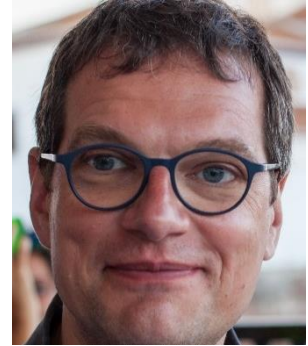


New biology and therapeutics from RNA shape and modification

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Abstract

The genome is transcribed into RNA. Some RNA encodes protein. More RNA acts directly in the control of gene expression. My group is studying such RNA control mechanisms. To do this we are using a variety of tools from chemical biology to cell biology and from computation to animal genetics. Recent work has focused on (i) *in vivo* RNA structure determination, (ii) RNA modification of tRNA and mRNA as a new layer of control, (iii) RNA and transposon control and (iv) RNA-mediated inheritance. While our work is of a fundamental nature it impinges on human disease such as viral infection, metabolic disease and cancer. I will present unpublished work from the group.

Biography

Eric Miska is Head of Department and Senior Group Leader at the Department of Biochemistry, a Herschel Smith Professor of Molecular Genetics at the Genetics Department, and affiliated Senior Group Leader at the Gurdon Institute, at the University of Cambridge, UK. He is an associated faculty member of The Wellcome Trust Sanger Institute, and coordinator of the Cambridge RNA Club. He is a molecular geneticist most known for his pioneering work furthering our understanding of the biology of non-coding RNA.