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### The structure of Zika virus

Zika virus belongs to the flavivirus family that includes dengue virus, West Nile virus, yellow fever virus and other human pathogens. The structure of dengue virus was the first flavivirus to be determined. It was accomplished by obtaining a low resolution image of the whole virus by cryoEM and determining the structure of the major capsid protein of the homologous tick-borne encephalitis virus crystallographically. When Zika started to be recognized as a major threat to humanity, cryoEM had advanced to allow us to determine the structure of Zika virus to near-atomic resolution using only cryoEM. The most important difference between dengue and Zika virus was found to be at a glycosylation site which is suspected to be involved in the recognition of molecules on the surface of potential host cells.

### Biography

Michael Rossmann graduated from the University of London (B.Sc. General in Physics and Mathematics, 1950; B.Sc. Special 1951 in Physics; M.Sc., 1953) and the University of Glasgow (Ph.D., 1956). He was a postdoctoral fellow with Prof. William Lipscomb at the University of Minnesota (1956-1958) and a Research Associate with Dr. Max Perutz at the MRC Laboratory of Molecular Biology, Cambridge, England (1958-1964). Currently he is the Hanley Professor of Biological Sciences at Purdue University, where he has worked for the last 52 years. His laboratory utilizes X-ray crystallography and electron microscopy to study the structures of animal and bacterial viruses.

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