

The van Niel International Prize for Studies in Bacterial Systematics, awarded in 2020 to Tanja Woyke.

Iain C. Sutcliffe and William B Whitman, on behalf of the ICSP

Correspondence to:

Iain C. Sutcliffe, Northumbria University, Newcastle upon Tyne NE1 8ST, United Kingdom

Email: iain.sutcliffe@northumbria.ac.uk

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ABSTRACT

The Senate of The University of Queensland, on the recommendation of the Executive Board of the International Committee on Systematics of Prokaryotes, is pleased to present the van Niel International Prize for Studies in Bacterial Systematics for the triennium 2017–2020 to Dr. Tanja Woyke in recognition of her contributions made to the field of bacterial systematics. The award, established in 1986 by Professor V. B. D. Skerman of The University of Queensland, honours the contribution of scholarship in the field of microbiology by Professor Cornelis Bernardus van Niel.

Citation

Dr. Tanja Woyke studied at Eberhard Karls University of Tübingen, Germany, taking a Diploma and then Masters in Biology before continuing her research for a Ph.D. in Microbiology, entitled “*In Vitro* Antifungal Activity and Mechanism of Action of Auristatin PHE” (awarded summa cum laude, 2003). She began her postdoctoral research at the U.S. Department of Energy’s Joint Genome Institute (JGI, California) in 2004 using metagenomics to decipher the functional ecology of the symbiotic microbial community associated with the gutless marine oligochaete worm *Olavius algarvensis* [1]. In 2007 she progressed to a Research Scientist position at JGI and began her focus on single-cell genomics, first reporting genomes of two marine flavobacteria in 2009 [2] and then continuing to develop and apply these methodologies throughout her career, including defining minimal standards for single amplified genomes and metagenome assembled genomes [3].

Dr. Woyke has been a pioneer in the genomics of uncultivated prokaryotes, demonstrating the power of metagenomics and single-cell genomics to uncover the hidden diversity of prokaryotes and viruses. She popularized the term ‘microbial dark matter’ in her landmark 2013 Nature paper [4], which revealed the enormous metabolic diversity extant in uncultivated bacteria and archaea. Her work further demonstrated the power of these methods to reveal unforeseen microbial processes in nature.

Since 2009 Dr. Woyke has led the JGI Microbial Genomics Program and has made outstanding contributions to understanding the diversity, ecology and systematics of uncultivated taxa. As the Program Lead, Dr. Woyke has enabled the success of a large number of projects from the JGI Community Science Program, greatly enhancing the understanding of extremophiles, the rare biosphere, uncultivated marine bacteria, and complex symbioses in methanogenic bioreactors, marine invertebrates and the rumen. This

work has recently been extended by significant studies into the diversity and distribution of giant viruses [5,6].

The above citation accompanies the prize. The International Committee on Systematics of Prokaryotes congratulates Dr. Woyke on being awarded the prize in recognition of her contribution to prokaryote systematics. A history of the van Niel Prize listing previous recipients is given in Appendix 12 of the International Code of Nomenclature of Prokaryotes [6].

Citation prepared by The University of Queensland and submitted on their behalf and that of the International Committee on Systematics of Prokaryotes by I.C. Sutcliffe and W.B. Whitman.

Conflict of Interest: IS and WW have no known conflict of interest to declare.

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