***Curriculum Vitae***

**Name and Current address:**

**Assan Jaye *DVM, PhD, FAAS, F-TWAS* Professor of Global Health Education and Researcher Leadership, London School of Hygiene and Tropical**

**Medicine (LSHTM)**

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**Date of Birth:** 24thSeptember 1957

**Nationality:** Gambian

**Marital Status:** Married

**Education/Qualifications:**

1981-1982 Ahmadu Bello University, Nigeria **Higher Diploma Animal Health**

1983-1988 Ahmadu Bello University, Nigeria **Doctor of Veterinary Medicine (DVM)**

1989-1993Brunel University, UK **Doctor of Philosophy (PhD)**

**Undergraduate Academic Prizes/Awards:**

1. **Course Prize:** Best Higher Diploma student in Animal Health

and Husbandry, 1982

1. **Special Prize:** Prize for best Higher Diploma Project, 1982
2. **Dean’s Prize:** Donated by Ahmadu Bello University for best all

round student in the Faculty of Veterinary Medicine, 1987

1. **N.T.C Prize:** Best student in DVM III (third year); best grades in the

courses taught by the Faculty of Agriculture, 1987

1. **Embechem (May & Baker)** Best graduating student in Veterinary Medicine, 1988

**Prize:**

1. **Pfizer Prize:** Best student in the final year in the Faculty

of Veterinary Medicine, 1988

1. **Nigerian Veterinary** Best graduate in Clinics, 1988

**Association (NVMA) Prize:**

**Past Employment:**

**Department of Livestock Services, The Gambia**:

1977-1983 Animal Health Officer

June-October 1993 Principal Veterinary Officer

**Present Employment:**

**Medical Research Council Unit, The Gambia**:

1993- Senior Scientific Officer and post-doctoral fellowship

(funded by Rockefeller Foundation)

1998– Scientist/Immunologist in charge of HIV and Measles Immunology,

Viral Diseases Programme

 August 2008–January 2011 Interim Head, Viral Diseases Programme

 January 2011 to March 2016 Senior Scientist and Head of HIV Research, West Africa Collaboration,

seconded to Laboratory of Bacteriology-Virology, Cheikh Anta Diop University, Dakar, Senegal.

March 2016 to date Head and Senior Manager of Research Training and Career Development, MRC, The Gambia at LSHTM

January 2022 Professor of Global Health Education and Researcher Leadership, LSHTM

**International Fellow:**

1. Elected Fellow of the African Academy of Sciences – November 2015 - **FAAS**
2. Elected Fellow of UNESCO World Academy of Sciences – January 2022- **F-TWAS**

**Personal Profile:**

***Post-graduate training (1989-93):*** I graduated as a Veterinary Doctor in 1988 from Ahmadu Bello University in Nigeria. Following a stimulating but short period of research work in my final clinical year, where I identified a biochemical marker of susceptibility to cattle trypanosomiasis (see publication no. 3), I opted for a career in Veterinary/Medical Research.

***PhD***: Immunological and Molecular Characterisation of *Trypanosoma congolense* antigen: Identification of cysteine protease precursor that was implicated in modulation of disease during infection and diagnosis.

Research at the International Livestock Research Institute in Kenya and at Brunel University (UK) from 1989-93.

Techniques: hybridoma technology, ELISA assay, techniques of gene cloning in a phage library, PCR, sequencing and cDNA blot analysis.

Training course on molecular biology and immunology of parasitism at the Marine Biological Laboratory at Woodshole, Massachusetts, USA (June to August 1992)

***Post-doctoral training fellowship (1993-98):*** MRC Unit, The Gambia.

*Rockefeller Research Fellow:* Research on immunology of measles infection. In spite of the formidable difficulties of inducing Cytotoxic T Cell Responses to measles, I succeeded in developing a method to measure these responses to major measles proteins in immune individuals and in measles infected patients. I demonstrated both class I and class II-restricted CTL to major measles gene products and showed the role of CTL in recovery from infection (see publications 4-8). Because of the tools we developed to measure responses, we built on these studies and carried out a phase I and II measles vaccine trials to test and compare a two-dose schedule of early 4 month vaccination using higher titre E-Z vaccine and standard Swartz at 9 months (see publication 60).

During the course of the Rockefeller fellowship I received the following training at the MRC Human Immunology laboratory, Institute of Molecular Medicine, Oxford University (led by Professor Andrew McMichael):

a) HLA typing by serological methods and in the identification of potential peptide motifs for CTL, which are based on anchor residues, which bind to MHC class I molecule. Peptides were synthesised and analysed by assembly assay using T2 cells transfected with different MHC alleles (1994).

b) Comprehensive molecular HLA typing based on the specific nucleotide sequence PCR method for simultaneous detection of HLA class I and class II alleles (1996).

c) Determination of T cell receptor usage in infection by Flow cytometry analysis and molecular characterisation of variable Vβ chains of T cells (1997).

***Research scientist (1998-to date):*** I became the head of the HIV immunology projects whilst working on other viral infections. I pursued studies to understand the underlying immunological mechanisms responsible for long-term non-progression in HIV-2 infected individuals. I worked on comprehensive analysis of CD4+ T helper cells, CD8+ CTL and innate NK cell functions to determine quantitative and qualitative functional attributes and immune correlates of HIV-2 protection (several of the publications). During the start of my CTL work, I set up the molecular HLA typing laboratory in 1998 which supported the line of research we undertook and included genetic studies such as the influence of HLA and non-HLA genetic polymorphisms in HIV-2 infection.

The immunology work also include studies of host-mediated immunosuppressive mechanisms and immune dysfunction in HIV-2 and HIV-1 infections. I supervised PhD students who worked on the roles of T regulatory cells and immune activation in HIV-1 pathogenesis, NK innate immune responses in HIV-2 infection and the kinetics of T cell proliferation and replacement in HIV infections respectively (publications 23, 62, 65, 70). I also supervised 3 MPhil students successfully, who worked on host genetic polymorphisms in a community HIV-2 cohort, Anaemia in HIV-2 infections and immunity of TB in HIV-TB co-infection respectively.

I mentored two senior post-doctoral fellows under the sub-regional South-South collaborative HIV platform I created with study focus on immunological assessment of correlates of HIV non progression.

***Interim Head of Viral Diseases Programme (August 2008-to 2011):*** I was responsible for coordinating and directing the research work on HIV and HIV clinical studies, hepatitis B and its intervention, and the Infant Immunology portfolio which covered measles, EPI vaccine responses, their interaction with infections and novel vaccine trials. I managed the spending budget of the program and was responsible for all leadership decisions to implement the strategic research operation and training for the program.

***Leadership role:*** During the period as Interim Head, I played a critical role in the development of the research aspect of a Business Plan that ushered MRC in the transition from disease-based programmes to Research Themes. As a member of the Leadership Board (2008-2011) I was able to progress the change management agenda, partner in implementing the new research plan and influence key stakeholders including the Gambia Government in terms of understanding and accepting the Unit’s new strategic direction.

***Member of MRC Leadership Board:*** Reappointed in January 2013 to-date.

***Visiting Senior Scientist and Coordinator of the West African Research Collaboration –Cheikh Anta Diop University (LBV/UCAD), Senegal:*** In 2011, I initiated the West African Research Collaboration and Network in readiness to migrate the HIV research into collaborating institutions in West Africa. I was successful in strengthening the MRC joint research initiative with the Laboratory of Bacteriology and Virology (LBV) of Cheikh Anta Diop University (UCAD), Senegal and the Bandim Health Project, Guinea Bissau. To progress this agenda, I gained funding from the Canadian Global Health Research Initiative for the creation of a West Africa HIV network; this award enabled us to strengthen capacity for research, conduct clinical trials and research. The HIV-formed consortium was called WAPHIR (West Africa Platform for HIV Intervention Research), and the platform allowed synergies with the EDCTP-funded West Africa Nodes of Excellence for clinical trials on TB, AIDS and Malaria (WANETAM) in 2010-2014, of which I was a Co-PI and leader of the HIV work packages.

Under the auspices of the two Networks, I provided leadership in health research capacity building and initiating regional research collaboration on infectious diseases. In this program, we built a unified HIV cohort bio-resource and database, developed focused laboratory skills training, provided mentoring on grant writing and scientific article writing, built joint research teams and setting the HIV-2 research collaboration agenda. During the 4 year program, I coordinated and supported the post-graduate training of candidates from Senegal, Guinea Bissau and Gambia in order to strengthen HIV research; these include:

1. Assan Diouf (LBV/Fann, Senegal): **PhD** Epidemiology at Montreal, 2012

**Project:** Mortality, morbidity and immune activation among HIV-infected treatment-naïve people in West Africa.

2. Alberta Davis (MRC, The Gambia): **PhD** Immunogenetics at OU, UK 2011

**Project:** Host genetic and epigenetic determinants that mediate differential outcomes in HIV-2 Vs HIV-1.

3. Aminata Mboup (LBV, Senegal): **MSc** Epidemiology at Emory, USA; completed 2013

**Project:** Prospective study of the incidence of HIV among registered female sex-workers in Dakar (1992-2010

4. Gilleh Thomas (MRC, The Gambia): **MSc** Computer Science and Data Management, Hertfordshire, UK, 2012

5. Siry Diop Dieye (LBV, Senegal): **MSc** public Health and Epidemiology, ISD, University of Dakar, 2013

6. Abdou Salam Mbengue (LBV, Senegal): **MSc** Biostatistics and Epidemiology, Witwatersrand, SA, Jan 2014

7. Ibrahim Pierre Ndiaye (LBV, Senegal): **MSc** Clinical Trial, LSHTM, UK, 2013

8. Delfim Mendes Vincente (INASA, Guinea Bissau) **MSc** Clinical Trial, LSHTM, UK, 2012

We facilitated the multi-site clinical trials operations in Dakar such as the EDCTP-funded Phase IIb clinical trial to evaluate the protective efficacy of MVA85A vaccination in HIV-infected Adults; the EU-FP7-funded Prevention Of Liver Fibrosis and Cancer in Africa (PROLIFICA): a phase IIb trial of anti-viral therapy for patients with chronic hepatitis B infection and liver fibrosis; and in Guinea Bissau, a joint initiative to sustain HIV vaccine trials and research capacity through the EDCTP funded HIV-1 immunogen phase I Vaccine trial (MSI\_2009\_10800). We also completed an EDCTP-funded work on NK recall responses in HIV infection and in vaccination, which utilised the WAPHIR funded cohorts.

***WAPHIR International Forum-2 Feb, 2015 (see publication No 81)***: I chaired the organising Committee for the International conference of the African-Canadian partnership on capacity building in HIV prevention and intervention research (The Afri-Can forum-2) in Johannesburg, South Africa (16-18th Feb 2015). Nine HIV Network teams in Africa funded by IDRC/GHRI brought in delegates from 15 countries to share achievements in capacity building.

***Head of Research Training and Career Development (MRC, The Gambia) – March 2016.*** Based on my experience in strengthening capacity in the sub-region, I took up this job to set out a strategy for training and researcher leadership development for MRC.

***Leadership Development Training:* (by Complex-to-Simple Management Consultants-UK).** I was selected by MRC to undergo a senior Leadership Management training:

 **Insight coaching: Oct 2012**

 **Phase 1 course: Jan 2012**

 **Phase II course March 2012.** The first stage provided practical, interactive knowledge on personality/behaviour/personal authority, adapting to style of leadership, assertive behaviour and building confidence, time management, balancing tasks and people, motivating others, and leadership versus management. The second module included sessions on managing others (delegation, coaching, managing performance), communication, strategic planning, influencing and negotiating skills.

***MRC Programme Leader Track: Induction and Development program training- Roffey Park Institute, UK (September 2013):*** I also underwent another leadership training in UK that included training on strengths and development needs of a leader, adding value to work, understanding different approaches to leadership and their application in the specific context of scientific research, improving skills in supporting and challenging peers; and coaching and mentoring followers.

***The Executive Program for Global Health Leadership- September 2018 – June 2019***: I was in the second cohort of the LSHTM organised Executive program for global health leadership that had 3 residential week in London, Geneva and South Africa respectively; with inter-residential mentoring, coaching and bespoke global health resource learning.

**Certified International Business Leader (CIBL) – January 2019. International Institute for Executive Training.** I received training on Leadership approach for driving change, innovation and growth, Frameworks & tools for implementations and strategy evaluation, transformative change, project management, Risk identification & analyses, The change management, Negotiation and emotional Intelligence etc.

**Research Awards:**

* ***International Leadership Award:*** Elizabeth Glaser Pediatric AIDS Foundation (EGPAF). Funded my work to set up the Gambian Paediatric HIV cohort for care and management of paediatric HIV infection in collaboration with the Gambia Government. (November 2007)
* ***MRC, Gambia Unit Director’s Award (first prize for Inspirational Leadership)*** **– November 2013**
* ***Fellow of the African Academy of Sciences (FAAS) – November 2015,***
* ***Organization of Islamic cooperation (OIC) Science and Technology Achievement Award in recognition of outstanding contribution in the field of viral immunology and Health Research Training – September 2017- Kazakhstan***
* ***Global Entrepreneurship Network (GEN, Gambia chapter) – Distinguished Science Innovation Award – 2018***
* ***LSHTM Directors award for Excellence and Innovation in Developing Students as Researchers (2018).***
* ***Fellow of UNESCO World Academy of Sciences (TWAS) – January 2022***

**Student Academic Supervision and Mentorship:**

1) Supervised the laboratory work of clinical researcher Dr Anthony Essofonie from Nigeria (1999-2000). This was in partial fulfilment of his West African Fellowship of Physicians award. Dr Essofonie was developing a method of direct infection of PBMC with recombinant vaccinia virus expressing HIV gag and pol to analyse intracellular INF-γ secretion (work in publication 26; J of Clin; Exp Inmmunol).

2) Supervised the practical research training of Ms Natasha Chinai towards her BSc and became her Second Reader for the Biology Honors degree awarded by Brown University (USA) (June 2001. The title of her Honors thesis was ‘Identification of HIV-2 specific and HIV-1/HIV-2 cross-reactive CTL epitopes.’

**I was the main supervisor of the following post graduate students**:

1) Gibril Bah (Gambian): MSc (Ulster University). Serum iron levels in HIV-2 infection’ (2003-4)

2) Louis Marie Yindom (Cameroon): MSc (Ulster University). HLA polymorphisms in HIV-2 cohort (2004 –2005)

3) Victor Samuel Nuvor (Ghana): PhD (Open University). NK cells in HIV infections (publications 23 & 61) (2004-2009)

4) Abdulrahman Hammond (Ghana): MPhil (Open University). Mycobacterial antigens specific immune responses in HIV infection (publication 31) (2005-2008)

5) Irfan Zaidi (Pakistan): PhD (Open University). Tregs cells in HIV-2 infections (publication 62) (2006-2010)

6) Samuel Nyamweya (Kenya): PhD (Open University). Immune activation and T cell kinetics in HIV-2 infection. (publications 65, 70) (2007-2011)

7) Alberta Davis (Gambia): PhD (Open University). Host genetics and epigenetic determinants of differential outcomes in HIV-2 and HIV-1. (2010- 2016)

8) Musa Abubakar Kana: Post-doc (2020 to date) AESA grantee under the Africa Postdoctoral Training Initiative (APTI) programme

I mentored the following individuals in laboratory research and HIV studies:

1. Dr Sabelle Jallow (Gambia): HLA typing and HIV pathogenesis (2001-4)

Research: Re-entry senior fellowship grant, working on NK responses in HIV vaccinated subjects and HIV at-risk population. (2012 to 2014)

2) Dr Joann McDermid (UK): Lab analyses during her PhD, studying interaction of nutrition and HIV (2006-2007).

3) Dr Uduak Okomo (Nigeria): Paediatric HIV clinician working on care and management of paediatric HIV (2008-2011)

4) Dr Togun Toyin (Nigeria): HIV adult Physician; managing HIV cohort and treatment of HIV adults (2007-2011)

5) Dr Moustapha Mbow (Senegal): 2012 to 2016; on cellular immunology in HIV pathogenesis as a post-doc fellow

6) Dr Moussa Thiam (Senegal): 2012 to 2016; HIV cohort resource management and Molecular

 HIV analyses and impact on immune responses – post-doc fellow

**Active Research Support and Grant Awards**

**1. MRC (UK) intramural Quinquennial Grant (2005-2010)** £1.3 million - 60% of time

Projects included:

* Role of T regulatory cells in HIV-1 and HIV-2 pathogenesis
	+ - * Analysis and comparison of T cell Kinetics in HIV-1
			* and HIV-2
			* The study of Immune Reconstitution syndrome in ART- treated subjects in the Adult cohort
			* Immune responses during interaction of TB and HIV Infection
			* Characteristics of CD4+ and CD8+ T cell responses in HIV-1 and HIV-2 infection
			* NK cell innate responses in HIV-1 and HIV-2 infection
			* Vaccine trial of two-dose measles vaccine in Infants

**2. EGPAF** **International Leadership Award:** Elizabeth Glazer Pediatric Aids Foundation Grant ($300,000 for 3 years) - 20% of time (January 2008–January 2011). Pediatric HIV management and Research (Dr Assan Jaye). The goal was to set up a pediatric HIV clinical and research unit for the study ‘Pathogenesis and treatment of pediatric HIV-1 and HIV-2 infection in The Gambia.’

**3.** **NeuroAIDS NIMH Grant:** **Co-PI**; Assessment of Neurological Impact of HIV-2 in West Africa – A West African Consortium (Gambia, Senegal and Washington University in St Louis, USA). (June 2008 – June 2010; £200,000)

4. **HIV-AIDS Prevention Trials Capacity-Building Grants:** **West African Platform for HIV Intervention Research (WAPHIR): PI;** (CAD$1,800,000, September 2010 –September 2014), funded by the Canadian International Development Research Council/Global Health Research Initiative (IDRC/GHRI)

**5. WANETAM Plus (Towards strengthening the West African Nodes of Excellence in clinical trials on TB, AIDS and Malaria-WANETAM): PI;** In October 2011, the EDCTP (European and Developing Countries Clinical Trial Partnership) approved a grant of €800,000 to enhance the EDCTP West African Node of Excellence capacity strengthening network, by including additional institutions and integrating appropriate member state (Belgium and UK) research projects into WANETAM. I am the principal coordinator.

**6. EDCTP research grant for a Senior Fellow (Dr Sabelle Jallow).** I coordinated the proposal to get a re-entry grant for a Gambian Senior Fellow to pursue the project: “Functional characteristics of effector and recall NK cellular responses and their comparison with adaptive T cell responses in HIV-vaccinated subjects and risk populations” (€200,000 – 2012-2014)

7. **European and Developing Countries Clinical Trial Partnership (EDCTP** **Horizon 2000**)- -**WANETAM-II**: Capacity building and network grant for West African network of Clinical trial on AIDS, Malaria and TB 2017 -2020; €3,000,000

8. **European and Developing Countries Clinical Trial Partnership (EDCTP** **Horizon 2000**)- -**WANETAM-III**: Capacity building and network grant for West African network of Clinical trial on AIDS, Malaria and TB 2021 -2024; €4,000,000

### Membership and Committees

1. Member - Association of University Teachers, UK (AUT) (1998-2003)
2. Member - Royal Society for Tropical Medicine and Hygiene (2006-to date)
3. Member - Gambia Veterinary Association (1993 –to date)
4. President - The Gambia Immunology Society (GAMIS) (2006-to date)
5. Member of the Board of Directors WALIC (West Africa Livestock Innovation Centre- Gambia Govt) -2016
6. Member of the Board of Directors of GAIL (GAM Africa Institute for Leadership – Gambia)- 2018
7. Member of the Board of Directors for Daddy Jobe Comprehensive School, Pipeline, Gambia

**Corporate Roles**

**Training and career development of staff (MPhil and PhD programmes): 1998-to date**

1. Member of, and Secretary to, the Higher Degree Training Committee, MRC Unit, The Gambia (1998- 2004).
2. Open University Coordinator for the MRC Unit, Gambia as an Affiliated Research Centre (ARC) (2004 – 2010).
3. Chair of Higher Degrees Committee (2004 –2010).
4. Chair of Training and Career Development Committee (2015 to-date)

**Health and Safety: 2003–2010**

1. Chair of Fajara Local Health and Safety Committee
2. Chair of the Central Health and Safety Committee
3. Radiation Safety Supervisor

**Science governance and leadership:**

1. Member of Scientific Coordinating Committee (SCC); ad hoc member of MRC/Gambia Government Ethics Committee. I received a certificate on completing the **Research Ethics Training Curriculum** in 2007 by Family Health International
2. Member of the MRC Leadership Board (August 2008 – 2010; Jan 2014 to-date)
3. Member of the Laboratory Management Board – November 2008- 2010
4. Member of the MRC Research Training & Development (RTD) Policy, Governance & Systems Task Group
5. Full member of the MRCG/GG Ethics Committee (2018)
6. MRCG at LSHTM Liaison and Adviser between MRCG and the Gambian Government Ministries of Health and Higher Education; Convener and Chair of the MRCG/GG annual joint meetings.

**Unit Scientific Seminar Coordinator** for presentations by MRC scientists and visiting workers (2005-2008)

**External Global Health Contribution:**

1**. African Academy of Sciences/Royal Society, UK GCRF** Interview panellist & Deputy Chair of PANEL A for the first, second and third rounds of Future Leaders-African Independent Research (FLAIR) Fellowships (Nairobi – 2018, 2019 and 2020-zoom, respectively).

2. External Reviews: A member of the NIHR panel reviewer for the Global Effort on COVID-19 (GECO) Health Research – 2020

3. Panel Member: Wellcome Trust, PhD Programmes for Health Professionals Competition - 2021

4. MRCG member for the MPhil in Genomic Science studentships Committee at the University of Cambridge

1. Member of The **AAS Membership & Advisory Committee (MAC**)-2021. To identify and review dossiers of the best and brightest scientists in the continent and diaspora, to join the fellowship.
2. Panel Member Wellcome Trust quinquennial review (QQR) of the Oxford University Clinical Research Unit (OUCRU) – 28 February to 4the March 2022

**Publications**

1.**Jaye A**, Nagaratnam V, Mosimobale FB. Nematodiasis in cattle. *Agricultural Education*

*Bulletin* 1986; **3**, No 1, ABU Zaria

2. **Jaye** **A**. Animal Health Management Programme: Suggested Methods of Adoption for Tropical Africa. *Farfaru Journal of Multi-disciplinary Studies* 1988; **2**, No 1, 155-8

3. Esievo KAN, **Jaye A**., Andrews JN, Ukoha AI, Alafitayo RA, Eduvie LO, Saror DI, Njoku CO. Electrophoresis of bovine erythrocyte sialic acids: Existence of additional band in Trypanotolerant N’Dama cattle. *Journal of Comparative Pathology* 1990; **102**, 35-361

4. Outlaw MC, **Jaye A**, Whittle HC, Pringle CR. Clustering of haemagglutinin gene sequences of measles virus isolated in the Gambia. *Virus Res.* 1997; **48**:125-31.

5. **Jaye A,** Magnusen AF, Whittle HC. Human leucocyte antigen class I- and class II-restricted cytotoxic T cell responses to measles antigens in immune adults. *J Infect Dis.* 1998; **177**:1282-9.

6. **Jaye A**, Magnusen AF, Sadiq A, Corrah T, Whittle HC. Ex Vivo Analysis of Cytotoxic T Lymphocytes to Measles Antigens during Infection and after Vaccination in Gambian Children. *J Clin. Invest.* 1998; **102**:1969-1977.

7. Monkgolsapaya J, **Jaye A,** Callan MFC, Magnusen AF, McMichael AJ, Whittle HC. Antigen-Specific Expansion of Cytotoxic T Lymphocytes in Acute Measles Virus infection. *J. Virol.* 1999; **73**:67-71.

8. Atabani SF, Byrnes AA, **Jaye A**, Kidd IM, Magnusen AF, Whittle H, Karp CL. Natural Measles causes prolonged suppression of interleukin-12 product. *J Infect Dis*. 2001;**184**:1-9.

9. Dorrell L, Willcox BE, Jones EY, Gellepsie G, Njai H, Sabally S, **Jaye A**, DeGleria K, Rostrom, T, Lepin E, McMichael A, Whittle, HC, Rowland-Jones S. Cytotoxix T lymphocytes recognise structurally diverse, clade-specific and cross-reactive peptides in human immunodeficiency virus type-1 gag through HLA-B53. *Eur J Immunol*. 2001; **31**:1747-56.

10. Klein MR, Smith SM, Hammond AS, Ogg GS, King AS, Vekemans J, **Jaye A,** Lukey PT and McAdam KPWJ. HLA-B35 restricted-CD8+ T-cell epitopes in the antigen 85 complex of *Mycobacterium* *tuberculosis*. *J. Infect Dis*. 2001; **183**:928-34.

11. Klein MR, Smith SM, Hammond AS, Ogg GS, King AS, Vekemans J, **Jaye A,** Lukey PT and McAdam KPWJ. HLA-B\*35 Restricted-CD8+ T-Cell Epitope in *Mycobacteruim tuberculosis* Rv2903c. *Infect Immun*. 2002 **70**:981-984.

12. Herberts CA, van Gaans-van den Brink J, van der Heeft E, van Wijk M, Hoekman J**, Jaye A,** Poelen MC, Boog CJ, Roholl PJ, Whittle H, de Jong AP, van Els CACM. Autoreactivity against induced or upregulated abundant *self* peptides in HLA-A\*0201 following measles virus infection *Hum Immunol*. 2003, **64**:44-55.

13. **Jaye A,** Herberts CA, Jallow S, Atabani S, Klein MR, Hoogerhout P, Kidd M, Els CACM, Whittle HC. Vigorous but short term IFN-γ T cell responses against a dominant HLA-A\*02-restricted measles virus epitope in patients with measles. *J Virol*, 2003. **77**:5014-5016.

14. Alabi AS, Jaffar S, Ariyoshi K, Blanchard T, Schim Van Der Loeff M, Awasana AA, Corrah T, Sabally S, Sarge-Njie R, Cham-Jallow F, **Jaye A,** Berry N and Whittle H. Plasma viral load, CD4 cell percentage, HLA and survival of HIV-1, HIV-2 and dually infected Gambian patients. *AIDS*, 2003; **17**:1513-1520.

15. Price P, Bolitho P, **Jaye A**, Glasson M, Yindom LM, Sirugo G, Chase D, Mcdermid J, Whittle H. A Gambian TNF haplotype matches the European HLA-A1, B8, DR3 and Chinese HLA-A33, B58, DR3 haplotypes. *Tissue Antigen*, 2003; **62**:72-75

16. Lopes AR, **Jaye A**, Dorrell L, Sabally S, Alabi A, Jones N, Flower D, De Groot, Newton P, Lascar M, Williams I, Whittle H, Bertolletti A, Borrow A, Maini M. Greater CD8+ TCR heterogeneity and functional flexibility in HIV-2 compared to HIV-1 infection. *J Immunol,* 2003; **171**:307-316.

17. **Jaye A**, Njie-sarge R, Schim M, Todd J, Alabi A, S, Sabally S, Corrah T, Whittle H. No Differences in Cellular Immune Responses between Asymptomatic Human Immunodeficiency Type 1 and Type 2-Infected Gambian Patients *J Infect Dis* 2004, **189**:498-505.

18. Pinder M, Reece WHH, Akinwunmi P, Plebanski M, Flanagan KL, Lee EAM, Doherty T, Milligan P, **Jaye A,** Tornieporth N, Ballou R, McAdam KPMJ, Cohen J, Hill AVS. Cellular immunity induced by RTS,S/ASO2, a recombinant P falciparum malaria vaccine, in semi-immune adults in the Gambia *Clin. Exp. Immunol.* 2004, **135**:286-93

19. Van Der Sande MA, Van Der Loeff MF, Aveika AA, Sabally S, Togun T, Sarge-Njie R, Alabi As, **Jaye A,** Corrah T, Whittle HC. Body Mass Index at Time of HIV Diagnosis: A strong and independent predictor of survival. *J Acquir Immune Defic Syndr.* 2004 Oct 1;**37**(2):1288-1294.

20. Van der Sande MA, Schim Van der Loeff MF, Bennet RC, Dowling M, Aveika AA, Togun TO, Sabally S, Jeffries D, Adegbola RA, Sarge-Njie R, **Jaye A,** Corrah T, McConkey S, Whittle HC. Incidence of Tuberculosis and survival after its diagnosis in patients infected with HIV-1 and HIV-2. *AIDS*. 2004 Sep 24;**18**(14):1933-41.

21. Gillespie GM, Pinheiro S, Sayeid-Al-Jamee M, Alabi A, Kaye S, Sabally S, Sarge-Njie R, Njai H, Joof K, **Jaye A**, Whittle H, Rowland-Jones S, Dorrell L. CD8(+) T cell responses to human immunodeficiency viruses type 2 (HIV-2) and type 1 (HIV-1) gag proteins are distinguishable by magnitude and breadth but not cellular phenotype. *Eur J Immunol*. 2005 May;**35**(5):1445-53.

22. Hammond AS, Klein MR, Corrah T, Fox A, **Jaye A**, McAdam KP, Brooks RH. Mycobacterium tuberculosis genome-wide screen exposes multiple CD8 T cell epitopes. *Clin Exp Immunol*. 2005 Apr;**140**(1):109-16.

23. Nuvor SM, van der Sande M, Rowland-Jones S, Whittle H, **Jaye A**. Natural Killer Cell Function is well preserved in Asymptomatic HIV-2 Infection but Similar to HIV-1 Infection when CD4 T cell counts fall. *J Virol.,* 2006 Mar. 80(5):2529-2538.

24. Schim van der Loeof MF, Awasana AA, Sarge-Njie R, van der Sande M, **Jaye A,** Sabally S, Corrah T, McConkey SJ, Whittle HC. Sixteen years of HIV surveillance in a West African clinic reveals divergent epidemic trends of HIV-1 and HIV-2. *Int. J Epidemiol*., 2006 Mar 16;

25. Duvall MG, **Jaye A,** Dong T, Brenchley JM, Alabi AS, Jeffries DJ, van der Sande M, Togun TO, McConkey SJ, Douek DC, McMichael AJ, Whittle HC, Koup RA, and Rowland-Jones SL. **Maintenance of HIV-Specific CD4+ T Cell Help Distinguishes HIV-2 from HIV-1 Infection. *J Immunol*** 2006; 176:6973-6981

26. Eshofonie A, Schim van der Loeff M, Whittle H, **Jaye, A.** An adaptation of Recombinant Vaccinia-based ELISPOT and Intracellular Cytokine Staining for a comparative measurement of cellular immune responses in HIV-1 and HIV-2 infections in West Africa. *Clin. Exp. Immunol.* 2006; 146:471-578

27. Martinez-Steele E, Aveika AA, Corrah T, Sabally S, van der Sande M, **Jaye A**, Togun T, Sarge-Njie R, McConkey SJ, Whittle H, Schim van der Loeff MF. Is HIV-2 induced AIDS different from HIV-1 associated AIDS? Data from a West African clinic. *AIDS* 2007, 21:317-324

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