7. The ideal experiment is capable of testing multiple hypothesis at the same time.
8. First (and second) year PhD students are often very inefficient workers.
9. Paranympths should have a chance to participate more actively during a defense ceremony.

These propositions are regarded as opposable and defendable, and have been approved as such by the promotor Prof. dr. ir. S.J. Tans and Dr. J. S. van Zon.