

CURRICULUM VITAE

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EDUCATION

- | | |
|------|--|
| 1999 | Faculty of Veterinary Medicine, Ghent University, Belgium. D.V.M.;
Veterinary Medicine |
| 2003 | Faculty of Veterinary Medicine, Ghent University, Belgium. Ph.D.;
Veterinary Virology |

ACADEMIC and PROFESSIONAL POSITIONS

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| 2000-2003 | Graduate Research Assistant in the laboratory of Dr. Hans Nauwynck,
Department of Virology, Parasitology & Immunology, Ghent University,
Belgium. |
| 2003-2005 | Postdoctoral Researcher in the laboratory of Dr. Hans Deckmyn, Laboratory
of Thrombosis Research, University of Leuven, Belgium. |
| 2006-2008 | Postdoctoral Associate in the laboratory of Dr. Nikolaus Osterrieder,
Department of Microbiology & Immunology, College of Veterinary
Medicine, Cornell University. |
| 2008-2011 | Postdoctoral Research Fellow in the laboratory of Dr. Hans Nauwynck,
Department of Virology, Parasitology & Immunology, Ghent University,
Belgium. |
| 2010-2012 | Research docent, Department of Comparative Physiology and Biometrics,
Ghent University, Belgium. |
| 2013-present | Assistant Professor, Baker Institute for Animal Health, College of Veterinary
Medicine, Cornell University. |

HONORS and AWARDS

- Stephen Straus travel Award for the 31th International Herpes Workshop (IHW), Seattle (2006)
- Postdoctoral research fellowship from the Research Foundation Flanders (2008-2011)

- Burroughs Wellcome Fund for the Merial-NIH Veterinary Scholars Symposium, Ithaca (2104)
- Atkinson Center for a Sustainable Future Faculty Fellow (2014-to date)

PUBLICATIONS

Peer Reviewed Research Articles

1. **Van de Walle GR**, Favoreel HW, Nauwynck HJ, Van Oostveldt P, Pensaert MB (2001). Involvement of cellular cytoskeleton components in antibody-induced internalization of viral glycoproteins in pseudorabies virus-infected monocytes. *Virology* 288, 129-138.
2. **Van de Walle GR**, Favoreel HW, Nauwynck HJ, Van Oostveldt P, Pensaert MB (2002). Antibody-induced internalization of viral glycoproteins in pseudorabies virus-infected monocytes and role of the cytoskeleton: a confocal study. *Veterinary Microbiology* 86, 51-57.
3. Van Minnebruggen G, **Van de Walle GR**, Favoreel HW, Nauwynck HJ, Pensaert MB (2002). Temporary disturbance of actin stress fibers in swine kidney cells during pseudorabies virus infection. *Veterinary Microbiology* 86, 89-94.
4. **Van de Walle GR**, Favoreel HW, Nauwynck HJ, Mettenleiter TC, Pensaert MB (2003). Transmission of pseudorabies virus from immune-masked monocytes to endothelial cells. *Journal of General Virology* 84, 629-637.
5. **Van de Walle GR**, Favoreel HW, Nauwynck HJ, Pensaert MB (2003). Antibody-induced internalization of viral glycoproteins and gE-gI Fc receptor activity protect pseudorabies virus-infected monocytes from efficient complement-mediated lysis. *Journal of General Virology* 84, 939-948.
6. Favoreel HW, **Van de Walle GR**, Nauwynck HJ, Mettenleiter TC, Pensaert MB (2003). Pseudorabies virus (PRV)-specific antibodies suppress intracellular viral protein levels in PRV-infected monocytes. *Journal of General Virology* 84, 2969-2973.
7. **Van de Walle GR**, Vanhoorelbeke K, Mayer ZS, Illyés E, Baert J, Pareyn I, Deckmyn H (2005). Two different functional active conformations of the integrin $\alpha 2\beta 1$, depending on activation condition and cell type. *Journal of Biological Chemistry* 280, 36873-36882.
8. **Van de Walle GR**, Schoolmeester A, Iserbyt B, Cosemans JMEM, Heemskerk JWM, Hoylaerts M, Nurden A, Vanhoorelbeke K, Deckmyn H (2007). Activation of $\alpha \text{IIb}\beta 3$ is a sufficient but also an imperative prerequisite for activation of $\alpha 2\beta 1$ on platelets. *Blood* 109, 595-602.
9. von Einem J, Smith PM, **Van de Walle GR**, O'Callaghan DJ, Osterrieder N (2007). In vitro and in vivo characterization of equine herpesvirus (EHV-1) mutants devoid of the viral chemokine-binding glycoprotein G (gG). *Virology* 362, 151-162.
10. **Van de Walle GR**, May ML, Sukhumavasi W, Von Einem J, Osterrieder N (2007). Herpesvirus chemokine-binding glycoprotein G (gG) efficiently inhibits neutrophil chemotaxis *in vitro* and *in vivo*. *Journal of Immunology* 179, 4161-4169.
11. **Van de Walle GR**, Sakamoto K, Osterrieder N (2008). CCL-3 and viral chemokine-binding protein gG modulate pulmonary inflammation and virus replication during equine herpesvirus type 1 (EHV-1) infection. *Journal of Virology* 82, 1714-1722.
12. Delesalle C, **Van de Walle GR**, Nolten C, Verdonck L, Van Hemelrijck A, Drinkenburg W, De Bosscher H, Claes P, Deprez P, Lefere L, Torfs S, Lefebvre RA (2008). Determination

- of the source of increased serotonin (5-HT) levels in blood and peritoneal fluid of colic horses with compromised bowel. *Equine Veterinary Journal* 40, 326-331.
13. Rosas C, **Van de Walle GR***, Metzger SM, Dubovi E, Hoesler K, Parrish C, Osterrieder N (2008) (***contributed equally**). Evaluation of a vectored equine herpesvirus type 1 (EHV-1) vaccine expressing H3 haemagglutinin in the protection of dogs against canine influenza. *Vaccine* 26, 2335-2343.
 14. **Van de Walle GR**, Peters ST, VanderVen BC, O'Callaghan DJ, Osterrieder N (2008). Equine herpesvirus type 1 (EHV-1) entry via endocytosis is facilitated by alphaV integrins and an RSD motif in glycoprotein D. *Journal of Virology*, 82: 11859-11868.
 15. Gryspeerdt A, Chiers K, Govaere J, Vercauteren G, Ducatelle R, **Van de Walle GR**, Nauwynck HJ (2009). Neonatal foal death due to infection with equine arteritis virus in Belgium. *Flemish Veterinary Journal*, 78: 189-193.
 16. **Van de Walle GR**, Kaufer BB, Chbab N, Osterrieder N (2009). Analysis of the herpesvirus chemokine-binding glycoprotein G residues essential for chemokine binding and biological activity. *Journal of Biological Chemistry*, 284: 5968-5976.
 17. Fulton A, Peters ST, Perkins GA, Jarosinski KW, Damiano A, Brosnahan M, Buckles EL, Osterrieder N, **Van de Walle GR** (2009). Effective treatment of respiratory alphaherpesvirus infection using RNA interference. *Plos One*, 4: e4188.
 18. **Van de Walle GR**, Goupil R, Wishon C, Damiani A, Perkins GA, Osterrieder N. (2009). A SNP in herpesvirus DNA polymerase is sufficient to cause lethal neurological disease. *Journal of Infectious Diseases*, 200: 20-25.
 19. Perkins GA, Goodman LB, Tsujimura K, **Van de Walle GR**, Kim SG, Dubovi EJ, Osterrieder N (2009). Investigation of the prevalence of neurologic equine herpes virus type 1 (EHV-1) in a 23-year retrospective analysis (1984-2007). *Veterinary Microbiology*, 139: 375-378.
 20. Gryspeerdt AC, Vandekerckhove AP, Barbé F, **Van de Walle GR***, Nauwynck HJ (2010). (***shared senior authorship**). Differences in replication kinetics and cell tropism between neurovirulent and non-neurovirulent EHV1 strains during the acute phase of infection in horses. *Veterinary Microbiology*, 142: 242-53.
 21. Brosnahan MM, Damiani A, **Van de Walle GR**, Perkins GA, Osterrieder N (2010). The effect of siRNA treatment on experimental equine herpesvirus type 1 (EHV-1) infection in horses. *Virus Research*, 147: 176-181.
 22. Verryken K, Saey V, Maes S, Borchers K, **Van De Walle GR**, Ducatelle R, Deprez P (2010). First Report of Multinodular Pulmonary Fibrosis Associated with Equine Herpesvirus 5 in Belgium. *Flemish Veterinary Journal*, 79: 297-301.
 23. **Van de Walle GR**, May MA, Peters ST, Metzger SM, Rosas CT, Osterrieder N (2010). A vectored equine herpesvirus type 1 (EHV-1) vaccine elicits protective responses against EHV-1 and H3N8 equine influenza virus. *Vaccine*, 28: 1048-1055.
 24. Vandekerckhove AP, Glorieux S, Gryspeerdt AC, Steukers L, Duchateau L, Osterrieder K, **Van de Walle GR***, Nauwynck HJ. (2010). (***shared senior authorship**). Replication of neurovirulent versus non-neurovirulent equine herpesvirus type 1 strains in equine nasal mucosa explants. *Journal of General Virology*, 91: 2019-2028.
 25. Stevens MG, Van Poucke M, Peelman LJ, Rainard P, De Spiegeleer B, Rogiers C, **Van de Walle GR**, Duchateau L, Burvenich C (2011). Anaphylatoxin C5a-induced toll-like receptor 4 signalling in bovine neutrophils. *Journal of Dairy Science*, 94: 152-164.

26. Spaas JH, Gambacurta A, Poletini M, Broeckx S, Van Hoeck F, De Schauwer C, **Van de Walle GR**, Van Soom A (2011). Purification and expansion of stem cells from the equine peripheral blood with clinical applications. *Flemish Veterinary Journal*, 80: 129-136.
27. Hussy GS, Hussy SB, Wagner B, Horohov DW, **Van de Walle GR**, Osterrieder N, Goehring LS, Rao S, Lunn DP (2011). Evaluation of immune responses following infection of ponies with an EHV-1 ORF1/2 deletion mutant. *Veterinary Research*, 42: 23.
28. Stevens MG, Peelman LJ, De Spiegeleer B, Pezeshki A, **Van de Walle GR**, Duchateau L, Burvenich C (2011). Differential gene expression of the toll-like receptor 4 cascade and neutrophil function in early and mid-lactating dairy cows. *Journal of Dairy Science*, 94: 1277-88.
29. Vandekerckhove AP, Glorieux S, Gryspeerdt AC, Steukers L, Van Doorselaere J, Osterrieder N, **Van de Walle GR***, Nauwynck HJ. (2011). (***shared senior authorship**). Equine alphaherpesviruses (EHV) differ in their efficiency to infect mononuclear cells during early steps of infection in nasal mucosal explants. *Veterinary Microbiology*, 152: 21-28.
30. Gryspeerdt AC, Vandekerckhove AP, Van Doorselaere J, **Van de Walle GR**, Nauwynck HJ (2011). Description of an unusual large outbreak of nervous system disorders in 2009 in Belgium. *Flemish Veterinary Journal*, 80: 147-154.
31. De Schauwer C, Meyer E, Cornillie P, De Vlieghe S, **Van de Walle GR**, Hoogewijs M, Declercq H, Govaere J, Demeyere K, Cornelissen M, Van Soom A (2011). Optimization of the isolation, culture and characterization of equine umbilical cord blood mesenchymal stromal cells. *Tissue Engineering Part C Methods*, 17: 1061-1070.
32. Glorieux S, Vandekerckhove AP, Goris N, Yang X-Y, Steukers L, **Van de Walle GR**, Croubels S, Neyts J, Nauwynck HJ (2012). Evaluation of the antiviral activity of (1'S,2'R)-9-[[1',2'-bis(hydroxymethyl)cycloprop-1'-yl]methyl]guanine (A-5021) against equine herpesvirus type 1 in cell monolayers and equine nasal mucosal explants. *Antiviral Research*, 93: 234-238.
33. Ma G, Feineis S, Osterrieder N, **Van de Walle GR** (2012). Identification and characterization of equine herpesvirus type 1 (EHV-1) pUL56 and its role in virus-induced downregulation of MHC class I. *Journal of Virology*, 86: 3554-3563.
34. De Schauwer C, Piepers S, **Van de Walle GR**, Demeyere K, Hoogewijs M, Govaere J, Van Soom A, Meyer E. (2012). In search for cross-reactivity to immunophenotype equine mesenchymal stromal cells by multicolor flow cytometry. *Cytometry-Part A*, 81: 312-323.
35. Gryspeerdt AC, Vandekerckhove AP, Bannazadeh HB, **Van de Walle GR***, Nauwynck HJ (2012) (***shared senior authorship**). Expression of late viral proteins is hampered in infected nasal mucosal leukocytes but not in epithelial cells during early pathogenesis of equine herpesvirus type 1 (EHV1) infection. *The Veterinary Journal*, 193: 576-578.
36. Spaas JH, De Schauwer C, Cornillie P, Meyer E, Van Soom A, **Van de Walle GR**. (2012). Culture and characterization of equine peripheral blood mesenchymal stromal cells. *The Veterinary Journal*, 195: 107-113.
37. Spaas JH, Chiers K, Bussche L, Burvenich C, **Van de Walle GR** (2012). Epithelial stem/progenitor cells in non-lactating versus lactating equine mammary gland. *Stem Cells and Development*, 21: 3055-3067.
38. Spaas JH, Oosterlinck M, Broeckx S, Van Soom A, Pille F, **Van de Walle GR** (2012). Treatment of equine degenerative joint disease with autologous peripheral blood-derived mesenchymal stem cells: a case report. *Flemish Veterinary Journal*, 81: 11-15.

39. JH Kydd, J Slater, N Osterrieder, DP Lunn, DF Antczak, W Azab, U Balasuriya, C Barnett, M Brosnahan, C Cook, A Damiani, D Elton, A Frampton, J Gilkerson, L Goehring, D Horohov, L Maxwell, J Minke, P Morley, H Nauwynck, R Newton, G Perkins, N Pusterla, G Soboll-Hussey, J Traub-Dargatz, H Townsend, **GR Van de Walle**, B Wagner. (2012). Third International Havemeyer Workshop on Equine Herpesvirus Type 1 (EHV-1). *Equine Veterinary Journal*, 44: 513-517.
40. N Thormann, **GR Van de Walle**, W Azab, N Osterrieder (2012). The role of secreted glycoprotein G of equine herpesviruses in immune modulation and virulence. *Virus Research*, 169: 203-211.
41. De Schauwer C, **Van de Walle GR**, Piepers S, Hoogewijs MH, Govaere JIJ, Meyer E, Van Soom A (2012). Successful isolation of equine mesenchymal stromal cells from cryopreserved umbilical cord blood-derived mononuclear cell fractions. *Equine Veterinary Journal*, 45: 518-522.
42. GA Perkins, **GR Van de Walle**, N Pusterla, HN Erb, N Osterrieder (2013). Evaluation of metaphylactic RNA interference to prevent equine herpesvirus type 1 (EHV-1) infection in an experimental model of equine herpesvirus myeloencephalopathy (EHM). *The American Journal of Veterinary Research*, 74: 248-256.
43. Spaas JH, Broeckx S, **Van de Walle GR**, Poletini M (2013). The effects of equine peripheral blood stem cells (PBSC) on cutaneous wound healing: a clinical evaluation in four horses. *Clinical and Experimental Dermatology*, 38: 280-284.
44. De Schauwer C, Goossens K, Piepers S, Hoogewijs MH, Govaere JIJ, Smits K, Meyer E, Van Soom A, **Van de Walle GR** (2014). Characterization and profiling of immunomodulatory genes of equine mesenchymal stromal cells from non-invasive sources. *Stem Cell Research & Therapy*, 5: 6.

Peer Reviewed Review Articles

1. **Van de Walle GR** (2000). Deep pyoderma in the German shepherd. *Flemish Veterinary Journal* 69, 80-87.
2. Favoreel HW, **Van de Walle GR**, Nauwynck HJ, Pensaert MB (2003). Virus complement evasion strategies. *Journal of General Virology* 84, 1-15.
3. Deckmyn H, Ulrichs H, **Van de Walle GR**, Vanhoorelbeke K (2004). Platelet antigens and their function. *Vox sanguinis* 87, 105-111.
4. Ulrichs H, Vanhoorelbeke K, **Van de Walle GR**, Katsutani S, De Meyer S, Staelens S, Deckmyn H (2004). New approaches for antithrombotic antiplatelet therapies. *Current Medicinal Chemistry* 11, 2261-2273.
5. Favoreel HW, Van Minnebruggen G, **Van de Walle GR**, Ficinska J, Nauwynck HJ (2006). Herpesvirus interference with virus-specific antibodies: bridging antibodies, internalizing antibodies, and hiding from antibodies. *Veterinary Microbiology* 113, 257-263.
6. Vanhoorelbeke K, Ulrichs H, **Van de Walle GR**, Fontayne A, Deckmyn H (2007). Inhibition of platelet glycoprotein Ib and its antithrombotic potential. *Current Pharmaceutical Design* 13, 2684-2697.
7. **Van de Walle GR**, Jarosinski KW, Osterrieder N (2008). Alphaherpesviruses and chemokines: a pas de deux not yet brought to perfection. *Journal of Virology* 82, 6090-6097.

8. **Van de Walle GR**, Cox E, Nauwynck HJ, Favoreel HW (2009). The role of dendritic cells in alphaherpesvirus infections: archetypes and paradigms. *Reviews in Medical Virology*, 19: 338-358.
9. Osterrieder N, **Van de Walle GR** (2010). Pathogenic potential of equine alphaherpesviruses: the importance of the mononuclear cell compartment in disease outcome. *Veterinary Microbiology*, 143: 21-28.
10. De Schauwer C, Meyer E, **Van de Walle GR**, Van Soom A (2011). Markers of stemness in equine mesenchymal stem cells: a plea for uniformity. *Theriogenology*, 75: 1431-1443.
11. Spiesschaert B, McFadden G, Hermans K, Nauwynck H, **Van de Walle GR** (2011). The current status and future directions of myxoma virus, a master in immune evasion. *Veterinary Research*, 42: 76.
12. Van Opdenbosch N, Favoreel H, **Van de Walle GR** (2012). Histone modifications in herpesvirus infections. Invited Review. *Biology of the Cell*, 104: 139-164.
13. **Van de Walle GR**, Osterrieder N (2012). Profiling chemokine-glycoprotein G interactions: implications for herpesviral immune evasion. Priority Paper Evaluation: Invited. *Future Virology*, 7: 441-444.
14. Spaas JH, DJ Guest, **Van de Walle GR** (2012). Tendon regeneration in human and equine athletes: ubi sumus-quo vadimus? *Sports Medicine*, 42: 871-890.
15. Caestecker K, **Van de Walle GR**. (2013). The role of BRCA1 in DNA double strand repair: past en present. *Experimental Cell Research*, 318: 575-587.
16. De Schauwer C, Meyer E, **Van de Walle G**, Van Soom A (2013). Current Clinical applications of equine mesenchymal stem cells: update. *Flemish Veterinary Journal*, 82: 327-336.
17. Borena BM, Bussche L, Burvenich C, Duchateau L, **Van de Walle GR**. (2013). Mammary stem cell research in veterinary science: an update. *Stem Cells and Development*, 22: 1743-1751.
18. De Schauwer C, **Van de Walle GR**, Van Soom A, Meyer E. (2013). Mesenchymal stem cell therapy in the horse: useful beyond orthopedic injuries? *Veterinary Quarterly*, 33: 234-241.

Conference Proceedings

1. **Van de Walle GR**, Vanhoorelbeke K, Majer Z, Illyés E, Baert J, Iserbyt BF, Pareyn I, Deckmyn H (2006). Different functional active conformations of integrin $\alpha 2\beta 1$ are induced dependent on the way platelets are activated. *Platelets*, 17: 108-125.
2. Delesalle C, Nolten C, **Van de Walle GR**, Verdonck L, Van Hemelrijck A, Drinkenburg W, Claes P, Deprez P, Lefere L, Torfs S, Lefebvre RA (2007). Determination of the source of increased serotonin (5-HT) levels in blood and peritoneal fluid of colic horses with compromised bowel. *Proceedings Hippos 2007*, 1.
3. Perkins GA, Goodman LB, Tsujimura K, **Van de Walle GR**, Kim SG, Dubovi E, Osterrieder N (2008). Investigation of neurologic equine herpesvirus type 1 epidemiology from 1984-2007. *Journal of Veterinary Internal Medicine*, 22: 819-820.
4. Fulton A, Perkins GA, Peters S, Osterrieder N, **Van de Walle GR** (2008). Treatment of EHV-1 infection using RNA interference. *Journal of Veterinary Internal Medicine*, 22: 738.
5. **Van de Walle GR** (2011). Stem cell therapy in the horse: a magician's tale or clinical reality? *Proceedings of the European Veterinary Conference Voorjaarsdagen 2011*, 345.

6. De Schauwer C, **Van de Walle G**, Meyer E, Van Soom A (2012). Cultivation of mesenchymal stromal cells from cryopreserved mononuclear cells isolated from equine umbilical cord blood. *Reproduction in Domestic Animals*, 47: 590.

Other Articles

1. **Van de Walle GR**, Favoreel HW, Nauwynck HJ, Van Oostveldt P, Pensaert MB (2001). The role of clathrin and actin in antibody-induced internalization of viral glycoproteins in pseudorabies virus-infected monocytes. *Bioconcepts*, p 4-5
2. **Van de Walle GR** (2013). Pursuing a cure for breast cancer. *Cat Watch*. Vol 14-8: p 1-7.
3. **Van de Walle GR** (2014). Feline breast cancer research. *Cat fancy*, in press.

Book Chapters

1. **Van de Walle GR**, De Schauwer C, Fortier LA (2014). Clinical applications of equine mesenchymal stem cells. *Equine Clinical Immunology*. M.J.B. Felipe (Editor). Submitted.

SERVICES

College of Veterinary Medicine Services

- VIP Advisory Committee (2013 – to date)
- Leadership Program Advisory Committee (2014 – to date)

Ad Hoc Grant Reviewer

- The Canadian Bovine Mastitis and Milk Quality Research Network (2012)
- Horserace Betting Levy Board (2013-present)
- Atkinson Center for a Sustainable Future (2014)

Ad Hoc Journal Reviewer

- Archives of Virology
- BMC Cell Biology
- BMC Veterinary Research
- Frontiers in Cancer Genetics
- Journal of Equine Veterinary Science
- Journal of Proteome Research
- Journal of Virology
- Plos One
- Regenerative Medicine
- Science
- Stem Cells

- Stem Cells and Development
- The Veterinary Journal
- The Virology Journal
- Tissue Engineering Part A
- Veterinary Microbiology
- Veterinary Research
- Viruses

Editorial Board Memberships

- Dataset Papers in Biology: Microbiology
- Associate Editor Virology Journal: Veterinary Virus section

PROFESSIONAL MEMBERSHIPS

- Belgian Society for Microbiology (2010-2012)
- Belgian Environmental Mutagen Society (2010-2012)
- Belgian Society of Physiology and Pharmacology (2010-2012)
- European Society for Veterinary Virology (2010-2013)
- American Society for Microbiology (2013-present)
- American Society for Virology (2013-present)
- International Society for Stem Cell Research (2013-present)
- Cornell University Stem Cell Program (2013-present)
- Cornell Comparative Cancer Biology Training Program (2014-present)