

# Accepted Manuscript

Focus on resolution

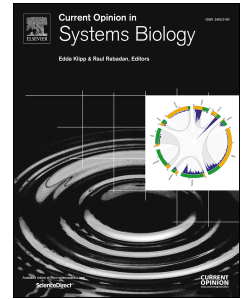
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## Focus on resolution

Stefan Hohmann and Marija Cvijovic

### Stefan Hohmann

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**Stefan Hohmann** is professor of genetics and head of department at Chalmers since 2015. He was trained in microbiology and genetics at the TU Darmstadt, where he obtained his PhD (1987), and the KU Leuven before starting his own laboratory at the University of Gothenburg in 1996. He studies molecular control mechanisms of signal transduction and stress adaptation in yeast integrating experimentation, modelling and synthetic biology approaches.

### Marija Cvijovic

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**Marija Cvijovic** is associate professor in systems biology at the University of Gothenburg since 2017. She is trained as mathematician with a background in molecular biology and genetics. Marija obtained her PhD in systems biology at the Max Planck Institute for Molecular Genetics (2009) before starting her own lab at the University of Gothenburg in 2011. She studies the complexity of cellular ageing using experimental and computational methods.

The term Systems Biology describing a scientific approach to explain mechanisms of biological complexity has now been around for about 20 years (1). By that time, systems biology was described as "... integrating these data and ultimately, formulating mathematical models that describe the structure of the system and its response to individual perturbations" (1). "Data" frequently refers to those derived from different omics approaches covering the entire repertoire of genes, RNAs, proteins or metabolites (including in many instances their interaction) of an organism. From the articles published in this issue of Current Opinion in Systems Biology it appears that the field is moving towards higher resolution (single cells and single molecules) and higher precision (for instance in perturbing a system). The challenge of handling big data is more up to date than ever, since more and more data are generated at single cell or molecule resolution. Individuality also seems to be a returning theme when looking ahead in systems biology, in terms of cell-to-cell

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