



KNVM Virology News

Dear fellow virologist,

After many years of serving in the KNAW Beijerinck Committee, Ron Fouchier, Frank van Kuppeveld, and Eric Snijder have stepped down. Their places have been filled by John van der Oost (chair), Jolanda Smit, and Rogier Sanders. Together with remaining member Debbie van Baarle, they will advise on the organisation of the DAVS and the award of the Beijerinck prize/premium. For this newsletter, we have interviewed two of the new members.

We have a vacancy for 1-2 new board members for the KNVM Virology section. More information can be found [here](#). The deadline for application is September 1st, 2020.

The board of the Virology division of the KNVM (Emmanuel Wiertz, Jolanda Smit, Jeroen Kortekaas, Bart Haagmans, Katja Wolthers, and Puck van Kasteren)

Virology events

September 10, 2020
Vaccine symposium
UMC Utrecht/Online

October 28, 2020
Symposium COVID-19
vaccines
RadboudUMC/Online

March 30/31, 2021
KNVM/NVMM Spring
Meeting
Papendal

June 6-10, 2021
[Nidomeeting](#)
Egmond aan Zee



Virology Double-Interview

John van der Oost
Professor
Bacterial Genetics
Laboratory of Microbiology
Wageningen University

Jolanda Smit
Professor
Experimental Virology
Dept. of Medical Microbiology
UMCG, Groningen University



What is your main research focus?

Molecular Microbiology, focus on anti-viral defence systems of bacteria (CRISPR-Cas, Argonaute): unravel molecular mechanism, and try to develop applications in biotechnology and biomedicine field.

What is your favourite virus?

Bacteriophage lambda, that was the first ever target of a synthetic CRISPR-Cas system (Science 2008).

What is your advice to early career virologists?

Be curious, don't ignore experiments of which the outcome does not match your expectations. In career planning/topic choice: follow your heart.

How do you engage with the lay public?

I try to reach out to laymen as much as possible: public lectures, tv/radio, book (Mighty Microbes).

Why is your research important?

We have unraveled fascinating new mechanisms, and developed relevant applications (from engineering in biotech to human gene therapy).

Of which accomplishment are you most proud?

The basic studies on structure and function of CRISPR-Cas, and the developed applications.

What is your main research focus?

In my research I focus on elucidating the virus:host (cell) interactions of mosquito-borne viruses including dengue virus, chikungunya virus and Zika virus. Herewith, I aim to a) better understand viral pathogenesis, b) identify markers that predict disease outcome, and c) aid in the rational development of strategies to prevent/ combat infection.

What is your favourite virus?

'Favourite' is a bit of an odd word but I find it extremely important to work on the above mentioned viruses. The number of infections each year are staggering and as yet there is nothing we can do to alleviate disease. Fundamental research is crucial to be able to combat these infections in the future.

What is your advice to early career virologists?

My advice to young virologists is to communicate their ideas, thoughts and dreams with already established researchers. Walk up to them at conferences and make sure you're seen! Your network is key to make the next step in your career (via collaborative grant applications etc). This is exactly how I got the opportunity to initiate my own research.

Recent publications

Wolff G, Limpens RWAL, Zevenhoven-Dobbe JC, Laugks U, Zheng S, de Jong AWM, Koning RI, Agard DA, Grünewald K, Koster AJ, Snijder EJ, Bárcena M. A molecular pore spans the double membrane of the coronavirus replication organelle. Science. 2020. [doi:10.1126/science.abd3629](https://doi.org/10.1126/science.abd3629)

van Riel D, de Wit E. Next-generation vaccine platforms for COVID-19. Nat Mater. 2020. [doi:10.1038/s41563-020-0746-0](https://doi.org/10.1038/s41563-020-0746-0)

Lycett SJ, Pohlmann A, Staubach C, Caliendo V, Woolhouse M, Beer M, Kuiken T; Global Consortium for H5N8 and Related Influenza Viruses. Genesis and spread of multiple reassortants during the 2016/2017 H5 avian influenza epidemic in Eurasia. Proc Natl Acad Sci U S A. 2020. [doi:10.1073/pnas.2001813117](https://doi.org/10.1073/pnas.2001813117)

