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Keyhole limpet hemocyanin challenge model for studying adaptive immune system responses in early-phase clinical drug development

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KEYHOLE LIMPET HEMOCYANIN CHALLENGE MODEL FOR STUDYING ADAPTIVE IMMUNE SYSTEM RESPONSES IN EARLY-PHASE CLINICAL DRUG DEVELOPMENT

- 1 The KLH challenge model is a valuable methodological instrument and can aid in understanding the pharmacology of novel compounds in early-phase clinical drug development. (*this thesis*)
- 2 KLH is a suitable challenge antigen to study immunomodulation. (*this thesis*)
- 3 Objective quantification of the dermal KLH response using imaging techniques is preferred over the physician-based scoring of induration and/or erythema. (*this thesis*)
- 4 Repeated KLH immunizations result in a stronger systemic immune response than a single KLH immunization with an equivalent total dose. (*this thesis*)
- 5 The immunological pathways underlying systemic and peripheral KLH responses remain to be elucidated at the molecular and cellular level.
- 6 The use of proof-of-mechanism models in early phases of clinical drug development reduces drug development costs and increases the success rate. (*Wu SS et al., DOI: 10.1016/j.drudis.2020.10.019*)
- 7 Early-phase clinical trials with immunomodulatory investigational medicinal products benefit from taking the diversity and variability of the human immune system into account.
- 8 Gut microbiome variations contribute to immune diversity between individuals and are associated with several inflammatory and immunological diseases. (*Liston A et al., DOI: 10.1038/s41590-021-01058-1*)
- 9 There are no incurable diseases – only the lack of will. There are no worthless biomarkers – only the lack of knowledge. – *adapted from Ibn Sina (980-1037)*
- 10 The amount of red colored text within a manuscript after a round of review correlates with the level of stress and fatigue a PhD student endures.
- 11 Some propositions do not have any place in a thesis, or anywhere else for that matter, as they can be considered harassment.