Antonius (Tom) Oomens, Ph.D.

Associate Professor of Virology
Department of Veterinary Pathobiology
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Education:
1992: M.S., Virology/Immunology, Wageningen University
1999: Ph.D., Molecular Virology, Wageningen University
2000-2005: Post-Doc, Molecular Virology, University of Alabama Medical School
2006-2007: Post-Doc, Molecular Virology, University of Virginia

Academic Appointments:
2008-present: Assistant Professor, Center for Veterinary Health Sciences, Oklahoma State University, OK
2006-2007: Post-doc, Dept. of Pathology, University of Virginia, VA
2000-2005: Post-doc, Dept. of Microbiology, University of Alabama Medical School, AL
1994-1999: Graduate student, Boyce Thompson Institute at Cornell University, NY (Graduate program from Wageningen University, Wageningen, the Netherlands)
1992-1993: Research specialist, Boyce Thompson Institute at Cornell University, NY

Awards and Honors:
2006: Article (A.G.P. Oomens, K.P. Bevis, and G.W. Wertz, 2006) selected as Journal of Virology Spotlight
2005: First place, Basic Research Presentations, Department of Pathology, University of Virginia
2003: American Society for Virology travel award
2003: Article (A.G.P. Oomens, A.G. Megaw, and G.W. Wertz, 2003) selected as ASM Journal Highlight
2003: Postdoctoral Scholar Research Development Award (University of Alabama Med. School)
2001: Best Postdoctoral Research Presentation, Microbiology, University of Alabama Med. School
2000-2003: Post-doctoral Trainee
1990: Erasmus Award for Undergraduate Students (European Community)

Other Professional Experiences and Memberships:
1996-present: American Society for Virology
2006-present: American Society for Microbiology
2009-present: American Society for the Advancement of Science
2009-present: Sigma Xi

Research Support:
Current:

Past:

- 2013-2016: Oklahoma Center for Advancement of Science and Technology (OCAST) Health Research Award HR13-179, "Structure-function analysis of the Matrix protein hinge region in RSV assembly.", Role: PI, Awarded: $135,000 direct

- 2013-2018: NIH/NIMGS CoBRE 1 P20 GM103648-01A1, "Development of an RSV Vaccine by Molecular Manipulation of the Viral Matrix Protein.", Role: Project Leader, Awarded: $850,000 direct
- 2008-2012: Assembly of Human Respiratory Syncytial Virus, Oklahoma Center for Advancement of Science and Technology (OCAST) Health Research Program New Scientist Award, "Assembly of human Respiratory Syncytial Virus", Role: PI, Awarded: $300,000 direct

Selected Publications:

1. Chirkova, T., S. Boyoglu-Barnum, K. Gaston, F. Malik, S. Trau, A.G.P. Oomens, and L. Anderson (2013). Respiratory Syncytial Virus G Protein CX3C Motif Impairs Human Airway Epithelial and Immune Cell Responses. Journal of Virology, Vol. 87, No. 24, p. 13,466-13,479.
2. Baviskar, P., Hotard, A.L., Moore, M.L., and Antonius G.P. Oomens (2013). The Respiratory Syncytial Virus Fusion Protein Targets to the Perimeter of Inclusion Bodies and Facilitates Filament Formation by a Cytoplasmic Tail - Dependent Mechanism. Journal of Virology, Vol. 87, No. 19, p. 10730-10741.
3. Mitra, R, Pradyumna Baviskar, Rebecca R. Duncan-Decocq, Darshna Patel, and Antonius G.P. Oomens (2012). The Human Respiratory Syncytial Virus Glycoproteins Matrix Protein is Required for Maturation of Viral Filaments. Journal of Virology, Vol.86, No. 8, p. 4432-4443.
4. Batonick, M., Antonius G.P. Oomens, and Gail W. Wertz (2008). Human Respiratory Syncytial Virus Glycoproteins are Not Required for the Apical Targeting and Release from Polarized Epithelial Cells. Journal of Virology, Vol. 82, No. 17, p. 8664-8672 .
5. Sastre, P., Antonius G.P. Oomens, and Gail W. Wertz (2007). The Stability of Human Respiratory Syncytial Virus is Enhanced by Incorporation of the Baculovirus GP64 Protein. Vaccine, Vol 25, p. 5025-5033.
6. Oomens, A.G.P., Kevin P. Bevis, and Gail W. Wertz (2006). The Cytoplasmic Tail of the Human Respiratory Syncytial Virus F Protein Play Critical Roles in Cellular Localization of the F Protein and Infectious Progeny Production. Journal of Virology, Vol. 80, No. 21, p. 10465-10477.
7. Oomens, A.G.P. and Gail W. Wertz (2004). trans-Complementation Allows Recovery of Human Respiratory Syncytial Viruses That Are Infectious But Deficient In Cell-to-Cell Transmission. Journal of Virology, Vol. 78, No. 17, p. 9064-9072.
8. Oomens, A.G.P. and Gail W. Wertz (2004). The Baculovirus GP64 Protein Mediates Highly Stable Infectivity of a human Respiratory Syncytial Virus Lacking Its Homologous Transmembrane Glycoproteins. Journal of Virology, Vol. 78, No. 1, p. 124-135.
9. Cartee, T.L., A.G. Megaw, A.G.P. Oomens, and G.W. Wertz (2003). Identification of a Single Amino Acid Change in the human Respiratory Syncytial Virus L Protein That Affects Transcriptional Termination. Journal of Virology, Vol. 77, No. 13, p. 7352-7360.
10. Oomens, A.G.P., A.G. Megaw, and G.W. Wertz (2003). Infectivity of a human Respiratory Syncytial Virus Lacking the SH, G, and F Proteins Is Efficiently Mediated by the Vesicular Stomatitis Virus G protein. Journal of Virology, Vol. 77, No. 6, p. 3785-3798.