**BDRC Seminar Series 17th May 2021**

**“Analysis and perturbation of cell behaviours controlling gastrulation in the chick embryo”**

In this seminar I will show how we have been able to quantitatively analyse the detailed cell behaviours that underly the process of gastrulation in the chick embryo, using a combination of lightsheet microscopy based live imaging, large scale computational data analysis and modelling. I will describe ongoing experimental work to understand the signals that coordinate critical cell behaviours and show how they can be manipulated to achieve different modes of gastrulation.

**Cornelis Jan Weijer (short bio)**

He was educated in the Netherlands where obtained a Bsc in Biological Chemistry, followed by a Msc (cum laude) in Theoretical and Developmental Biology from the University of Utrecht. He obtained a PhD (Cum laude) for work at Hubrecht Laboratory from the University of Utrecht. After a short post-doctoral position, he became a lecturer and senior lecturer in Zoology at the Ludwig Maximillian University, Munich, Germany. In 1996 he took up a position as Reader in the University of Dundee where for the last 21 years has been a professor in Developmental Physiology in the School of Life Sciences. He won a Wolfson Research Merit Award in 2002 and was elected Fellow of the Royal Society of Edinburgh in 2004. He has served as Head of Division of Cell and Developmental Biology and as Head of Systems Biology. His research interest are directed towards understanding the coordination of cell behaviours through cell-cell signalling to achieve multicellular development and morphogenesis. His work has concentrated on understanding Dictyostelium development and gastrulation in the chick embryo using a highly multidisciplinary combination of experimental and theoretical approaches.