



**Dr. Eckard Wimmer**

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"An Impact of *de novo* Synthesizing Poliovirus: Recoding  
Arboviruses for Vaccine Development"

The chemical test-tube synthesis of poliovirus, published 2002, caused an uproar world-wide. It showed that viruses not only exist as infectious particles in nature but viruses can be recreated in laboratories with the computer as parent. However, the cell-free synthesis also allows to alter the viral genome to an extent that has never been possible before.

I will present examples of novel genetic studies of RNA viruses. Selecting *codon pair deoptimization*, a little known genetic phenomenon functioning in multiple (all?) taxa, the possible *in silico* generation of dengue viruses as new vaccine candidates will be discussed.

Dr. Wimmer has been awarded various honors and awards throughout his career. Just a few are: 2014 Loeffler-Frosch Medal by the Society of Virology of Germany, Austria and Switzerland; 2012 Member, National Academy of Sciences; 2012 Robert-Koch Medal in Gold by the Robert-Koch Stiftung, Berlin, Germany; The 2010 Beijerinck Price in Virology, by The Royal Netherlands Academy of Arts and Sciences; Fellow of the American Association for the Advancement of Science (2008); Lifetime Achievement Award, The Research Foundation of the State University of New York, April 2008; Distinguished Professor of the State University of New York at Stony Brook (2002); Highly Cited Researcher 1980 –present (ISIHighlyCited.com); Fellow, Deutsche Akademie der Naturforscher Leopoldina von 1652 (1998); Fellow, American Academy for Microbiology (1994); Alexander von Humboldt-Forschungspreis (1996)

**PI4D Distinguished Speaker Seminar**

**Wednesday, April 4, 2018**  
**2:30 pm- 3:30 pm in**  
**MRGN 121**