

Sebastiaan Bol, PhD

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Professional experience

- 2016 – present Founder & senior research scientist – Cowboy Cat Ranch, Mico, TX
- 2016 – present Senior research scientist and laboratory manager – Bunnik laboratory, department of Microbiology Immunology & Molecular Genetics, University of Texas Health Science Center, San Antonio, TX
- 2014 – 2016 Laboratory assistant – Rolshausen laboratory, department of Botany & Plant Sciences, University of California Riverside, Riverside, CA
- 2011 – 2013 Postdoctoral fellow – Le Roch laboratory, department of Cell Biology & Neuroscience, University of California Riverside, Riverside, CA

Education

- 2007 – 2011 PhD – Schuitemaker laboratory, department of Experimental Immunology, University of Amsterdam, the Netherlands, “Host genetic effects on HIV-1 replication in macrophages”
- 2003 – 2007 MSc – *cum laude*; Medical Biotechnology, Wageningen University & Research, the Netherlands
- 2002 Erasmus Program International Internship, Department of Clinical Nutrition, University of Kuopio, Finland
- 1999 – 2003 BSc – *cum laude*; Nutrition & Dietetics, University of Amsterdam, the Netherlands
- 1994 – 1997 Associate Degree, Economics & Business Administration, Oosterborch College, Enschede, the Netherlands

Scientific publications

18. **Bol S**, Scaffidi A, Bunnik EM, Flematti GR. Behavioral differences among domestic cats in the response to cat-attracting plants and their volatile compounds reveal a potential distinct mechanism of action for actinidine. (*Under review at BMC Biology since March 11, 2022*)

17. Gonzales SJ, Clarke K, Batugedara G, Garza R, Braddom AE, Reyes RA, Ssewanyana I, Garrison KC, Ippolito G, Greenhouse B, **Bol S**, Bunnik EM. A molecular analysis of memory B cell and antibody responses against *Plasmodium falciparum* merozoite surface protein 1 in children and adults from Uganda. **Frontiers in Immunology** (*in print*)
16. Pouzoulet J, Yelle DJ, Theodory B, Nothnagel EA, **Bol S**, Rolshausen PE. Biochemical and Histological Insights into the Interaction Between the Canker Pathogen *Neofusicoccum parvum* and *Prunus dulcis*. **Phytopathology** (2022) 112(2):345-354
15. Reyes RA, Clarke K, Gonzales SJ, Cantwell AM, Garza R, Catano G, Tragus R, Patterson T, **Bol S**, Bunnik EM. SARS-CoV-2 spike-specific memory B cells express higher levels of T-bet and FcRL5 after non-severe COVID-19 as compared to severe disease. **PLOS ONE** (2021) 16(12): e0261656
14. Gonzales SJ, **Bol S**, Braddom AE, Sullivan RT, Reyes RA, Ssewanyana I, Eggers E, Greenhouse B, Bunnik EM. Longitudinal analysis of FcRL5 expression and clonal relationships in classical and atypical memory B cells following malaria. **Malaria Journal** (2021) 20(1): 435
13. Braddom AE, **Bol S**, Gonzales SJ, Reyes RA, Musinguzi K, Nankya F, Ssewanyana I, Greenhouse B, Bunnik EM. B cell receptor repertoire analysis in malaria-naive and malaria-experienced individuals reveals unique characteristics of atypical memory B cells. **mSphere** (2021) 6(5):e00726-21
12. Gonzales SJ, Reyes RA, Braddom AE, Batugedara G, **Bol S**, Bunnik EM. Naturally acquired humoral immunity against *Plasmodium falciparum* malaria. **Frontiers in Immunology** (2020) 11:594653 (*review*)
11. Braddom AE, Batugedara G, **Bol S**, Bunnik EM. Potential functions of atypical memory B cells in *Plasmodium*-exposed individuals. **International Journal for Parasitology** (2020) 50(13):1033-1042 (*review*)
10. Pouzoulet J, Rolshausen PE, Schiavon M, **Bol S**, Travadon R, Lawrence D, Baumgartner K, Ashworth VE, Comont G, Corio-Costet MF, Pierron RJG, Besson X, Jacques A, A method to detect and quantify *Eutypa lata* and *Diplodia seriata/intermedia* complex DNA in grapevine pruning wounds, **Plant Disease** (2017) 101(8):1470-1480
9. **Bol S**, Caspers J, Buckingham L, Anderson-Shelton GD, Ridgway C, Buffington CAT, Schulz S, Bunnik EM, Responsiveness of cats (*Felidae*) to silver vine (*Actinidia polygama*), Tatarian honeysuckle (*Lonicera tatarica*), valerian (*Valeriana officinalis*) and catnip (*Nepeta cataria*), **BMC Veterinary Research** (2017) 13(1):70 [45k accesses as of May 2022; Altmetric Attention Score of 487, ranking the paper **top 1%**]
8. **Bol S**, Bunnik EM, Lysine supplementation is not effective for the prevention or treatment of feline herpesvirus 1 infection in cats: a systematic review, **BMC Veterinary Research** (2015) 11:284 [40k accesses as of May 2022; Altmetric Attention Score of 50, ranking the paper **top 1%**]

7. Bunnik EM, Ay F, Varoquaux N, **Bol SM**, Prudhomme J, Vert JP, Noble WS, Le Roch KG, Three-dimensional modelling of the *P. falciparum* genome during the erythrocytic cycle reveals a strong connection between genome architecture and gene expression, **Genome Research (2014)** 24:974-988
6. **Bol SM**, Booiman T, Van Manen D, Bunnik EM, Van Sighem AI, Sieberer M, Boeser-Nunnink B, De Wolf F, Schuitemaker H, Portegies P, Koostra NA, Van 't Wout AB, Single nucleotide polymorphism in gene encoding transcription factor Prep1 is associated with HIV-1-associated dementia, **PLoS ONE (2012)** 7(2):e30990
5. **Bol SM**, Booiman T, Bunnik EM, Moerland P, Van Dort K, Straus III, J, Sieberer M, Schuitemaker H, Kootstra NA, Van 't Wout AB, Polymorphism in HIV-1 dependency factor PDE8A affects gene expression and HIV-1 replication in primary macrophages, **Virology (2011)** 420(1):32-42
4. Van Manen D, Delaneau O, Kootstra NA, Boeser-Nunnink BD, Limou S, **Bol SM**, Burger JA, Zwinderman AH, Moerland PD, Van 't Slot R, Zagury JF, Van 't Wout AB, Schuitemaker H, Genome-wide association scan in HIV-1-infected individuals identifying variants influencing disease course, **PLoS ONE (2011)** 6(7):e22208
3. **Bol SM**, Moerland P, Limou S, Van Remmerden Y, Coulonges C, Van Manen D, Herbeck JT, Fellay J, Van 't Slot R, Schuitemaker H, Van 't Wout AB, Genome-wide association study identifies single nucleotide polymorphism in DYRK1A associated with replication of HIV-1 in monocyte-derived macrophages, **PLoS ONE (2011)** 6(2):e17190
2. **Bol SM**, Cobos-Jiménez V, Kootstra NA, Van 't Wout AB, HIV-1 and the macrophage, **Future Virology (2011)** 6(2):187-208
1. **Bol SM**, Van Remmerden Y, Sietzema JG, Kootstra NA, Schuitemaker H, Van 't Wout AB, Donor variation in in vitro HIV-1 susceptibility of monocyte-derived macrophages, **Virology (2009)** 390(2):205-11

Other publications

2. **Sebastiaan Bol** & Denise van Lent, "Het stressverlagende effect van verticale ruimte" (The stress-reducing effects of vertical space), **Voor de Poes Magazine** (Dutch cat magazine), #6 April-June 2018
1. **Sebastiaan Bol** & Nathalie Leeuwis, "Onbekend maar zeker niet onbemind; alternatieven voor kattenkruid" (Unknown, but certainly not unloved; alternatives for catnip), **Voor de Poes Magazine** (Dutch cat magazine), #4 October-December 2017

Peer-review

BMC Biology, 2021, A gossypol derivative effectively protects against Zika and dengue virus infection without toxicity

Presentations

- 04/09/2022 Viva Science SA, San Antonio TX – “How plants make cats happy” (poster)
- 02/16/2010 Conference on retroviruses and opportunistic infections (CROI), San Francisco, CA – Discovery of common genetic variants associated with *in vitro* HIV-1 replication in monocyte-derived macrophages” (poster)
- 05/18/2009 Retroviruses, Cold Spring Harbor, NY – “Donor variation in *in vitro* HIV-1 susceptibility of monocytes-derived macrophages” (poster)
- 04/19/2009 International workshop on HIV, cells of macrophage/dendritic lineage and other reservoirs, Colombaro di Corte Franca, Italy – “Donor variation in *in vitro* HIV-1 susceptibility of monocytes-derived macrophages” (poster)

Honors & awards

- 2022 WFAB (Weaving the Future of Animal Behavior) Travel Award for the 2022 Animal Behavior Society conference in San José, Costa Rica
- 2017 My Green Lab – Green Labs Champion (June)
- 2016 Veterinary Record Evidence Award (shortlisted)
- 2016 Eco-Leader in the Rolshausen laboratory (achievement: first platinum certified green laboratory at the University of California Riverside)
- 2010 CROI Young Investigator Award
- 2007 MSc degree received *cum laude*
- 2004 Novartis Dietetics Award (EUR 2,500) for best Nutrition & Dietetics thesis in the Netherlands
- 2003 BSc degree received *cum laude*
- 2002 Erasmus Mundus scholarship

Consulting

- 2018 – 2019 Consulted for Hartz on the development of Cattraction toys with silver vine. No compensation was received.

Mentor responsibilities

- 2022 Nirel Ayertey (high school student)
- 2021 – present Rolando Garza (MD/PhD student)
- 2021 Moawiz Saeed (rotating MD/PhD student)
- 2020 – 2022 Katie Clarke (master student)

2019	Cambrey Gallardo (summer student)
2018 – present	Ashley Braddom (PhD student)
2018 – present	Raphael Reyes (PhD student)
2018 – 2019	Melissa Nuñez (master student)
2018	Raksha Parthasarathy (rotating PhD student)
2018	Mawjuda Abdulrashid (master student)
2017 – 2021	Jake Gonzales (PhD student)
2017 – 2018	Bayan Fallatah (master student)
2017	Hannah Hall (summer student)
2014 – 2016	Raphael Reyes (undergraduate student)
2014 – 2016	Vanessa Escolero (undergraduate student)
2011 – 2013	Manuel Torres (undergraduate student)
2010	Arian Malekzadeh (undergraduate student)
2009	Dieuwke de Haan (undergraduate student)
2010 – 2011	Margit Sieberer (research technician)
2007 – 2010	Yvonne van Remmerden (research technician)
2007	Jantine Sietzema (research technician)