



# KNVM Virology News

## Dear fellow virologist,

We would like to draw your attention to the **PhD course in Virology** organized by the Viroscience department of ErasmusMC which will take place on 4-8 October 2021 (for more information visit [www.molmed.nl](http://www.molmed.nl)).

**Jeroen Kortekaas** has accepted a new position abroad and is unfortunately unable to combine this with his virology board membership. Thank you, Jeroen, for your contributions over the past years and good luck with your new job!

The interviews in this edition are with two of the members of the **DYVS** organising committee. Make sure to register [here](#) if you would like to receive updates on this seminar series and send in your abstract if you would like to present your PhD work.

The board of the Virology division of the KNVM

(Emmanuel Wiertz, Jolanda Smit, Ronald van Rij, Bart Haagmans, Katja Wolthers, Martijn Langereis, and Puck van Kasteren)

## Virology events

### Sep 29, 2021

PhD defense: Lisa van de Wijer, Radboud ([info](#))

### Sep 29, 2021

PhD defense: Wouter v/d Heijden, Radboud ([info](#))

### Sep 30, 2021

PhD defense: Erion Lyoo, UU ([info](#))

### Nov 17, 2021

PhD defense: Federica Sicca, Groningen



## Virology Double-Interview

### Erick Bermúdez-Méndez

PhD-student

Virology and Mol. Biology  
WBVR/WUR

### Mirte Pascha

PhD-student

Virology - Vet Medicine  
Utrecht University



### What is your main research focus?

My current research focus is on the molecular biology of three-segmented bunyaviruses. More specifically, I am studying the process of genome packaging and the potential role of incomplete virus particles (i.e. particles lacking one or more genome segments) in viral spread.

### Who inspires you in your scientific career?

Inspiration comes to me from anyone or anything. It can be everywhere. Sometimes it comes from an interaction with a stranger, from friends, from colleagues, from nature or from a piece of art, but when I think about it strictly with a scientific perspective, I have definitely found inspiration in many fellow Latin American scientists doing their best in different parts of the world. Special mention to José María Gutiérrez Gutiérrez (Chema).

### Why is your research important?

Several pathogenic bunyaviruses pose a threat for animal and public health. I am a firm believer that a comprehensive understanding of the fundamental biology of pathogenic microorganisms is essential for the successful development of control measures in the event of an outbreak. Hopefully, a better understanding of the biological processes we are studying can help in the efforts to design efficacious vaccines and therapeutics against bunyaviruses.

### What is your main research focus?

My research focuses on antiviral strategies targeting the surface glycoproteins of influenza A virus. We develop and test antibodies, nanobodies, antiviral peptides, and vaccine antigens and aim specifically for those that are broadly cross-reactive. In addition to the obvious therapeutic intentions we also plan to use these tools to learn more about our targets, for example in terms of antigenic evolution.

### What is your favourite virus?

I have been fascinated by influenza since I first learned about the principles of antigenic drift and shift that make it to the successful pathogen that it is. These properties form interesting challenges in my current research. There was however a time where I swore I would never work on flu. I was working on hantaviruses during my Master's internship at Karolinska Institute and since I was initially more into fundamental research, the blank canvas of a lesser studied virus like hanta was very exciting.

### Of which accomplishment are you most proud?

No big scientific accomplishments yet, I am working on that! In the meantime I am happy with what we achieved so far with the Dutch Young Virologist Seminars. There is a lot of very interesting science being done by my fellow virology PhD's that deserves more recognition. Therefore I organise these monthly seminars with a diverse and highly motivated group of PhD candidates. It is so rewarding to see how enthusiastic our speakers are for having the opportunity to share their work.

## Recent publications

Bermúdez-Méndez E, Katrukha EA, Spruit CM, Kortekaas J, Wichgers Schreur PJ. 2021. Visualizing the ribonucleoprotein content of single bunyavirus virions reveals more efficient genome packaging in the arthropod host. *Commun Biol*. doi: [10.1038/s42003-021-01821-y](https://doi.org/10.1038/s42003-021-01821-y).

Couderé K, van der Straten K, Brouwer L, Koen G, van Eijk H, Pajkrt D, Murk JL, Wolthers KC. 2021. Neutralising Antibodies against Enterovirus and Parechovirus in IVIG Reflect General Circulation: A Tool for Sero-Surveillance. *Viruses*. doi: [10.3390/v13061028](https://doi.org/10.3390/v13061028).

Kovacikova K, Gorostiola González M, Jones R, Reguera J, Gigante A, Pérez-Pérez MJ, Pürstinger G, Moesslacher J, Langer T, Jeong LS, Delang L, Neyts J, Snijder EJ, van Westen GJP, van Hemert MJ. 2021. Structural Insights into the Mechanisms of Action of Functionally Distinct Classes of Chikungunya Virus Nonstructural Protein 1 Inhibitors. *Antimicrob Agents Chemother*. doi: [10.1128/AAC.02566-20](https://doi.org/10.1128/AAC.02566-20).

