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# Steps toward pre-clinical iPSC-derived kindey organoids

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Stellingen behorend bij het proefschrift

# Steps toward pre-clinical iPSC-derived Kidney Organoids

1. Cryopreservation and quality assessment are important steps to generate kidney organoids ready for clinical application (this thesis)
2. In depth morphological observation is an important tool to understand the state of the kidney organoid (this thesis)
3. Off-target differentiation poses a significant challenge (this thesis)
4. Nephron sheets/ kidney organoids could potentially fill a gap that alleviates or delays the need for renal replacement therapy (this thesis)

5. 'The prospect of using organoids to model development or disease relies on the accuracy of the model and its reproducibility within and between lines.' Phipson B., Er P.X., Combes A.N. et al. Nat Methods 2019;16
6. 'With the optimization of vascularization, the growth of organoids can be significantly promoted' Konoe R., Morizane R. Biology (Basel) 2023;12
7. 'Immune surveillance of the host remains a barrier for further clinical applications' Gaykema L.H., van Nieuwland R.Y., Dekkers M.C. et al. Front Immunol 2022;13
8. 'Despite visible progress in kidney organoid study, however, several critical milestones remain to be achieved to create a fully functional in vitro kidney model.' Trush O., Takasato M. Curr Opin Genet Dev 2022;75

9. In science, there are no endpoints. Every verified result is merely the starting point of new questions.
10. 'There are many good choices' (Adjusted, Lejla Mahic). *There are many approaches to good science. Instead of focusing on the perfect choice, realize that there are many good roads to take.*
11. 'Waarom moeilijk doen als het samen kan' (Loesje). *By collaborating together you can go further than trying to do everything yourself.*
12. A crucial part of adequate science lies in knowing the controls that are necessary and the (limits of) ones that are available.