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Leiden  
The Netherlands

## Pathways to proteinuria

Khalil, R.

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# Pathways to Proteinuria

1. The *ctns* *-/-* zebrafish embryo model is a suitable model for the study of pathophysiological aspects of nephropathic cystinosis and *in vivo* screening of novel therapeutic targets (this thesis)
2. Heparan sulfate glycosaminoglycan deficiency does not always lead to proteinuria (this thesis)
3. Podocyte cytoskeletal regulation, including dynamin oligomerization, is a promising therapeutic target in human proteinuric kidney disease (this thesis)
4. Transmembrane protein 14A is essential for glomerular filtration barrier function (this thesis)
5. The main role of heparan sulfate glycosaminoglycans in the glomerular filtration barrier is not only effectuated through charge selective properties.
6. The functionality of both the glomerular filtration barrier and proximal tubular reabsorption seems to depend on whether proteinuric circumstances are present (Adapted from Comper *et al.* Front. Physiol., 2022)
7. All that is noticeable is remarkable, but not all that is remarkable is noticeable (yet). Thus, new methods and techniques are required to further explore the pathways leading to proteinuria.
8. The zebrafish embryo experimental model will remain a relevant tool in advancing renal research in the coming years (Adapted from Drummond *et al.* J Dev Bio 2023) and will aid in developing new experimental models.
9. 'It is no exaggeration to say that the composition of the body fluids is determined not by what the mouth takes in but by what the kidneys keep.' (H.W. Smith, From fish to philosopher, 1953) Fortunately, we can sometimes adjust what the kidneys keep by changing what the mouth takes.
10. Prevention is better than cure. Access to healthcare, sufficient and healthy nutrition, adequate physical activity, cessation of smoking, and addressing poverty should be part of every physician's mission.
11. No diamonds without pressure and no shine without friction
12. 'Cela est bien dit, mais il faut cultiver notre jardin' (Voltaire, Candide, ou l'Optimisme, 1759). Let's get to work and do the best we can.