

Curriculum Vitae - Nele Villabruna

Personal Information

Department of Pathology & Institute of Biochemistry Research Center for Emerging Infections and Zoonoses (RIZ) University of Veterinary Medicine Hannover Bünteweg 17 30559 Hannover Germany	Tel. +49-511-953-6144 E-Mail: nele.villabruna@tiho-hannover.de ORCID: 0000-0003-2147-0178
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Education

2016–2022	PhD Program , Department of Viroscience, Erasmus MC, Rotterdam, The Netherlands <u>PhD Thesis</u> : Human norovirus emergence and circulation in humans and animals (Link to thesis) <u>Supervision</u> : Dr. Miranda de Graaf, Prof. Marion Koopmans
2013–2014	Master of Research in Applied Marine Sciences , University of Plymouth, UK (graduated with Distinction) <u>Master Thesis</u> : Characterisation of the <i>Emiliana huxleyi</i> virus protein EHV298 <u>Supervision</u> : Prof. Mike Allen, Dr. Colin Munn
2009–2013	Bachelor of Science in Biology , University of Basel, Switzerland Major in biology of infection and epidemiology, plant biology, cell biology and neurobiology, and zoology and evolutionary biology
2008	Matur (=Abitur) , Gymnasium Leonhard, Basel, Switzerland

Research Experience

Since 2024	Project Leader (Walter Benjamin Position) Department of Pathology, Research Center for Emerging Infections, and Zoonoses (RIZ), University of Veterinary Medicine Hannover, Germany <u>Project</u> : Norovirus interspecies transmission barriers and susceptibility factors
2023–2024	Postdoctoral Fellow (Pilot Project financed by the National Research Platform on Zoonoses) Institute of Biochemistry, Research Center for Emerging Infections, and Zoonoses (RIZ), University of Veterinary Medicine Hannover, Germany <u>Group</u> : Prof. Dr. Gisa Gerold <u>Project</u> : Development of an <i>ex-vivo</i> model to study zoonotic norovirus transmission
2015–2016	Research Assistant , Department of Infectious Disease, Virology, Heidelberg University, Germany <u>Project</u> : Late endosomal trafficking and fusion of <i>phleboviruses</i> <u>Supervision</u> : Dr. Pierre-Yves Lozach

Awards

2024–2026	Walter Benjamin Position , 542416050, German Research Foundation (DFG)	221.796 €
2023–2024	Postdoc Pilot Project , 01KI2310, National Research Platform on Zoonoses	198.361 €
2022	ORKG curation grant Microbiology&Virology (German National Library of Medicine)	2.400 €
2020	Travel Award 39 th Annual meeting of the American Society of Virology, USA	500 US\$
2019	Travel Grant 7 th International Calicivirus Conference, Australia	1.500 AU\$
2018	Travel Award 37 th Annual meeting of the American Society of Virology, USA	500 US\$
2015	Plymouth Marine Laboratory Prize for Outstanding Achievement and Best Research Project	100 £

<u>Other Activities</u>	
2025	Organizing and Chairing the jGfV session during the 34 th Annual Meeting of the Society for Virology in Hamburg
2024	Organizing and Chairing the jGfV session during the 33 rd Annual Meeting of the Society for Virology in Vienna
2023–2025	Student Representative in the Board of the young Society for Virology (jGfV)
2021	Teaching of the Mastercourse Lecture “Pathogenesis & evolution: Gastrointestinal disease: Noro- & rotaviruses”
2018	Organisation of the workshops for PhD students and postdocs “How to communicate your science”, ErasmusMC, Rotterdam, The Netherlands
2016–2022	Organisation of the Virology Journal Club, ErasmusMC, Rotterdam, The Netherlands
2016–2021	Supervision of Master students and technical assistants, ErasmusMC, Rotterdam, NL
Since 2016	Reviewing Journal of Emerging Diseases (ISSN: 1080-6040), Germs (ISSN: 2248- 2997), PLoS One (ISSN: 1932-6203), and Open Life Sciences (ISSN: 2391-5412).
<u>Presentations (selection)</u>	
2024	Development of an <i>ex vivo</i> model to study the zoonotic transmission of noroviruses (Poster) 33rd Annual Meeting of the Society for Virology , Vienna, Austria
2023	Insights into the role of the norovirus polymerase on virus emergence (Poster) 8th International Calicivirus Conference , Rotterdam, The Netherlands
2022	Human noroviruses attach to intestinal tissues of a broad range of animal species (Talk) 1st Workshop One Health and Zoonotic Viruses , Goslar, Germany
2020	Immunogenicity and specificity of antibody response against the norovirus capsid protein and non-structural proteins (Flash talk & Poster) 39th Annual Meeting of the American Society of Virology , Fort Collins, USA
2019	The pattern of norovirus attachment varies among species (Talk) 7th International Calicivirus Conference , Sydney, Australia
2019	Can norovirus jump the species barrier? (Poster & Pitch) General Meeting of the Netherlands Centre for One Health , Nijmegen, the Netherlands
2019	Norovirus attachment to intestinal tissue of different species (Poster) 7th European Congress of Virology , Rotterdam, The Netherlands
2019	Norovirus attachment to intestinal tissue of different species (Talk & Poster) Young COMPARE meeting , Copenhagen, Denmark
2018	Profiling of antibody responses to structural and non-structural proteins after norovirus infection (Talk) 37th Annual Meeting of the American Society of Virology , Madison, USA
2018	Serological responses to norovirus structural and non-structural proteins after infection (Talk & Poster) Young COMPARE Meeting , Copenhagen, Denmark
2017	Serological responses to norovirus structural and non-structural proteins after infection (Talk) Young Antigone Meeting , Cambridge, UK
2015	Late endosomal trafficking and fusion of <i>phleboviruses</i> (Talk) Cell Biology of Viral Infections Workshop , Schöntal, Germany

Publications

- 1) Izquierdo-Lara RW, **Villabruna N**, Hesselink DA, Schapendonk CME, Ribó Pons S, Meier JIJ, Goodfellow I, Dalm V, Fraaij PLA, van Kampen J, Koopmans MPG, de Graaf M. **(2024)** Patterns of the Within-Host Evolution of Human Norovirus in Immunocompromised Individuals and Implications for Treatment. eBioMedicine, 109. doi.org/10.1016/j.ebiom.2024.105391 ([Link](#))
- 2) **Villabruna N**, Izquierdo-Lara RW, Schapendonk CME, de Bruin E, Chandler F, Thao TTN, Westerhuis BM, van Beek J, Kohns Vasconcelos M, Sigfrid L, Giaquinto C, Goossens H, Bielicki JA, Fraaij PLA, Koopmans MPG and de Graaf M. **(2022)** Profiling of humoral immune responses to norovirus in children across Europe. Scientific Reports, 12(1): p.14275. doi.org/10.1038/s41598-022-18383-6 ([Link](#))
- 3) Van Kampen JJA, Dalm VASH, Fraaij PLA, Oude Munnink BB, Schapendonk CME, Izquierdo-Lara RW, **Villabruna N**, Ettayebi K, Estes MK, Koopmans MPG, de Graaf M. **(2022)** Clinical and in-vitro evidence favoring immunoglobulin treatment of a chronic norovirus infection in a patient with common variable immunodeficiency. The Journal of Infectious Diseases, 226(19): p.1781-1789. doi.org/10.1093/infdis/jiac085 ([Link](#))
- 4) **Villabruna N**, Schapendonk CME, Aron GI, Koopmans MPG, de Graaf M. **(2021)** Human noroviruses attach to intestinal tissues of a broad range of animal species. Journal of Virology, 95(3). doi.org/10.1128/JVI.01492-20 ([Link](#))
- 5) **Villabruna N**, Izquierdo Lara RW, Szarvas J, Koopmans MPG and de Graaf M. **(2020)** Phylogenetic investigation of norovirus transmission between humans and animals. Viruses, 12(11): p.1287. doi.org/10.3390/v12111287 ([Link](#))
- 6) **Villabruna N**, Koopmans MPG, de Graaf M. **(2019)** Animals as reservoir for human norovirus. Viruses, 11(5): p.478. doi.org/10.3390/v11050478 ([Link](#))
- 7) De Graaf M, **Villabruna N**, Koopmans MPG. **(2017)** Capturing norovirus transmission. Current Opinion in Virology, 22: p.64-70. doi.org/10.1016/j.coviro.2016.11.008 ([Link](#))