## **PROPOSITIONS**

belonging to the thesis

## KLF1 in Erythroid Differentiation: An essential transcription factor in health and disease

- 1. KLF1 acts together with BCL11A to ensure correct developmental timing of hemoglobin switching (this thesis).
- 2. KLF1 Nan mice display delayed erythroid maturation (this thesis).
- 3. The nuclear exportin XPO7 is a KLF1 target gene required for nuclear condensation and enucleation (this thesis and Hattangadi et al (2014) Blood 124:1931-1940).
- 4. Expression of BSDC1, a protein localized at the rim of the Golgi apparatus, increases sharply during erythroid differentiation (*this thesis*).
- 5. A reproducible and reliable strategy for purification of KLF1 complexes from erythroid cells is still elusive (this thesis).
- 6. Although the human  $\beta$ -globin gene was one of the first genes cloned,  $\beta$ -thalassemia is still a pressing medical problem with only limited therapeutic options available to the patients (Rivella, S. and Rachmilewitz, E. (2009) Expert Rev Hematol. 2: 685).
- 7. Anti-vaccine parents live in a world in which their child faces only very slight risks of contracting infectious disease, due to the decisions of all the other socially responsible parents who do vaccinate their children (Robert Stoker, Associate Professor of Political Science and Public Policy at George Washington University).
- 8. There is a lot you can do without animals. [...] But real diseases are diseases of the whole body, and can only be studied in the whole body (Roger Morris, Professor of Molecular Neurobiology at King's College London).
- 9. Antimicrobial resistance (AMR) is an increasingly serious threat to global public health. A post-antibiotic era, in which common infections and minor injuries can kill, is a very real possibility for the 21<sup>st</sup> century (WHO, Antimicrobial resistance: global report on surveillance 2014, April 2014, ISBN: 9789241564748).
- 10. Fatti non foste a viver come bruti, ma per seguir virtute e canoscenza You were not made to live as brutes, but to follow virtue and knowledge- (Dante Alighieri, Divina Commedia, Inferno canto XXVI, 119-120).
- 11. Puoi andare ovunque nel mondo, ma senza radici, affondi You can go everywhere in the world, but without roots, you will sink (Eleonora Abbagnato, Étoile at the Paris Opera Ballet).

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