Propositions accompanying the thesis

MEASURING SENESCENCE IN HUMAN POPULATIONS

by Jacob Jan Egbert Koopman

- 1. Biological interpretations of mathematical models always need to be tested empirically (this thesis).
- 2. A population's senescence rate should not be measured from the relative, but rather from the absolute increase in its mortality rate over age (this thesis).
- 3. Separating intrinsic and extrinsic mortality is circular reasoning (this thesis).
- 4. Diseases attributed to senescence are rather attributable to lifestyle (this thesis).
- 5. Populations can senesce at similar rates, but meanwhile in different ways (this thesis).
- 6. The study, prevention, and treatment of senescence is hampered by ignorance and disagreement about its nature. Senescence can consist of non-programmed hypofunction as well as quasi-programmed hyperfunction (Blagosklonny, *Cell Cycle* 2006; 5: 2087-2102).
- 7. Senescence and disease do not fundamentally differ (Izaks & Westendorp, BMC Geriatr. 2003; 3:7; Holliday, J. Gerontol. Ser. A Biol. Sci. Med. Sci. 2004; 59: 543-546; Caplan, EMBO Rep. 2005; 6: 872-875; Masoro in Masoro & Austad, Handbook of the Biology of Aging 2006: 43-62).
- 8. Attempts of researchers and clinicians to avoid senescence do not serve the proper purpose of medicine (Callahan, *Hastings Cent. Rep.* 1994; 24: 39-41; Meilaender, *Should we live forever?* 2013).
- 9. They that are whole have no need of the physician, but they that are sick (Mark 2:17).
- 10. The publication process of 'peer review' slows rather than encourages the progress of science (Bohannon, *Science* 2013; 342: 60-65; Hopewell et al., *BMJ* 2014; 349: G4145).
- 11. When researchers from western countries set out for studies in developing populations, both parties have responsibilities to organise, facilitate, and execute such studies in a collaboration on equivalent terms (Ebrahim et al., *PLoS Med.* 2013; 10: E1001377; Chu et al., *PLoS Med.* 2014; 11: E1001612).
- 12. The only effective, efficient, and enduring type of developmental aid is financial support of professional training of socioeconomically deprived youth (Professor Gbas Foundation).