



Dr. Beatrice O. Ondondo (DPhil, Oxford University)

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Expertise:

Cellular immunology; Mucosal Immunology; Clinical Immunology;
Vaccine Design, Development, and Testing (Preclinical and Clinical);
HIV/AIDS Immunology and Vaccinology; Molecular Biology;
Virology; Cancer Immunology and Immunotherapy; Cancer Biology;
Immune Regulation; Animal Research Models; Toxicity Testing.

Educational Profile:		
Academic Institution	Degree awarded	Dates
Oxford University, UK	PhD (DPhil) in Clinical Immunology (Cellular Immunology and vaccinology)	2007
Kenyatta University, Kenya	MSc, Chemistry & Molecular Biology	1998
Kenyatta University, Kenya	BSc, Chemistry & Biochemistry (First class Honours)	1995

Professional Experience:		
Employer	Job title	Dates
University of Southampton, Southampton, UK	Research Fellow (Development of NK-cell based cancer vaccines)	Nov 2015 – Jan 2016
Oxford University, Department of Clinical Medicine, Oxford, UK	Senior Immunologist (HIV Vaccine Development)	July 2012 – Oct 2015
School of Medicine, Cardiff University, Cardiff, UK	Research Associate (Cancer immunotherapy)	Aug 2009 - June 2012
School of Medicine, Bristol University, Bristol, UK	Research Associate (Cancer immunotherapy)	July 2007 - July 2009
School of public health, University of Washington, Seattle, USA	Visiting Research Scholar	January - March 2001
Faculty of Medicine, Nairobi University, Kenya	Laboratory Scientist (Kenya AIDS Control Projects)	Mar 2000 - Sept 2003
International Livestock Research Institute (ILRI), Nairobi, Kenya	Senior Research Technologist	Nov 1998 - Feb 2000

Invited Guest Lectures:

Nov 30th, 2014: Invited speaker, 9th FAIS Immunology conference, Nairobi, Kenya

April 16th, 2008: Invited guest speaker, University of Rhode Island, Providence, RI, USA

April 12th, 2007: Invited guest speaker, University of Montreal (CHUM), Montreal, Canada

March 7th, 2007: Invited guest speaker, University of Birmingham, UK

Membership of Professional and Governing bodies:

2004: Member of the BSI (British Society of Immunology)

2013: Review editor of the Journal of Frontiers in Immunology (HIV/AIDS specialty)

2014: Review editor of AIMS Press Public Health Journal

2014: Member of Congress, University of Oxford

Awards, Prizes and Scholarships

Date	Award/prize/scholarship
June 2013:	Young Investigators Award: Barcelona, Spain. Expenses plus a US \$1000 personal award
Oct 2011:	BSI travel award: Liverpool, UK
Mar 2007:	Bill & Melinda Gates Foundation Global Health Travel Award: BC, Canada
Nov 2006:	Institute of Human Virology (IHV) Travel scholarship: Baltimore, MD, USA
Jun 2006:	NIH International Travel Grant: Santorini, Greece
May 2006:	NFID International Travel Grant: Baltimore, MD, USA
Apr 2006:	Bill & Melinda Gates Foundation Global Health Travel Award: Colorado, USA.
Mar 2006:	WHO Travel Grant: Dakar, Senegal
Jul 2003:	ORS (Overseas Research Studentship) Award: Universities UK, University of Oxford
Jun 2003:	International AIDS vaccine Initiative (IAVI) award for a DPhil at University of Oxford
May 2002:	Developing Solutions Scholarship Competition Award: University of Nottingham, UK
Sept 2000:	Forgarty International Center and IARTP award: University of Washington, Seattle USA
Jun 1996:	Graduate Research Fellowship: International Livestock Research Institute, Nairobi, Kenya
Sept 1995:	Academic merit award (MSc Scholarship): Kenyatta University, Nairobi, Kenya

List of publications:

1. Wee, E., **Ondondo B.**, Berglund, P., Archer, J., McMichael, A., Baltimore, D., Meulen, JT and Hanke, T. HIV-1 Conserved Mosaics Delivered by Regimens with Integration-deficient, DC-targeting Lentivirus Induce Robust T Cells. *Mol Ther*, 2016: doi: [10.1016/j.ymthe.2016.12.004](https://doi.org/10.1016/j.ymthe.2016.12.004).
2. **Ondondo B.**, Abdul-Jawad, S., Roshorm, Y., Bridgeman, A. and Hanke, T. Vector Delivery-Dependant Effect of Human Tissue Plasminogen Activator Signal Peptide on Vaccine Induction of T Cells. *J HIV AIDS* 2(4), 2016: doi: <http://dx.doi.org/10.16966/2380-5536.130>
3. Gaudensia Mutua, G., Farah, B., Langat, R., Indangasi, J., Ogola, S., Onsembe, B., T Kopycinski, J., Hayes, P., Borthwick, N., Ashraf, A., Dally, L., Barin, B., Tillander, A., Gilmour, J., De Bont, J., Crook, A., Hannaman, D., Cox, J., Anzala, O., Fast, P., Reilly, M., Chinyenze, K., Jaoko, W., Hanke, T., **the HIV-CORE 004 study group**. Broad HIV-1 inhibition in vitro by vaccine-elicited CD8+ T cells in African adults. *Mol Ther Methods Clin Dev*. 2016. doi: [10.1038/mtm.2016.61](https://doi.org/10.1038/mtm.2016.61). Pubmed PMID: 27617268.
4. **Ondondo, B.**, Murakoshi, H., Clutton, G., Abdul-Jawad, S., Gatanaga, H., Oka, S., McMichael, A., Takiguchi, M., Korber, B. and Hanke, T. A novel conserved-region T-cell mosaic vaccine with very high global coverage of HIV-1 variants is recognized by protective responses in chronic untreated infection. *Mol Ther*, 2015. doi: [10.1038/mt.2016.3](https://doi.org/10.1038/mt.2016.3). PubMed PMID: 26743582.
5. Sultan Abdul-Jawad, S., **Ondondo, B.**, van Hateren, A., Gardner, A., Elliott, T., Korber, B and Hanke, T. Increased valency of conserved-mosaic vaccines enhances the breadth and depth of epitope recognition. *Mol Ther*, 2015. doi: [10.1038/mt.2015.210](https://doi.org/10.1038/mt.2015.210). PubMed PMID: 26581160.
6. Ternette, N., Block, P., Sánchez, A., Borthwick, N., Pappalardo, E., Abdul-Jawad, S., **Ondondo, B.**, Charles, P., Dorrell, L., Kessler, B. and Hanke, T. Early kinetics of HLA class I-associated peptidome of MVA.HIVconsv-infected cells. *J Virol*. 2015. doi: [10.1128/JVI.03627-14](https://doi.org/10.1128/JVI.03627-14). PubMed PMID: 25810538.
7. **Ondondo B**, Morgan A, Williams NA, Faulkner L, Morgan DJ. The B subunit of E. coli enterotoxin helps control the in vivo growth of solid tumors expressing the Epstein-Barr virus latent membrane protein 2A. *Cancer Medicine*: 2015. doi: [10.1002/cam4.380](https://doi.org/10.1002/cam4.380). PubMed PMID: 25641882.
8. **Ondondo B.**, Colbeck E, Jones E, Smart K, Lauder S, Hindley J, Godkin A, Moser B, Ager A, Gallimore G. A Distinct Chemokine Axis Does not Account for Enrichment of Foxp3+ CD4+ T cells in Carcinogen-Induced Fibrosarcomas. *Immunology*: 2014. doi: [10.1111/imm.12430](https://doi.org/10.1111/imm.12430). PubMed PMID: 25495686.
9. **Ondondo B**, Abdul-Jawad S, Bridgeman A, Hanke T. Characterization of T-cell responses to conserved regions of the HIV-1 proteome in the BALB/c mice. *Clinical and vaccine immunology : CVI*. 2014. doi: [10.1128/CVI.00587-14](https://doi.org/10.1128/CVI.00587-14). PubMed PMID: 25230940.
10. **Ondondo B**. The influence of delivery vectors on HIV vaccine efficacy. *Frontiers in microbiology*. 2014;5:439. doi: [10.3389/fmicb.2014.00439](https://doi.org/10.3389/fmicb.2014.00439). PubMed PMID: 25202303; PubMed Central PMCID: PMC4141443.
11. Njuguna IN, Ambler G, Reilly M, **Ondondo B**, Kanyugo M, Lohman-Payne B, Gichuhi C, Borthwick N, Black A, Mehedi SR, Sun J, Maleche-Obimbo E, Chohan B, John-Stewart GC, Jaoko W, Hanke T. PedVacc 002: A phase I/II randomized clinical trial of MVA.HIVA vaccine administered to infants born to human immunodeficiency virus type 1-positive mothers in Nairobi. *Vaccine*. 2014. doi: [10.1016/j.vaccine.2014.08.034](https://doi.org/10.1016/j.vaccine.2014.08.034). PubMed PMID: 25173484.

12. Chanzu N, **Ondondo B**. Induction of Potent and Long-Lived Antibody and Cellular Immune Responses in the Genitoretal Mucosa Could be the Critical Determinant of HIV Vaccine Efficacy. *Frontiers in immunology*. 2014;5:202. doi: 10.3389/fimmu.2014.00202. PubMed PMID: 24847327; PubMed Central PMCID: PMC4021115.
13. **Ondondo B**. Fallen angels or risen apes? A tale of the intricate complexities of imbalanced immune responses in the pathogenesis and progression of immune-mediated and viral cancers. *Frontiers in immunology*. 2014;5:90. doi: 10.3389/fimmu.2014.00090. PubMed PMID: 24639678; PubMed Central PMCID: PMC3944202.
14. Borthwick N*, Ahmed T*, **Ondondo B***, Hayes P, Rose A, Ebrahimsa U, Hayton EJ, Black A, Bridgeman A, Rosario M, Hill AV, Berrie E, Moyle S, Frahm N, Cox J, Colloca S, Nicosia A, Gilmour J, McMichael AJ, Dorrell L, Hanke T. Vaccine-elicited human T cells recognizing conserved protein regions inhibit HIV-1. *Molecular therapy : the journal of the American Society of Gene Therapy*. 2014;22(2):464-75. doi: 10.1038/mt.2013.248. PubMed PMID: 24166483; PubMed Central PMCID: PMC3911893. (***Joint first authors**).
15. **Ondondo B**, Jones E, Hindley J, Cutting S, Smart K, Bridgeman H, Matthews KK, Ladell K, Price DA, Jackson DG, Godkin A, Ager A, Gallimore A. Progression of carcinogen-induced fibrosarcomas is associated with the accumulation of naive CD4+ T cells via blood vessels and lymphatics. *International journal of cancer Journal international du cancer*. 2014;134(9):2156-67. doi: 10.1002/ijc.28556. PubMed PMID: 24142504; PubMed Central PMCID: PMC4114538.
16. **Ondondo B**, Jones E, Godkin A, Gallimore A. Home sweet home: the tumor microenvironment as a haven for regulatory T cells. *Frontiers in immunology*. 2013;4:197. doi: 10.3389/fimmu.2013.00197. PubMed PMID: 23874342; PubMed Central PMCID: PMC3712544.
17. Lauder SN, Jones E, Smart K, Bloom A, Williams AS, Hindley JP, **Ondondo B**, Taylor PR, Clement M, Fielding C, Godkin AJ, Jones SA, Gallimore AM. Interleukin-6 limits influenza-induced inflammation and protects against fatal lung pathology. *European journal of immunology*. 2013;43(10):2613-25. doi: 10.1002/eji.201243018. PubMed PMID: 23857287; PubMed Central PMCID: PMC3886386.
18. **Ondondo B**, Brennan C, Nicosia A, Crome SJ, Hanke T. Absence of systemic toxicity changes following intramuscular administration of novel pSG2.HIVconsv DNA, ChAdV63.HIVconsv and MVA.HIVconsv vaccines to BALB/c mice. *Vaccine*. 2013;31(47):5594-601. doi: 10.1016/j.vaccine.2013.06.068. PubMed PMID: 23831324; PubMed Central PMCID: PMC3898262.
19. Hindley JP, Jones E, Smart K, Bridgeman H, Lauder SN, **Ondondo B**, Cutting S, Ladell K, Wynn KK, Withers D, Price DA, Ager A, Godkin AJ, Gallimore AM. T-cell trafficking facilitated by high endothelial venules is required for tumor control after regulatory T-cell depletion. *Cancer research*. 2012;72(21):5473-82. doi: 10.1158/0008-5472.CAN-12-1912. PubMed PMID: 22962270; PubMed Central PMCID: PMC3491872.
20. **Ondondo B**, Brunham RC, Harrison WG, Kinyari T, Sheth PM, Mugo NR, Cohen CR. Frequency and magnitude of *Chlamydia trachomatis* elementary body- and heat shock protein 60-stimulated interferon gamma responses in

peripheral blood mononuclear cells and endometrial biopsy samples from women with high exposure to infection. *The Journal of infectious diseases*. 2009;199(12):1771-9. doi: 10.1086/599095. PubMed PMID: 19419333.

21. **Ondondo B**, Rowland-Jones SL, Dorrell L, Peterson K, Cotten M, Whittle H, Jaye A. Comprehensive analysis of HIV Gag-specific IFN-gamma response in HIV-1- and HIV-2-infected asymptomatic patients from a clinical cohort in The Gambia. *European journal of immunology*. 2008;38(12):3549-60. doi: 10.1002/eji.200838759. PubMed PMID: 19016530.
22. Yang H, Dong T, Turnbull E, Ranasinghe S, **Ondondo B**, Goonetilleke N, Winstone N, di Gleria K, Bowness P, Conlon C, Borrow P, Hanke T, McMichael A, Dorrell L. Broad TCR usage in functional HIV-1-specific CD8+ T cell expansions driven by vaccination during highly active antiretroviral therapy. *Journal of immunology*. 2007;179(1):597-606. PubMed PMID: 17579081.
23. **Ondondo B**, Yang H, Dong T, di Gleria K, Suttill A, Conlon C, Brown D, Williams P, Rowland-Jones SL, Hanke T, McMichael AJ, Dorrell L. Immunisation with recombinant modified vaccinia virus Ankara expressing HIV-1 gag in HIV-1-infected subjects stimulates broad functional CD4+ T cell responses. *European journal of immunology*. 2006;36(10):2585-94. doi: 10.1002/eji.200636508. PubMed PMID: 17013989.
24. Dorrell L, Yang H, **Ondondo B**, Dong T, di Gleria K, Suttill A, Conlon C, Brown D, Williams P, Bowness P, Goonetilleke N, Rostron T, Rowland-Jones S, Hanke T, McMichael A. Expansion and diversification of virus-specific T cells following immunization of human immunodeficiency virus type 1 (HIV-1)-infected individuals with a recombinant modified vaccinia virus Ankara/HIV-1 Gag vaccine. *Journal of virology*. 2006;80(10):4705-16. doi: 10.1128/JVI.80.10.4705-4716.2006. PubMed PMID: 16641264; PubMed Central PMCID: PMC1472080.
25. Sutherland R, Yang H, Scriba TJ, **Ondondo B**, Robinson N, Conlon C, Suttill A, McShane H, Fidler S, McMichael A, Dorrell L. Impaired IFN-gamma-secreting capacity in mycobacterial antigen-specific CD4 T cells during chronic HIV-1 infection despite long-term HAART. *Aids*. 2006;20(6):821-9. doi: 10.1097/01.aids.0000218545.31716.a4. PubMed PMID: 16549965.
26. **Ondondo B**, H. Yang, T. Dong, K. de Gleria, A. Suttill, C. Conlon, D. Brown, P. Williams, P. Bowness, S. Rowland-Jones, T. Hanke, A. McMichael and L. Dorrell. "Detection of broad functional gag-specific CD4+ T cell responses in HIV-1-infected subjects following therapeutic immunization with rMVA expressing an HIV-1 gag immunogen." *Retrovirology* 2006, 3(Suppl 1):S36 doi:10.1186/1742-4690-3-S1-S36.
27. Cohen CR, Koochesfahani KM, Meier AS, Shen C, Karunakaran K, **Ondondo B**, Kinyari T, Mugo NR, Nguti R, Brunham RC. Immunoepidemiologic profile of Chlamydia trachomatis infection: importance of heat-shock protein 60 and interferon- gamma. *The Journal of infectious diseases*. 2005;192(4):591-9. doi: 10.1086/432070. PubMed PMID: 16028127.