CURRICULUM VITAE

PERSONAL DETAILS

Title, first name, surname:	dr.ir. Ronald P. van Rij
Date and place of birth:	17-Sep-1972, Hellevoetsluis, the Netherlands (NL)
Email:	ronald.vanrij@radboudumc.nl
Work address:	Dept. Medical Microbiology, Radboud University Medical Center (Radboudumc) Radboud Insitute for Molecular Life Sciences (RIMLS) P.O. Box 9101 (internal mail 268) 6500 HB Nijmegen the Netherlands
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EDUCATION

Doctorate (*cum laude*)

april 1997-Mar 2002	**University of Amsterdam,** Faculty of Medicine Amsterdam, the Netherlands
Supervisors:	prof. dr. H. Schuitemaker prof. dr. F. Miedema
Title of thesis:	Chemokine receptors in HIV-1 infection and AIDS pathogenesis

BSc and MSc

Sept 1990-Aug 1996	**Wageningen University**, Wageningen, the Netherlands

RESEARCH EXPERIENCE

April 2008 - present	**Radboud University Medical Center (Radboudumc).** **Institute for Molecular Life Sciences (RIMLS)**, Dept of Medical Microbiology, **Associate professor** (Tenured, May 2014-present) **Assistant professor** (Tenured, Aug 2010-April 2014) **Tenure-track fellow** (April 2008-July 2010) Head Section Experimental Virology (June 2012-present)
Dec 2006-Nov 2007,	**Hubrecht Institute** Utrecht, NL Laboratory of prof. dr. R. Plasterk, prof. R. Ketting. **Postdoctoral fellow**
Nov 2002-Oct 2006,	**University of California San Francisco (UCSF),** San Francisco, CA, USA. Dept. of Microbiology and Immunology, Laboratory of prof. dr. R. Andino **Postdoctoral fellow**

April 1997-Sept 2002, **Sanquin Research, and University of Amsterdam**
Dept. of Clinical Viro-Immunology,
Amsterdam, NL
Laboratory of prof. dr. H. Schuitemaker
PhD student, as of April 2002: **postdoctoral scientist**

Oct 1995 – April 1996, **University of California San Francisco (UCSF),**
San Francisco, CA, USA.
Dept. of Microbiology and Immunology,
Laboratory of prof. dr. R. Andino
Postgraduate researcher

TEACHING and MENTORING

Current lab members:

- Finny Varghese (postdoc)
- Pascal Miesen (PhD student)
- Susan Schuster (PhD student)
- Joep Joosten (PhD student)
- Febrina Meutiawati (PhD student)
- Rebecca Halbach (PhD student)
- Bodine Bezemer (PhD student)
- Gijs Overheul (Technician)
- Bas Pennings (Technician)

Alumni:

- Rob Vogels, PhD student Sept 2014-May 2016, now chemistry teacher at highschool.
- Erika Girardi, Postdoc, April 2014-Mar 2016, now postdoc at l'Institut de Biologie Moléculaire et Cellulaire (IBMC) Strasbourg, France.
- Sarah Merkling, PhD student, Dec 2010–Sept 2015, now postdoc at Pasteur Institute, Paris, France.
- Koen van Cleef, Postdoc, April 2009-July 2015, now senior scientist at MSD Animal Health, Boxmeer, NL.
- Walter Bronkhorst, PhD student, Dec 2009-Nov 2014, now postdoc at Institute for Molecular Biology, Mainz, Germany.
- Joël van Mierlo, PhD student, Jan 2009–Sept 2013, now senior researcher, Micreos BV, Wageningen, NL.
- Minh Nguyen, Post-graduate researcher, April 2011-July 2011, now PhD student, Radboudumc, Nijmegen, NL.

Supervision of internships:

- Supervisor of 26 BSc and MSc students from national and international programs.

Teaching (Selection):

- Lecturer *Global Health*.
- Lecturer *RNA Structure and Function*
- Coordinator and lecturer and *Medical microbiology and Virology*
- Lecturer *Core Fundamentals – Cell growth and differentiation*
- Lecturer and co-coordinator *Scientific Skills*
- Lecturer in course *AIDS*

Other activities in education

- Member Educational Management Team (OMT) of MSc program Molecular Mechanism of Disease (MMD). The OMT devises and implements education strategies within the program.
- Member Selection and admission committee of the MSc program 'Molecular mechanisms of diseas.

GRANTS and FELLOWSHIPS (selection)

- Human Frontiers Science Program 2017. Exploring the concept of adaptive immunity in mosquitoes. Collaborative grant M. Bonizzoni (Italy), J. Souza-Neta (Brazil)
- NWO VICI grant 2017. *Small but mighty: endogenous PIWI-associated RNAs in virus-transmitting mosquitoes.*
- European Fund for Regional Development (EFRO) grant, 2017, *Tropinhi, new leads and impact on tropical diseases* (€300.000). Collaborative grant with Protinhi therapeutics, TropIQ Health Science,
- Radboudumc junior researcher (PhD) grant, 2016, *Dissecting virus-host interactions in iPSC-based cell culture models for Zika and Dengue virus* (€240.000)
- ERC Consolidator grant consolidator grant under the European Union's Seventh Framework Programme 2014, *Antiviral Defense in the Vector Mosquito Aedes aegypti: induction and suppression of RNA silencing pathways*

AWARDS

- Radboudumc Principal Investigator premium 2015-2017 in recognition of scientific excellence.
- Radboudumc, Junior Principal Investigator premium 2009-2011 and 2012-2014 in recognition of scientific excellence.
- Kluyver Award 2010 from the Netherlands Society for Microbiology (NVvM) in recognition of his outstanding contribution to the field of microbiology. The prize is awarded to a microbiologist within eight years after obtaining a PhD. Awarded once every three years.
- Distinction "*Cum Laude*" for PhD, March 2002. Cum Laude is the highest distinction awarded in the Netherlands for academic degrees.

REVIEWING and EDITING

- Member of selection committee the Open program of the division Earth and Life Sciences (ALW) of the Netherlands Organization for Scientific Research (NWO) (2016)
- *Ad hoc* reviewer for various scientific journals, including PLoS genetics, PLoS pathogens, mBio, J Clinical Investigations, J Virol and others.
- *Ad hoc* reviewer for various international funding agencies, including Agence Nationale de la Recherche, Croatian Science Foundation, Estonian Research Council– Norwegian-Estonian Research Cooperation Programme, European Research Council (ERC) Consolidator grant, The Leverhulme Trust (UK), Medical Research Council (UK), National Science Centre (Poland), National Science Foundation (USA), Wellcome trust (UK)
- Editor for a book, entitled, 'Antiviral RNAi: Concepts, Methods, and Applications'. in the series 'Methods in Molecular Biology' Humana Press, USA. ISBN: 978-1-61779-036-2.
- Guest Associate Editor PLoS Pathogens
- Reviewing Editor eLife

PUBLICATIONS

1. Halbach R, Junglen S, **Van Rij RP**, Mosquito-specific and mosquito-borne viruses: evolution, infection, and host defense. *Curr Opin Insect Sci*. Under revision

2. Umberto Palatini*, Pascal Miesen*, Rebeca Carballar-Lejarazu, Lino Ometto, Ettore Rizzo, Zhijian Tu, **Van Rij RP**, Bonnizoni M, 2017. Comparative Genomics Shows That Viral Integrations Are Abundant And Express piRNAs In The Arboviral Vectors Aedes aegypti And Aedes albopictus.
Posted on *bioRxiv* DOI 10.1101/128637 (April 19, 2017)

3. Doublet V, Poeschl Y, Gogol-Döring A, Alaux C, Aurori C, Barribeau SM, Bedoya Reina O, Brown MJF, Bull JC, Flenniken ML, Galbraith DA, Genersch E, Grosse I, Holt HL, Hultmark D, Lattorff HMG, Le Conte Y, Manfredini F, McMahon DP, Moritz RFA, Nazzi F, Nowick K, Niño EL, **van Rij RP**, Paxton RJ, Grozinger CM. 2017. Synthesis of Genome-Wide Transcriptomes of Honeybees Reveals Unique and Conserved Molecular Responses to Parasites. *BMC genomics*. 2:207. doi: 10.1186/s12864-017-3597-6.

4. Girardi E, Miesen P, Pennings B, Frangeul L, Saleh MC, **Van Rij RP**, 2017. Histone-derived piRNA biogenesis depends on the ping-pong partners Piwi5 and Ago3 in *Aedes aegypti*. *Nucleic Acids Res*. doi: 10.1093/nar/gkw1368.

5. Martina BEE, Barzon L, Pijlman GP, de la Fuente J, Rizzoli A, Wammes LH, Takken W, **van Rij RP**, Papa A. 2017. Human to human transmission of arthropod-borne pathogens. *Curr Opin Virol.* 22:13-21. DOI: 10.1016/j.coviro.2016.11.005.

6. Miesen P, Joosten J, **Van Rij RP**. 2016. PIWIs go viral: arbovirus piRNAs in vector mosquitoes. *PLoS Pathogens* 12:e1006017. DOI: 10.1371/journal.ppat.1006017

7. Goertz GP, Fros JJ, Miesen P, Vogels CB, Van der Bent ML, Bakony T, Geertsema C, Koenraadt CJ, **Van Rij RP**, Van Oers MM, Pijlman GP. 2016. Non-coding subgenomic flavivirus RNA determines West Nile virus transmission by Culex pipiens mosquitoes. *J Virol* 90:10145-59.

8. van Cleef KW, Overheul GJ, Thomassen M, Marjakangas J, **van Rij RP**. 2016. Mutations in NS4B provide escape of Dengue virus to the antiviral activity of the paracetamol metabolite AM404. *Antimicrob Agents Chemother*. 60(4):2554-7 DOI: 10.1128/AAC.02462-15

9. Miesen P, Ivens A, Buck AH, **Van Rij RP**. 2016. Small RNA profiling in Dengue virus infected mosquito cells uncovers novel miRNAs and viral piRNA-like molecules. *PLoS Negl Trop Dis.* 10:e0004452 DOI: 10.1371/journal.pntd.0004452.

10. Fros JJ, Miesen P, Vogels CBF, Gaibani P, Sambri V, Koenraadt CJM, **Van Rij RP**, Vlak JM, Takken W, Pijlman GP. 2015. Comparative Usutu and West Nile virus transmission potential by local Culex pipiens mosquitoes in north-western Europe. *One Health*. 1:31-36.

11. Merkling SH, Overheul GJ, Van Mierlo JT, Arends D, Gilissen C, **Van Rij RP**. 2015. The heat shock response is required for antiviral immunity in Drosophila. *Scientific Reports* 5:12758. doi: 10.1038/srep12758

12. Miesen P, Girardi E, **van Rij RP**. 2015. Distinct sets of PIWI proteins produce arbovirus and transposon-derived piRNAs in Aedes aegypti mosquitoes. *Nucleic Acids Res,* 43:6545-56. doi: 10.1093/nar/gkv590

13. Merkling SH, **Van Rij RP**. 2015. Analysis of resistance and tolerance to virus infection in Drosophila, *Nature protocols*. 10:1084-1097
doi:10.1038/nprot.2015.071.
Open access version: http://repository.ubn.ru.nl/handle/2066/154166

14. Merkling SH, Bronkhorst AW, Kramer JM, Overheul GJ, Schenck A, **Van Rij RP.** 2015. The epigenetic regulator G9a mediates tolerance to RNA virus infection in Drosophila. *PLoS Pathogens* 11(4):e1004692 DOI 10.1371/journal.ppat.1004692

15. Bronkhorst AW, Van Cleef KWR, Venselaar H, **Van Rij RP**. 2014. A dsRNA-binding protein from a complex DNA virus suppresses the Drosophila RNAi response. *Nucleic Acids Res*, 42:12237-48. doi 10.1093/nar/gku910

16. Schuster S, Zirkel F, Kurth A, van Cleef KW, Drosten C, **van Rij RP***, Junglen S*. 2014. A unique Nodavirus with novel features: Mosinovirus expresses two subgenomic RNAs, a capsid gene of unknown origin, and a suppressor of the antiviral RNAi pathway. *J Virol*, 88:13447-13459. ***Corresponding authors**

17. van Mierlo JT, Overheul GJ, Obadia B, van Cleef KW, Webster CL, Saleh MC, Obbard DJ, **van Rij RP.** 2014. Novel Drosophila viruses encode host-specific suppressors of RNAi. *PLoS Pathogens*, 10: e1004256.

18. van Cleef KW, van Mierlo JT, Miesen P, Overheul GJ, Fros JJ, Schuster S, Marklewitz M, Pijlman GP, Junglen S, and **van Rij RP**. 2014. Mosquito and Drosophila entomobirnaviruses suppress dsRNA and siRNA-induced RNAi. *Nucleic Acids Res*, 42:8732-44. DOI 10.1093/nar/gku528

19. Bronkhorst AW, **Van Rij RP.** The long and short of antiviral defense: Small RNA-based immunity in insects. 2014. *Curr Opin Virol* 7C:19-28. DOI 10.1016/j.coviro.2014.03.010

20. Bronkhorst AW, Miesen P, **van Rij RP**. 2013. Small RNAs tackle large viruses: RNA interference-based antiviral defense against DNA viruses in insects. *FLY* 7(4) 216-223.

21. van Cleef KW, Overheul GJ, Thomassen M, Kaptein SJ, Davidson AD, Jacobs M, Neyts J, van Kuppeveld FJ, and **van Rij RP**, 2013. Identification of a new Dengue virus inhibitor that restricts genomic RNA replication by targeting the viral NS4B protein. *Antiviral Res* 99:165–171. DOI 10.1016/j.antiviral.2013.05.011

22. Libri V*, Miesen P*, **Van Rij RP****, Buck AH**. 2013. Regulation of microRNA biogenesis and turnover by animals and their viruses. *Cell Mol Life Sci*. 70:3525–3544. DOI 10.1007/s00018-012-1257-1. * equal contribution; ****** corresponding authors**

23. Merkling SH and **van Rij RP**. 2013. Beyond RNAi: Antiviral defense strategies in Drosophila and Mosquitoes. *Journal of Insect Physiology*, 59:159-70

24. Bronkhorst AW, van Cleef KW, Vodovar N, Blanc H, Ince IA, Vlak J, Saleh MC, **van Rij RP**. 2012. The DNA virus Invertebrate Iridovirus 6 is a target of the Drosophila RNAi machinery. *Proc Natl Acad Sci U S A*, 109:E3604-13.

Breakthrough paper of the year 2012 NCMLS

25. Feng Q, Hato SV, Langereis MA, Zoll J, Virgen-Slane R, Peisley A, Hur S, Semler BL, **van Rij RP,** van Kuppeveld FJ. 2012. MDA5 detects the double-stranded RNA replicative form in picornavirus-infected cells. *Cell reports*. 2:1187-96.

26. Grimm D, Tamas Dalmay T, and **van Rij RP**. 2012. Everybody wins! Poland hosts thrilling competitions of viruses, RNAi and football teams. *EMBO reports*. 13, 874 – 876.

27. van Mierlo JT, Bronkhorst AW, Overheul GJ, Sadanandan SA, Ekström J-O, Heestermans M, Hultmark D, Antoniewski C, **van Rij RP**. 2012. Convergent Evolution of Argonaute-2 Slicer Antagonism in Two Distinct Insect RNA Viruses. *PLoS Pathogens* 9:e1002872

28. Vodovar N, Bronkhorst AW, van Cleef KW, Miesen P, Blanc H, **van Rij RP***, and Saleh MC*. 2012. Arbovirus-derived piRNAs exhibit a ping-pong signature in mosquito cells. ***corresponding authors**. *PLoS ONE* 7:e30861.

29. van Mierlo JT, van Cleef KW, **van Rij RP**, 2011. Defense and counter-defense in the Drosophila RNAi-based antiviral immune system. *Methods Mol Biol*, 721: 3-22.

30. van Cleef KW, van Mierlo JT, van den Beek M, **van Rij RP**, 2011. Identification of viral suppressors of RNAi using reporter assays in Drosophila S2 cell culture. *Methods Mol Biol*, 721: 201-213.

31. van Mierlo JT, Van Cleef KW, **van Rij RP**, 2010. Small silencing RNAs – piecing together a viral genome. *Cell Host and Microbe* 7: 87-89.

32. **Van Rij RP***, and Berezikov E. 2009. Small RNAs and the control of transposons and viruses in Drosophila. *Trends Microbiol* 17:163-71.
*** Corresponding author**

33. Saleh MC, Tassetto M*, **van Rij RP***, Goic B, Gausson V, Berry B, Jacquier C, Antoniewski C, Andino R. 2009. Antiviral immunity in Drosophila requires systemic RNA interference spread. *Nature* 458: 346-350. **(*equal contribution).**

Faculty of 1000 Biology: Must read (Feb 2009)
Research Highlights - Nature Reviews Genetics (2009, 10: 153-153)
Leading Edge / Immunology Select - Cell (2009, 136: 799-801).

34. **Van Rij RP.** 2008. Virus meets RNAi - Symposium on Antiviral Applications of RNA interference. *EMBO rep* 9: 725-729.

35. **van Rij RP**, Andino R. 2008. Complex interactions of viruses and the RNAi machinery: a driving force in viral evolution. In *Origin and Evolution of Viruses.* E. Domingo, C. Parrish, J.J. Holland, editors., 2nd edition, Elsevier.

36. **Van Rij RP**, Saleh MC, Berry B, Foo C, Houk A, Antoniewski C, and Andino R. 2006. The RNA silencing endonuclease ARGONAUTE 2 mediates specific antiviral immunity in Drosophila melanogaster. *Genes & Dev* 20: 2985-2995.

37. Saleh MC*, **Van Rij RP***, Hekele A, Gillis A, Foley E, O'Farrell PH, and Andino R. 2006. The endocytic pathway mediates cell entry of dsRNA to induce RNAi silencing. *Nature Cell Biology* 8:793-802. **(*equal contribution).**

Faculty of 1000 Biology: Must read (Aug 2006)
Research Highlights - Nature Reviews Mol. Cell. Biol. (2006, 7: 630)
Editor's Choice - Science (2006, 313: 892)
Research Highlights - Nature (2006, 442: 333)

38. **van Rij RP**, and Andino R. 2006. The silent treatment: RNAi as a defense against virus infection in mammals. *Trends Biotechnol* 24:186-193.

39. **Van Rij RP**, and Andino R. 2005. RNAi as an antiviral mechanism and therapeutic approach. In *Molecular pathogenesis of viral infections, Society for General Microbiology Symposia No. 64.* P. Digard, A.A. Nash, and R.E. Randall, editors. Cambridge University Press.

40. Saleh MC*, **Van Rij RP***, and Andino R. 2004. RNA silencing in viral infections: insights from poliovirus. *Virus Res* 102:11-17. **(*equal contribution).**

41. Kloosterboer N, Groeneveld PH, Jansen CA, van der Vorst, TJ, Koning F, Winkel CN, Duits AJ, Miedema F, van Baarle D, **van Rij RP**, et al. 2005. Natural controlled HIV infection:

preserved HIV-specific immunity despite undetectable replication competent virus. *Virology* 339:70-80.

42. Stalmeijer EH*****, **Van Rij RP***, Boeser-Nunnink B, Visser JA, Naarding MA, Schols D, and Schuitemaker H. 2004. In Vivo Evolution of X4 Human Immunodeficiency Virus Type 1 Variants in the Natural Course of Infection Coincides with Decreasing Sensitivity to CXCR4 Antagonists. *J Virol* 78:2722-2728. **(*equal contribution).**

43. **van Rij RP**, Hazenberg MD, van Benthem BH, Otto SA, Prins M, Miedema F, and Schuitemaker H. 2003. Early viral load and CD4+ T cell count, but not percentage of CCR5+ or CXCR4+ CD4+ T cells, are associated with R5-to-X4 HIV type 1 virus evolution. *AIDS Res Hum Retroviruses* 19:389-398.

44. **van Rij RP**, Worobey M, Visser JA, and Schuitemaker H. 2003. Evolution of R5 and X4 human immunodeficiency virus type 1 gag sequences in vivo: evidence for recombination. *Virology* 314:451-459.

45. Sankatsing SU, van Praag RM, **van Rij RP**, Rientsma R, Jurriaans S, Lange JM, Prins JM, and Schuitemaker H. 2003. Dynamics of the pool of infected resting CD4 HLA-DR- T lymphocytes in patients who started a triple class five-drug antiretroviral regimen during primary HIV-1 infection. *Antivir Ther* 8:137-142.

46. Kwa D, **van Rij RP**, Boeser-Nunnink B, Vingerhoed J, and Schuitemaker H. 2003. Association between an interleukin-4 promoter polymorphism and the acquisition of CXCR4 using HIV-1 variants. *AIDS* 17:981-985.

47. Wit FW, **van Rij RP**, Weverling GJ, Lange JM, and Schuitemaker H. 2002. CC chemokine receptor 5 delta32 and CC chemokine receptor 2 64I polymorphisms do not influence the virologic and immunologic response to antiretroviral combination therapy in human immunodeficiency virus type 1-infected patients. *J Infect Dis* 186:1726-1732.

48. **van Rij RP**, Visser JA, van Praag RM, Rientsma R, Prins JM, Lange JM, and Schuitemaker H. 2002. Both R5 and X4 human immunodeficiency virus type 1 variants persist during prolonged therapy with five antiretroviral drugs. *J Virol* 76:3054-3058.

49. **van Rij RP***, van Praag RM*, Prins JM, Rientsma R, Jurriaans S, Lange JM, and Schuitemaker H. 2002. Persistence of viral HLA-DR- CD4 T-cell reservoir during prolonged treatment of HIV-1 infection with a five-drug regimen. *Antivir Ther* 7:37-41. **(*equal contribution).**

50. **van Rij RP**, and Schuitemaker H. 2002. Host genetic factors in the clinical course of HIV-1 infection: chemokines and chemokine receptors. *Community Genet* 5:88-101.

51. Koning FA, **Van Rij RP***, Schuitemaker H. 2002. Biological and Molecular Aspects of HIV-1 Coreceptor Usage. In *HIV Sequence Compendium 2002.* C. Kuiken, B. Foley, E. Freed, B. Hanhn, B. Korber, P.A. Marx, F. McCutchan, J.W. Mellors, and W. S., editors. Los Alamos, NM: Theoretical Biology and Biophysics Group, Los Alamos National Laboratory. 24-42. **(*equal contribution).**

52. Davenport MP, Zaunders JJ, Hazenberg MD, Schuitemaker H., and **van Rij RP.** 2002. Cell turnover and cell tropism in HIV-1 infection. *Trends Microbiol* 10:275-278.

53. **van Rij RP**, Blaak H, Visser JA, Brouwer M, Rientsma R, Broersen S, de Roda Husman AM, and Schuitemaker H. 2000. Differential coreceptor expression allows for independent evolution of non-syncytium-inducing and syncytium-inducing HIV-1. *J Clin Invest* 106:1039-1052.

54. **van Rij RP**, and Schuitemaker H. 1999. The role of HIV-1 biological phenotype and patient genotype in anti-retroviral treatment decisions. *Current Opinion in Anti-infective Investigational Drugs* 1:155-165.

55. **van Rij RP**, Portegies P, Hallaby T, Lange JM, Visser J, Husman AM, van 't Wout AB, and Schuitemaker H. 1999. Reduced prevalence of the CCR5 delta32 heterozygous genotype in human immunodeficiency virus-infected individuals with AIDS dementia complex. *J Infect Dis* 180:854-857.

56. Prins JM, Jurriaans S, van Praag RM, Blaak H, **van Rij R**, Schellekens PT, ten Berge IJ, Yong SL, Fox CH, Roos MT, et al. 1999. Immuno-activation with anti-CD3 and recombinant human IL-2 in HIV-1-infected patients on potent antiretroviral therapy. *AIDS* 13:2405-2410.

57. Meyer L, Magierowska M, Hubert JB, Theodorou I, **van Rij R**, Prins M, de Roda Husman AM, Coutinho R, and Schuitemaker H. 1999. CC-chemokine receptor variants, SDF-1 polymorphism, and disease progression in 720 HIV-infected patients. SEROCO Cohort. Amsterdam Cohort Studies on AIDS. *AIDS* 13:624-626.

58. de Roda Husman AM, **van Rij RP**, Blaak H, Broersen S, and Schuitemaker H. 1999. Adaptation to promiscuous usage of chemokine receptors is not a prerequisite for human immunodeficiency virus type 1 disease progression. *J Infect Dis* 180:1106-1115.

59. **van Rij RP**, Broersen S, Goudsmit J, Coutinho RA, and Schuitemaker H. 1998. The role of a stromal cell-derived factor-1 chemokine gene variant in the clinical course of HIV-1 infection. *AIDS* 12:F85-90.

60. **van Rij RP**, de Roda Husman AM, Brouwer M, Goudsmit J, Coutinho RA, and Schuitemaker H. 1998. Role of CCR2 genotype in the clinical course of syncytium-inducing (SI) or non-SI human immunodeficiency virus type 1 infection and in the time to conversion to SI virus variants. *J Infect Dis* 178:1806-1811.

61. Tang S, **van Rij RP**, Silvera D, and Andino R. 1997. Toward a poliovirus-based simian immunodeficiency virus vaccine: correlation between genetic stability and immunogenicity. *J Virol* 71:7841-7850.