

Viruses

More Friends Than Foes

Influenza, AIDS, and Ebola: Viruses are normally defined as pathogens. Most viruses are, however, not enemies or killers. Well-known virologist and cancer researcher Karin Moelling describes surprising insights about a completely new and unexpected world of viruses. Viruses are ubiquitous, in the oceans, our environment, in animals, plants, bacteria, in our body, even in our genomes. They influence our weather, can contribute to control obesity, and can surprisingly be applied against threatening multi-resistant bacteria. The success story of the viruses started more than 3.5 billion years ago in the dawn of life when even cells did not exist. They are the superpower of life. There are more viruses on earth than stars in the sky. Viruses are everywhere. Some of them are incredibly ancient. Many viruses are hundredfold smaller than bacteria, but others are tenfold bigger and they were discovered only recently — the giant viruses, even deep within the permafrost where they were reactivated after 30,000 years.

The author talks about a completely new world of viruses, which are based on the most recent, in part her own research results. Could viruses have been our oldest ancestors? Have viruses even "invented" social behavior, do they lead to geniuses such as Mozart or Einstein — or alternatively to cancer? They can help to cure cancer. This book is written for a general audience and not just for the experts. Its aim is to stimulate thinking, and perhaps to attract more young scientists to enter this field of research.

Karin Moelling is a researcher on viruses and cancer. Trained as a nuclear physicist, she switched to molecular biology at the University of California, Berkeley in 1969, sponsored by a German scholarship. She worked on retroviruses, viral oncogenes and cancer at the Max Planck Institute (MPI) for Virus Research, Tübingen, and MPI for Molecular Genetics, Berlin. She was appointed Director and Professor at the Institute of Medical Virology, University of Zürich in 1993, performing research, teaching and diagnostics for the University Hospital. She was also appointed Honorary Professor at the Charité — Universitätsmedizin Berlin. She has published more than 250 scientific papers and honored with several distinguished awards, including the SwissAward in 2007 for her discovery of a viral enzyme and its application to drive HIV into suicide.

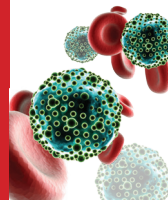


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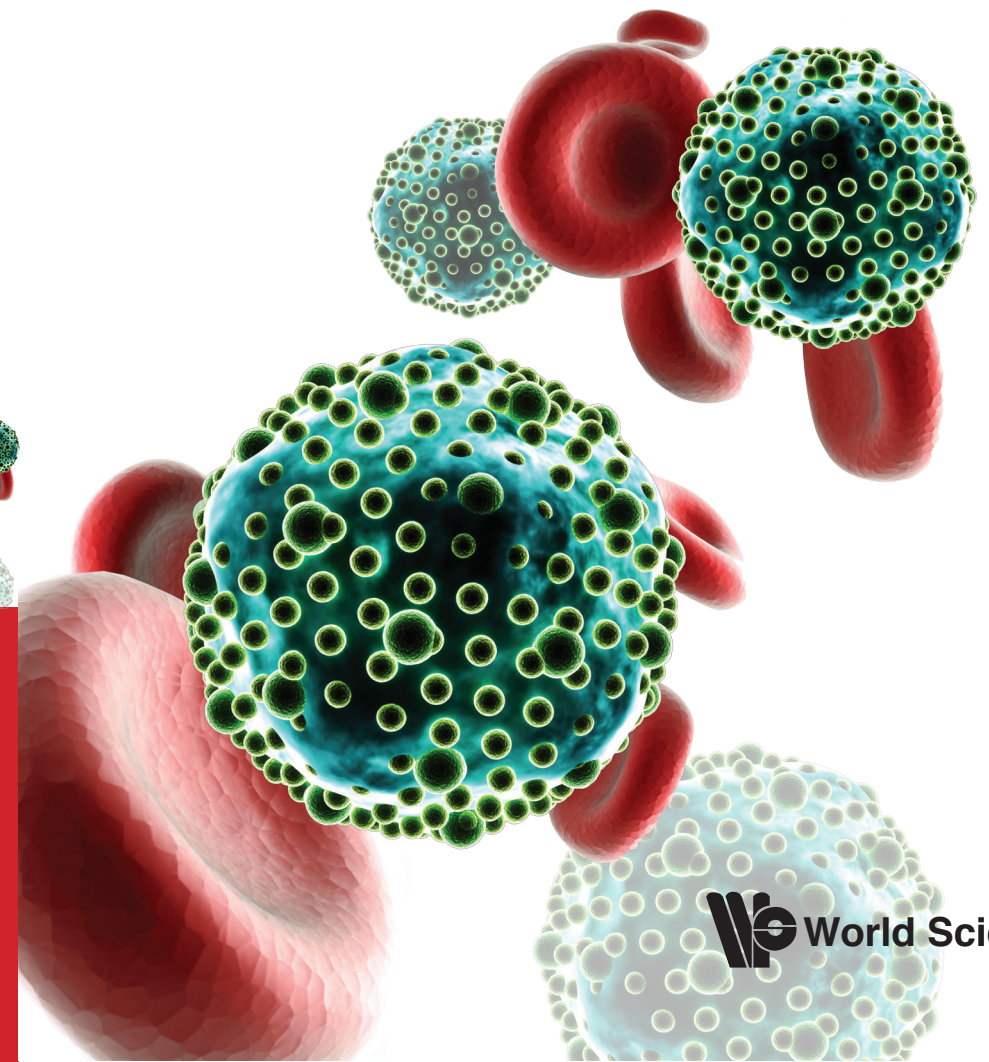
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