

CV Albert Osterhaus March 2023

Professor Osterhaus has been Head of the Department of Viroscience at Erasmus MC Rotterdam until 2014, is currently Director of the Center of Infection Medicine and Zoonosis Research and Guest-Professor at the University of Veterinary Medicine Hannover. He has a long track record as a scientific researcher and Principal Investigator of numerous major scientific projects. At Erasmus MC, Professor Osterhaus has run a diagnostic virology lab with more than 40 staff and a research virology lab with over 150 personnel. His research programme follows a novel integrated "viroscience" concept, bringing together world-leading scientists in molecular virology, immunology, epidemiology, pathogenesis, and intervention studies on human and animal virus infections. Among the major accomplishments are the discovery of more than 70 new viruses of humans and animals (e.g. human metapneumovirus, coronaviruses and influenza viruses), elucidation of the pathogenesis of major human and animal virus infections, and development of novel intervention strategies. This has enabled health authorities like the WHO to effectively combat disease outbreaks like SARS and avian influenza. The spin-offs, Viroclinics-DDL, Vironovative and CR2O, together employing more than 500 people, allow effective testing and refining of diagnostic tools and other intervention strategies and illustrate additional societally relevant successes. The international recognition of Professor Osterhaus is further highlighted by major prizes, guest lecture invitations, (co-)organiserships of international meetings and editorships of scientific journals. Professor Osterhaus has acted as mentor for more than 85 PhD students and holds several key patents. He is also the author of more than 1360 papers in peer-reviewed journals, together cited 90,000 times, with an H index 130. He is inventor on many patents and has been Chair of the European Working Group on Influenza (ESWI) and the One Health Platform/Commission for the past decades. He organised numerous international scientific conferences on influenza and other emerging infections, and received numerous prestigious awards. He holds several senior editorships and is Chief Editor of One Health Outlook, a newly established journal of the Springer-Nature group. He is member of the Dutch and German National Academies of Sciences, member of the Belgium Academia of Medicine, and Commander of the Order of the Dutch Lion.

D.o.B. 2-6-1948

Current Position

2014 - Professor / Founding Director, RIZ-TiHo Hannover

Academic and Research Posts

- 1989 1994 Head Laboratory of Immunobiology, RIVM, The Netherlands
- 1990 2010 Professor of Environmental Virology, State University Utrecht
- 1993 2015 Professor of Virology, Erasmus MC, Rotterdam

- 1993 2015 Head of the Department of Viroscience, Erasmus MC, Rotterdam
- 1993 2015 Director National Influenza Center (NIC), Rotterdam
- 1995 2000 Director WHO Global Reference Laboratory for Measles, Rotterdam
- 2003 2015 WHO National Reference Laboratory for Measles and Rubella with RIVM
- 1995 2015 Director WHO Collaborating Centre Arboviruses and Haemorrhagic Fevers
- 2011 2016 Professor of Wildlife Virology and Virus Discovery, University Utrecht
- 2014 Professor University of Veterinary Medicine Hannover (TiHo)

Other Scientific Roles

- 1993 2017 Associate Editor, Vaccine Journal
- 1998 2003 Member and Chairman of the Scientific Veterinary Committee (European Commission)
- 1998 2003 Member of the Scientific Steering Committee (SSC) and Chairman of its TSE/BSE ad hoc Group (European Commission)
- 2007 2015 Chairman of the Postgraduate School Molecular Medicine Erasmus MC
- 2008 2015 Chairman of the Master program Infection and Immunity
- 2012 2018. Editor-in-Chief, Current Opinion in Virology and ONE HEALTH Journal
- 2018 Editor-in-Chief, One Health Outlook (Springer-Nature)

Awards and Prizes

- 1985 Schimmel Viruly Award: Faculty of Veterinary Medicine, Utrecht
- 1989 Heine Medin Award: European Society against Virus Diseases
- 1992 Ciba Geigy Prize for Research in Animal Health
- 1993 Laureate Van Loghem lecture, Dutch Society for Immunology
- 1995 Firkin Oration, Australian Society for Medical Research
- 1998 M.W.Beijerinck Virology Award, Royal Dutch Academy of Sciences
- 2000 UK Royal Society lecture on 'Catastrophes after crossing species barriers'
- 2000 Mulder-Masurel Award on influenza research
- 2002 The ESCV Gardner Lecture Viruses emerging from animal reservoirs
- 2004 James H. Nakano Citation CDC prize for exceptional scientific publications.
- 2004 Dr. Saal van Zwanenberg-Oragon prize
- 2004 Reinier de Graaf medal for exceptional contribution to medicine
- 2006 Federa prize for original and exceptional research achievements
- 2006 European Respiratory Society European Lung Foundation Award
- 2007 Prix scientifique Louis D Académie des sciences de l'Institut de France
- 2007 Allan Granoff Lectureship in Virology Award, St. Jude's Hospital
- 2008 Erasmus Award, Erasmus MC Rotterdam, The Netherlands
- 2010 ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases
- 2011 NGI Valorisation Award for 'Excellent deal making with Industry" (1million Euros)
- 2012 WSAVA One Health Award for cross-species viral infection
- 2015 Chanchiani Global Health Research Award (McMaster, USA)
- 2016 Doctorate h.c. University Liege, Belgium
- 2016 Robert C. Gallo Award for Scientific Excellence
- 2018 ACVM Distinguished Microbiologist Award
- 2021 Fritz-Hartmann Lecture
- 2023 Medalla Rectoral of the University of Chile

20 Selected Publications on acute respiratory Infections (of >1360 original publications, H-index 126, cited 89.000 times)

- Palacios-Predrero MA *et. al.*, Age-related signs of immunosenescence correlate with poor outcome of mRNA COVID-19 vaccination in older adults. *Nature Aging* 2022 <u>https://doi.org/10.1038/s43587-022-00292-y</u>
- 2. Armando F, et al., SARS-CoV-2 Omicron variant causes mild pathology in the upper and lower respiratory tract of hamsters. *Nat Commun*. 2022 Jun 20;13(1):3519.
- 3. Postel A et al., Infections with highly pathogenic avian influenza A virus (HPAIV) H5N8 in harbor seals at the German North Sea coast, 2021. *Emerg Microbes Infect*. 2022 dec; 11(1):725-729
- 4. Du W. et al., An ACE2-blocking antibody confers broad neutralization and protection against Omicron and other SARS-CoV-2 variants of concern. *Sci Immunol*. 2022 Apr 26:eabp9312.
- 5. Jo WK. et al.,: Reverse genetics systems for contemporary isolates of RSV enable rapid evaluation of antibody escape mutants. *PNAS* 2021 Apr 6;118(14)
- Influenza Vaccines:Successes and Continuing Challenges. Becker T, et al., J Infect Dis. 2021 Sep 30;224
- 7. Wang C, et al., A human monoclo<u>nal antibody blocking SARS-CoV-2 infection</u>. *Nat Commun*. 2020 May 4;11(1):2251.
- Thiele S et al., Cellular Importin-α3 Expression Dynamics in the Lung Regulate Antiviral Response Pathways against Influenza A Virus Infection. *Cell Rep.* 2020 Apr 21;31(3): 107549
- 9. Herfst S, et al., Hemagglutinin Traits Determine Transmission of Avian A/H10N7 Influenza Virus between Mammals. *Cell Host Microbes*. 2020 Oct 7;28(4):602-613.
- 10. de Vries RD, *et al.*, Human Paramyxovirus Infections Induce T Cells That Cross-React with Zoonotic Henipaviruses. **mBio**. 2020 Jul 7;11(4):e00972-20.
- 11. Haagmans BL, et al., An orthopoxvirus-based vaccine reduces virus excretion after MERS-CoV infection in dromedary camels. *Science* 2016, 351:77-81.
- 12. Mina MJ, et al., Long-term measles-induced immunomodulation increases overall childhood infectious disease mortality. *Science* 2015, 348:694-699.
- 13. Zaki AM, et al., Isolation of a novel coronavirus from a man with pneumonia in Saudi Arabia**.** *New England Journal of Medicine* 2012, 19:1814-1820.
- 14. Herfst S, et al., Airborne transmission of influenza A/H5N1 virus between ferrets. *Science* 2012, 336:1534-1541.
- 15. Stittelaar KJ, et al., Antiviral treatment is more effective than smallpox vaccination upon lethal monkeypox virus infection. *Nature* 2006, 439:745-748.
- 16. Haagmans BL et al., Pegylated interferon-alpha protects type 1 pneumocytes against SARS coronavirus infection in macaques. *Nature Medicine* 2004, 10(3):290-293.
- 17. Kuiken T, et al., Avian H5N1 influenza in cats. *Science* 2004, 306:241.
- 18. Fouchier RA, et al., Koch's postulates fulfilled for SARS virus. *Nature* 2003, 423:240.
- 19. Martina BE, et al., SARS virus infection of cats and ferrets. *Nature* 2003, 425:915.
- 20. van den Hoogen BG, et al., A newly discovered human pneumovirus isolated from young children with respiratory tract disease. *Nature Medicine* 2001. 7(6):719-24.