



University of Stuttgart

Stuttgart Research Center Systems Biology



Keynote Lecture

Simplifying inflammation and
fibrosis

Prof. Uri Alon
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Science, Israel**



SRCSB Day 2025

03.06.2025

16:00 CET

Universitätsstr. 34

Room U34.150

70569 Stuttgart

Ernst Dieter Gilles Award

Abstract:

Fibrosis – or excess scarring – is pathology that cuts across medicine. Preventing and reversing fibrosis is an unmet medical need. In this whiteboard talk, we will present experiments guided by a mathematical model to understand principles of fibrosis. We will see how this helps to identify new targets, which led to two preclinical treatments that reverse fibrosis in mice heart and liver.

CV:

Education:

1997-1999 Post-Doctoral Fellow with S. Leibler

Dept. Molecular Biology, Princeton University

1992-1996 Ph.D., Physics, Weizmann Institute of Science

1989 M.Sc., Physics, Hebrew University of Jerusalem

1986-1989 B.Sc., Physics and Mathematics, Hebrew University of Jerusalem

Employment:

2000-2004 Senior Scientist, Dept. Molecular Cell Biology (joint membership at Dept. Physics of Complex Systems), Weizmann Institute of Science

2004 - Associate Professor, Dept. Molecular Cell Biology (joint membership at Dept. Physics of Complex Systems), Weizmann Institute of Science

2008-2010 Visiting Professor, Dept. Systems Biology, Harvard Medical School

2008- Full Professor, Dept. Molecular Cell Biology, Weizmann Institute of Science

Teaching experience:

2000-2008 Developed and taught 'Systems Biology' graduate course, together with N. Barkai, for biology, physics and bioninformatics tracks, Weizmann Institute of Science

Research Interests:

Systems Biology. Experimental and theoretical study of protein networks. Design principles of genetic circuits. Physics of biological systems.