Network pharmacology for mechanistically redefined comorbidities

Propositions belonging to the thesis

'**Network pharmacology for mechanistically redefined comorbidities**'

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1. Many diseases are defined rather by symptoms than by causal mechanisms.
2. A drug can only be effective and precise if the molecular disease mechanism is known but most drugs treat symptoms, are ineffective and do not cure; therefore, diseases should be redefined based on their molecular, causal mechanism.
3. According to network pharmacology most diseases are due to dysregulated signalling modules rather than single targets; they should be treated by a synergistic combination of drugs against multiple targets in the same module.
4. Drug repurposing is an excellent strategy to speed up clinical translation of basic biomedical research.
5. NADPH oxidase 5-induced uncoupling of nitric oxide synthase is a theragnostic target of age-related hypertension and its associated risks, aortic aneurysm and post-stroke haemorrhagic transformation.
6. NO self-limits its ability to induce cGMP formation via a chemical feedback that haem depletes and inactivates soluble guanylate cyclase.
7. Interdisciplinary collaboration between biomedical researchers, clinicians and data scientists in network medicine saves and improves quality of lives whilst at the same time decreases research and health care costs.
8. "To do successful research, you do not need to know everything, you just need to know one thing that is not known" (Arthur L. Schawlow).
9. "Prevention is better than cure" (Desiderius Erasmus).
10. "The cure of ignorance is inquiry" (Prophet Muhammed 'pbuh')