

# Chasing the perfect storm

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## Propositions

### Chasing the perfect storm:

### Vascular calcification in chronic reno-cardiac syndrome

by Nikolas Rapp

- I. A better understanding of the effects of uremic retention molecules in chronic kidney disease is key to develop strategies to reduce vascular calcification. (*this thesis*)
- II. The entirety of serum is a better predictor for vascular calcification propensity than single biomarker measurements. (*this thesis*)
- III. Human iPSC derived vascular smooth muscle cells are superior to primary vascular smooth muscle cells for disease screening and drug testing. (*this thesis*)
- IV. With a more personalised approach, including optimised dosage, timing, and co-treatment, vitamin K supplementation is an attractive treatment for prevention of vascular calcification, both in the general population as well as in CKD patients. (*this thesis*)
- V. Food is the single strongest lever to optimise human health and environmental sustainability, nutrition should be in the centre of attention for improving planetary health. (*Avesani et al, Journal of Renal Nutrition, 2022*)
- VI. The current physicochemical classification of uremic toxins does not adequately reflect the biologic consequences of the toxins and is not able to identify which toxins possess the most clinical relevance. (*Rosner et al, CJASN, 2021*)
- VII. Everything in food is science. The only subjective part is when you eat it. (*Alton Brown*)
- VIII. Remember kids, the only difference between screwing around and science, is writing it down. (*Adam Savage, MythBusters*)
- IX. Es ist nicht deine Schuld, dass die Welt ist wie sie ist. Es wäre nur deine Schuld wenn sie so bleibt. // It's not your fault that the world is how it is. It would only be your fault if it stays that way. („Deine Schuld“ *Die Ärzte*)
- X. Your opinion, although interesting, is irrelevant. (*rule #7*)