



Rupert Riedl Lecture in Science and Society 2013

The Music of Life and the Billion-year Dance of the Genes

Denis Noble

Universität Oxford, UK

Montag, 18. März 2013, 18.00 Uhr
Senatsaal, Universität Wien, Hauptgebäude
1010 Wien, Universitätsring 1



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Faculty of Life Sciences

Rupert Riedl Lecture in Science and Society 2013

Program

- 6.00 pm Welcome
Horst Seidler
Dean of the Faculty of Life Sciences
University of Vienna
- 6.10 pm Introduction
Gerd Müller
Head of the Department of Theoretical
Biology, University of Vienna
- 6.20 pm Rupert Riedl Lecture
Denis Noble
Emeritus Professor, Department of
Physiology, Anatomy and Genetics,
University of Oxford, UK

Putting together – rather than taking apart

“It is about integration rather than reduction.” Denis Noble reinterprets many facts of biology in a radical way. Instead of subscribing to the dogma of the ‘selfish’ gene, he views genes as cooperating in the systems of the body and terms the genome an “organ of the cell”. Transmission of information between genetic and organismal levels is not one-way. Instead, our DNA is the database from which the organism extracts the information required. Genes therefore do not have much of a chance to be ‘selfish,’ they are more like ‘prisoners’ of the organism.

Systems biology exploits integrative approaches for analyzing, evaluating, and recombining complex data from various experimental sources to develop predictive computer models of individual organs. However, these novel insights transcend the borders of biology by far. Arguing that genes did not create “us, body and mind,” but co-evolved with the systems that interpret them challenges the dominant view of life, and provides a new perspective on cultural dynamics.

Denis Noble

Denis Noble is an internationally renowned physiologist and systems biologist. He discovered electrical mechanisms in heart cells and generated the first mathematical model of the rhythm of the heart. This work has grown into an international project, the Physiome Project, that aims at modeling all organs of the body. Noble is President of the International Union of Physiological Sciences and Emeritus Professor at Oxford University. *The Music of Life*, his popular science book on the principles of Systems Biology, has been translated into many languages.

Venue

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