### **ABSTRACT**

## DISSERTATION COMMITTEE

M. A. Julie Westerink, M.D., Major Advisor Deepak Malhotra, M.D., Ph.D. Z. Kevin Pan, M.D., Ph.D. Stanislaw Stepkowski, D.V.M., Ph.D., D.Sc. R. Mark Wooten, Ph.D.

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# DISSERTATION PRESENTATION

Jennifer A. Ohtola

June 19, 2015

Pneumococcal vaccination in aging HIV-infected individuals

The University of Toledo College of Medicine and Life Sciences

Infection, Immunity & Transplantation (IIT) Track

Department of Medicine

Ph.D. in Biomedical Sciences

#### **PUBLICATIONS**

**Ohtola JA**, Saul-McBeth JL, Iyer AS, Leggat DJ, Khuder SA, Khaskhely NM, Westerink MAJ. Quantitative and functional antibody responses to the 13-valent conjugate and/or 23-valent purified polysaccharide vaccine in aging HIV-infected adults. Manuscript under review.

Ohtola JA\*, Khaskhely NM, Saul-McBeth JL, Iyer AS, Leggat DJ, Khuder SA, Westerink MAJ. Alterations in serotype-specific B cell responses to the 13-valent pneumococcal conjugate vaccine in aging HIV-infected adults. Manuscript under review.

**PRESENTATIONS** 

Ohtola JA, Kommoori S, Khaskhely

NM, Leggat DJ, Iyer AS, Westerink

MAJ. Impact of pneumococcal vac-

cination on B cell responses in the

aging HIV+ population. American

Society for Microbiology 114th General

Meeting (2014), Boston, Massachu-

Ohtola JA, Kommoori S, Khaskhely

NM, Leggat DJ, Iyer AS, Westerink MAJ. B cell responses to pneumococ-

cal vaccination in the aging HIV+ pop-

ulation. 2014 Annual Graduate Re-

search Forum, Toledo, Ohio. Poster

Ohtola JA, Takashima A. Discovery

of neutrophil-targeted immunoregula-

tory drugs by unbiased screening.

2013 Annual Graduate Research Fo-

rum, Toledo, Ohio. Poster presenta-

setts. Poster presentation.

presentation.

tion.

Iyer AS, Khaskhely NM, Leggat DJ, <u>Ohtola JA</u>, Saul-McBeth JL, Khuder SA, Westerink, MAJ. Serum inflammatory markers and surface expression of tumor necrosis factor receptors in pneumococcal polysaccharide (PPS)-specific B cells of HIV-positive and HIV-negative adults. Manuscript under review.

Iyer AS, Leggat DJ, Ohtola JA, Duggan JM, Georgescu CA, Al Rizaiza AA, Khuder SA, Khaskhely NM, Westerink MAJ. Response to pneumococcal polysaccharide vaccination in HIV-positive individuals on long term highly active antiretroviral therapy. J AIDS Clin Res. 2015 Feb;6(2). PMID: 25908996.

Leggat DJ, Iyer AS, <u>Ohtola JA</u>, Kommoori S, Duggan JM, Georgescu CA, Khuder SA, Khaskhely NM, Westerink MAJ. Response to pneumococcal polysaccharide vaccination in newly diagnosed HIV-positive individuals. J AIDS Clin Res. 2015 Feb;6(2). PMID: 25908995.

Yao Y, Matsushima H, <u>Ohtola JA</u>, Geng S, Lu R, Takashima A. Neutrophil priming occurs in a sequential manner and can be visualized in living animals by monitoring IL-1 promoter activation. J Immunol. 2015 Feb 1;194(3):1211-24. PMID: 25527787.

Iyer AS, <u>Ohtola JA</u>\*, Westerink MAJ. Age-related immune responses to pneumococcal polysaccharide vaccination: lessons for the clinic. Expert Rev Vaccines. 2015 Jan; 14(1):85-97. PMID: 25269650.

Cortes C, Ohtola JA, Saggu G, Ferreira VP. Local release of properdin in the cellular microenvironment: role in pattern recognition and amplification of the alternative pathway of complement. Front Immunol. 2013 Jan 17;3:412. PMID: 23335922.

\*Denotes co-first author.

#### LEADERSHIP

**President**, University of Toledo Council of Biomedical Graduate Students. 2014-2015.

**Leader**, TH3 Infection, Immunity and Transplantation Student Group. 2013 -2014.

**M.D./Ph.D. Representative**, University of Toledo Council of Biomedical Graduate Students. 2012-2014.

#### **AWARDS**

M.D./Ph.D. program full tuition scholarship.

#### **FUTURE PLANS**