

Propositions accompanying the thesis:

The Retina as a Biomarker for Vascular and Neurodegenerative Brain Diseases

1. **Retinal imaging can serve as a source of biomarkers to study small vessel disease and atrophy of the brain.** *(this thesis)*
2. **Retinal vascular caliber is a potential biomarker for the vascular status of the cerebral white matter.** *(this thesis)*
3. **Both retinal and cerebral atrophy are reflective of the same disease process, but whether one causes the other should be investigated longitudinally.** *(this thesis)*
4. **Wider venules in the retina may reflect an insufficient oxygen supply to the brain.** *(this thesis)*
5. **Causal mediation analysis can provide further insight into the pathophysiology of a disease.** *(this thesis)*
6. **A statistical interaction is a property of the model that describes the data, not a property of the data themselves.**
7. **In arguing for the ontological primacy of causation relative to manipulation, the slogan ‘no causation without manipulation’ indicates a lack of imagination.**
8. **Geography, culture, or ignorance of leaders cannot truly explain world inequality. Extractive political and economic institutions can.**
9. **With advances in artificial intelligence, creative destruction of white-collar professions will be inevitable.**
10. **‘Under normal conditions, the research scientist is not an innovator but a solver of puzzles, and the puzzles upon which he concentrates are just those which he believes can be both stated and solved within the existing scientific tradition’.** *(T.S. Kuhn)*
11. **‘The scientific observer of nature is a kind of mystic seeker in the act of prayer’.** *(M. Iqbal)*