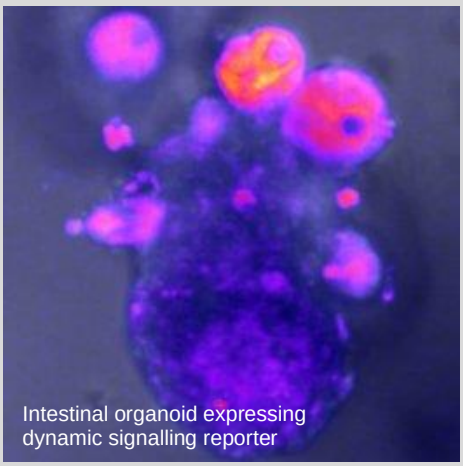
Hubrecht Institute

Developmental Biology and Stem Cell Research

Postdoc position

to study the function of signalling dynamics in adult tissues



Intestinal organoid expressing dynamic signalling reporter

The function of signalling pathways in the control of tissue homeostasis has been studied for decades. More recently, it has been shown that biological information can be encoded in the temporal change of a signal, i.e. signalling dynamics. Encoding in dynamics ensures that information transmission is specific and accurate. In our lab we have all the tools set up to address how signalling dynamics control proliferation and differentiation during homeostasis of adult tissue.

Using small intestine as model system we dissect how signalling dynamics control tissue homeostasis. We use a quantitative approach combining dynamic signalling reporters, light-sheet imaging, intravital imaging and microfluidics to study the function of signalling dynamics in organoid cultures and other *in vitro* models of tissue homeostasis. In a translational approach we will also transfer our findings to address how these dynamics are changed during tumour formation.

If you hold a PhD degree in cell biology, developmental biology, biochemistry, physics or equivalent and are keen to work on this interdisciplinary research project combining high resolution imaging with organoids, please contact me (k.sonnen@hubrecht.eu). You should ideally have experience in imaging three-dimensional tissues, light-sheet microscopy, image analysis and organoid culture.

Location: Hubrecht Institute, Utrecht Science Park, De Uithof.

Information: For additional information please contact Ina Sonnen, k.sonnen@hubrecht.eu or visit our website https://www.sonnenlab.org/.

Interested? Please send your application including curriculum vitae and contact details of three potential references to k.sonnen@hubrecht.eu.

The Hubrecht Institute is a research institute of the Royal Netherlands Academy of Arts and Sciences. Presently there are 22 research groups with a total of about 350 employees and guest researchers. In addition to a highly interactive and international scientific environment, excellent research facilities are available for imaging and functional genomics. Moreover, several model organisms are present, including C. elegans, zebrafish and rodents. The institute is situated at the Utrecht Science Park. The Hubrecht Institute is affiliated with the University Medical Center Utrecht and has close connections with Utrecht University, e.g. in the graduate school Cancer, Stem cells & Developmental biology.