

CURRICULUM VITAE (December 2012)

JOSPEH A. CONRAD

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EDUCATION AND POST-GRADUATE TRAINING

2000 Centre College, Danville, KY, **B.S.** in Biochemistry, Molecular Biology
2011 Vanderbilt University, Nashville, TN, **Ph.D.** in Microbiology and Immunology
2011-2012 Vanderbilt Institute for Global Health, Nashville, TN, **Fellowship** in Global Health

PROFESSIONAL APPOINTMENTS

ACADEMIC AND RESEARCH

1997-2000 **Advisor/Director**, Centre College/Kentucky Governor's Scholars Program Residence Hall Staff, Danville, KY
2000-2002 **Peace Corps Volunteer**, United States Peace Corps-Zambias, Lusaka, Zambia
2003 **Production Consultant**, Biologics International-Yeast Cell Extract Division, Florence, KY
2003-2006 **Graduate Student**, Vanderbilt University Department of Microbiology & Immunology, Nashville, TN
2007-2009 **Laboratory Teaching Assistant**, Vanderbilt University Medical Microbiology, Nashville, TN
2007-2010 **Flextime Group Leader**, Vanderbilt University Microbial Pathogenesis & Immunology, Bioregulation II, Nashville, TN
2007-2011 **PhD Candidate**, Vanderbilt University Department of Microbiology & Immunology, Nashville, TN
2009-2010 **Adjunct Instructor**, Nashville State Community College Division of Math & Science, Nashville, TN
2011-2012 **Global Health Fellow**, Vanderbilt Institute for Global Health, Nashville, TN
2012-present **Research Assistant Professor**, Vanderbilt University Department of Chemistry, Nashville, TN

PROFESSIONAL ORGANIZATIONS

2000-Present **Member**, Phi Kappa Tau Fraternity Alumni Association
2003-Present **Member**, Vanderbilt University-Graduate Student Association
2005-Present **Member**, Vanderbilt University-Microbiology Graduate Student Association
2005-Present **Member**, Vanderbilt University-Microbes and Defense Academic Society
2008-2013 **Member**, International AIDS Society

PROFESSIONAL ACTIVITIES

AWARDS AND HONORS

1995 Kentucky Governor's Scholarship
1996-2000 Associated Centre College Scholarship
1996-2000 James Graham Brown Scholarship, Centre College
2003-2007 Member, Microbiology Graduate Student AIDS Outreach
2005-2010 HARTP Training Grant-Graduate Student Appointee, Vanderbilt University
2006-2011 Member, Vanderbilt University-Microbes and Defense Academic Society
2008 Travel Grant Recipient, XVII International AIDS Conference, International AIDS Society
2008 Travel Grant Recipient, Vanderbilt University Graduate Student Association
2008-2011 Teaching Certificate Program (completed), Vanderbilt University Center for Teaching

OTHER PROFESSIONAL ACTIVITIES

SELECTED PRESENTATIONS

- 12/05 Centre College Senior Seminar Lecture Series, Danville, KY. *Investigations of HIV-Specific Immune Responses in HIV+ Mother-Child Pairs in Port au Prince, Haiti*
- 07/06 GHESKIO, Port au Prince, Haiti. *Comparison of HIV-Specific Immune Responses in HLA-Matched Mother-Child Pairs*
- 04/11 Vanderbilt Institute for Global Health, Nashville, TN. *Comparison of HIV-Specific Immune Responses in HLA-Matched Mother-Child Pairs*

TEACHING ACTIVITIES

- 10/01 **Primary HIV/AIDS Instructor & Secondary Aquaculture Instructor**, Peace Corps Provincial and National Training of Trainers, Zambia
- 07/02 **Primary HIV/AIDS Instructor & Secondary Aquaculture Instructor**, Peace Corps Provincial and National Training of Trainers, Zambia
- 2007-2009 **Teaching Assistant**, Micro 5020, Medical Microbiology Laboratory (Spring), Vanderbilt University Medical School, Nashville, TN
- 2008 **Head Teaching Assistant**, Micro 5020, Medical Microbiology Laboratory, Vanderbilt University Medical School, Nashville, TN
- 2008-2009 **Flextime Journal Review Leader**, Microbial Topics and Defense Mechanisms (Spring), Vanderbilt University Medical School, Nashville, TN
- 2008-2009 **Guest Lecturer**, 328.2, Molecular Virology – Introduction to Flow Cytometry (Fall), Vanderbilt University Microbiology and Immunology, Nashville, TN
- 2009 **Guest Lecturer**, 332 and 334 Foundations in M&IM – Introduction to Flow Cytometry and Microarray, Vanderbilt University Microbiology and Immunology, Nashville, TN
- 2009-2010 **Adjunct Instructor**, BIOL2230-Introduction to Microbiology (Summer & Fall), Nashville State Community College, Nashville, TN

RESEARCH GRANT SUPPORT

Currently active (December 2012):

- Multi-component HIV Intervention Packages for Chinese MSM (MP3); 1R01AI094562-02 (Vermund, PI). 3/1/2011-2/28/2015; NIH (15% effort).

Implementation trial to study linkage to care in MSM in Beijing; phylogenetic studies to determine the extent and characteristics of HIV transmission clusters in enrolled MSM.

- International Epidemiologic Databases to Evaluate AIDS (**IeDEA**) Network Coordinating Center; 1U01AI096186-01 (Lindgren/Wester, CO-PI's). 7/1/2011-6/30/2016; NIH (40% effort) \$742,000.

Program Manager, IeDEA Network Coordinating Center.

- Vanderbilt-Zambia Network for Innovation in Global Health Technologies (VZ-NIGHT); 1D43TW009348-01 (Haselton/Heimburger/Wright, PI). 08/07/2012-08/06/2017; NIH (10% effort) \$1,740,000.

International, interdisciplinary post-doctoral training program.

- Low Resource Extraction and Processing of Biological Samples; Global Health No. OPP1028749 (Haselton/Wright, Co-PIs); 7/1/2011-7/13/2012; Gates Foundation (40% effort) \$911,748

To develop a low resource device to extract and concentrate nucleic acids and proteins from biological samples utilizing the properties of surface tension valves.

Grants Completed from 2005

- 2005-2010 NIH 5T32AI060571 (Doctoral Student Trainee), *HIV/AIDS Research Training Program*
- 2010-2011 NIH 5P01AI078064-02 (Doctoral Student Trainee), *Characterization of T & B Cell Responses Correlated with Broadly Neutralizing Abs*

PUBLICATIONS AND PRESENTATIONS

Articles in Referred Journals and Theses:

1. Meyer-Olson D, Brady KW, Bartman MT, O'Sullivan KM, Simons BC, **Conrad JA**, Duncan CB, Lorey S, Siddique A, Draenert R, Addo M, Altfeld M, Rosenberg E, Allen TM, Walker BD, Kalams SA. Fluctuations of functionally distinct CD8⁺ T-cell clonotypes demonstrate flexibility of the HIV-specific TCR repertoire. *Blood* 2006; 107(6):2373-83. [PMCID: 1895729](#)
2. Schneidewind A, Tang Y, Brockman MA, Ryland EG, Dunkley-Thompson J, Steel-Duncan JC, St John MA, **Conrad JA**, Kalams SA, Noel F, Allen TM, Christie CD, Feeney ME. Maternal transmission of human immunodeficiency virus escape mutations subverts HLA-B57 immunodominance but facilitates viral control in the haploidentical infant. *J Virol* 2009; 83(17): 8816-27. [PMCID: 2738193](#)
3. Meyer-Olson D, Simons BC, **Conrad JA**, Smith RM, Barnett L, Lorey SL, Duncan CB, Ramalingam R, Kalams SA. Clonal expansion and TCR-independent differentiation shape the HIV-specific CD8⁺ effector-memory T-cell repertoire in vivo. *Blood* 2010; 116(3): 396-405. [PMCID: 2913459](#)
4. **Conrad JA**, Ramalingam RK, Smith RM, Barnett L, Lorey SL, Wei J, Simons BC, Sadagopal S, Meyer-Olson D, Kalams SA. Dominant clonotypes within HIV-specific T cell responses are programmed death-1high and CD127low and display reduced variant cross-reactivity. *J Immunol* 2011; 186(12): 6871-85. [PMCID: PMC3403726](#)
5. **Conrad JA**. Clonotypic Dominance within the HIV-Epitope-Specific T cell Receptor Repertoire Correlates with Phenotypic and Functional Impairment. August, 2011. <http://etd.library.vanderbilt.edu/available/etd-04292011-141143/unrestricted/JACDissfinalupload.pdf>.
6. **Conrad JA**, Ramalingam RK, Duncan CB, Smith RM, Wei J, Barnett L, Simons BC, Lorey SL, Kalams SA. Anti-retroviral therapy reduces the magnitude and T cell receptor repertoire diversity of HIV-specific T cell responses without changing T cell clonotype dominance. *J Virol* 2012; 86(8): 4213-21. [PMCID: PMC3318638](#)

Presentations at Scientific Meetings:

1. Simons B, **Conrad J**, Kalams S. *Characterization of HIV-specific CD8 T cells responses in long term non-progressors (Poster)*. Presented at the Vanderbilt University Microbiology and Immunology Departmental Research Retreat, Lake Barkley, KY in October, 2004.
2. Simons B, **Conrad J**, Kalams S. *Characterization of HIV-specific CD8 T cells responses in long term non-progressors (Poster)*. Presented at the Vanderbilt-Meharry CFAR Workshop on Disparities in the HIV Epidemic, Nashville, TN on November, 18, 2004.
3. **Conrad J**, Simons B, Sadagopal S, Barnett L, Wei J, Kalams S. *PD-1 expression is increased on dominant T-cell clonotypes within HIV epitope-specific T-cell populations in chronic HIV infection (Oral Abstract TUA0101)*. Presented at the XVII International AIDS Conference, Mexico City, Mexico from August 3-8, 2008.
4. **Conrad JA**, Simons BC, Ramalingam RK, Smith RM, Wei J, Barnett L, Kalams SA. *PD-1 is highly expressed on dominant CTL clonotypes over time and during varying levels of antigen exposure (Oral Abstract)*. Presented at the Vanderbilt University Graduate Student Research Symposium, Nashville, TN on March 30, 2009.
5. **Conrad JA**, Simons BC, Ramalingam RK, Smith RM, Barnett L, Kalams SA. *Dominant clonotypes within HIV-specific T-cell responses are PD-1hi and CD127low and display reduced variant cross-reactivity (Oral Abstract)*. Presented at the AIDS Vaccine 2010 Conference, Atlanta, GA on September 29, 2010.