

## CURRICULUM VITAE

**Date of Revision:** February 20th, 2016

**Name:** Raymond Morris Johnson, M.D., Ph.D.

**Proposed for Appointment as:** Associate Professor, Department of Internal Medicine, Section of Infectious Diseases, Clinician Scholar Track, with a secondary appointment in the Department of Microbial Pathogenesis.

**Term:** *Primary appointment* July 1, 2015 to June 30, 2020  
*Secondary appointment* July 1, 2015 to June 30, 2020

**School:** Yale University School of Medicine and Graduate School

### Reason for Appointment:

### Education

B.A. Lawrence University (Chemistry Interdisciplinary) 1984  
Ph.D. University of Chicago, (Molecular Genetics and Cell Biology) 1989  
M.D. University of Chicago Pritzker School of Medicine 1992

### Career/Academic Appointments:

1993-94 Intern, Internal Medicine, Washington University, St. Louis, MO  
1995-98 Resident, Internal Medicine, Washington University, St. Louis, MO  
1998-99 Postdoctoral Fellow in Infectious Diseases, Washington University, St. Louis, MO  
1999-00 Postdoctoral Fellowship, Howard Hughes, Washington University, St. Louis, MO  
2000-01 Instructor, Medicine/Infectious Diseases, Washington University, St. Louis, MO  
2001-2008 Assistant Professor, Department of Medicine, Indiana University School of Medicine, Indianapolis, IN  
2008-present Associate Professor, Medicine/ Microbiology & Immunology, Indiana University School of Medicine, Indianapolis, IN

### Administrative Positions:

2005-2011 Chair of the IUPUI Biohazard Committee (BHC), Indiana University Purdue University at Indianapolis, Indianapolis, IN

### Board Certification

American Board of Internal Medicine, Internal Medicine, 1995, recertified in 2014  
American Board of Internal Medicine, Certification in Infectious Diseases 1997, recertified in 2014

### Professional Honors & Recognition

#### National:

1997 Howard Hughes Fellow  
1992 Alpha Omega Alpha Medical Honor Society  
1984 Phi Beta Kappa

**Grant/Clinical Trials History:**

**Current Grants**

Agency: NIH/NIAID  
ID# R01AI113103  
Title: "Role of *Plac8* in natural and vaccine-generated immunity to *Chlamydia* infections"  
PI: Raymond Johnson and Robert Brunham (co-PI)  
Percent Effort: 30% salary (67% of total budget)  
Direct Cost per year: \$250,000  
Total costs for project period: \$1,691,445  
Project period: 07/01/14-06/30/19

Agency: NIH/NIAID  
ID# 1R21AI114953-01  
Title: "Role of IL-13 producing CD8 T cells in *Chlamydia* infection-induced immunopathology"  
PI: Raymond Johnson  
Percent Effort: 20%  
Direct cost: \$250,000 over 2 yr  
Total costs for project period: \$390,000  
Project period: 08/01/2015 – 04/30/2017

**Past Grants**

Agency: NIH/ University of Chicago  
Medical Scientist Training Program, 1984-1992

Agency: Hughes Foundation/ Washington University  
Howard Hughes Medical Fellow, 1997-2000

Agency: NIH/NIAID  
ID# K08AI52128  
Title: "Immunobiology of *Chlamydia*"  
PI: Raymond Johnson, MD, PhD  
Percent effort: 75%  
Total costs for project period: \$382,401  
Project Period: 09/01/02-05/31/05

Agency: Indiana University School of Medicine, Research Core Pilot Grant  
ID# 22-822-26  
Title: "Inflammatory States in Oviduct Epithelium and Stroma"  
PI: Raymond Johnson  
Percent effort: 0%  
Total costs for project period: \$10,000  
Project period: 07/01/04-06/30/06

Agency: Showalter Trust  
ID# NA

Title: “Cellular Immunity to *Chlamydia* at the Epithelial Interface”  
PI: Raymond Johnson  
Percent effort: 0%  
Direct costs per year: \$60,000  
Total costs for project period: \$60,000  
Project period: 07/01/07-06/30/08

Agency: NIH/NIAID  
ID# R01AI070514  
Title: “Cellular Immunity to *Chlamydia* at the Epithelial Interface”  
PI: Raymond Johnson  
Percent effort: 65%  
Direct costs per year: \$245,250  
Total costs for project period: \$1,467,586  
Project period: 07/01/07-6/30/12

Agency: NIH/NHLBI  
ID# R01HL095149  
Title: “HIV Inflammation and Endothelial Dysfunction”  
PI: Samir Gupta & Matthias Clauss (co-PI)  
Role: Coinvestigator  
Percent effort: 5%  
Direct costs per year: \$496,297  
Total costs for project period: \$4,106,101  
Project period: 09/30/08-09/29/13

Agency: NIH/NIAID  
ID# R21AI099307  
Title: “Six new *Chlamydia* epitopes”  
PI: Raymond Johnson and David Nelson (co-PI)  
Percent Effort: 40% salary (85% of total budget)  
Direct cost: \$275,000 over 2 yr  
Total costs for project period: \$424,480  
Project period: 02/15/2012 – 01/31/2015 (*no cost ext.*)

**Invited Speaking Engagements, Presentations, Symposia & Workshops Not Affiliated With Yale:**

***International***

2013: STI & AIDS World Congress (ISSTD). Vienna, Austria. Plenary speaker for Basic Science Symposium: STD Vaccines and Correlates of Immunity- “*Chlamydia trachomatis*”.

***National***

2015: STCEID 2016 Spring Seminar Series, University of Texas at San Antonio. “The evolving paradigm for *Chlamydia* immunity and immunopathology”

2011: Microbiology Seminar University of Southern Illinois. “Redundant T cell-mediated mechanisms clear *Chlamydia* infections”.

2006: Microbiology Seminar Midwestern University. Downers Grove, IL. “*Chlamydia* innate and adaptive immunity at the epithelial interface”.

2005 NIAID sponsored 1st Chlamydia Vaccine Workshop. RML, Hamilton, MN. Invited participant/speaker, “Potential contributions of epithelial immunobiology to vaccine development”.

2005: Rocky Mountain Laboratories Seminar Series. Hamilton, MT. “Innate and adaptive immunity to *Chlamydia* at the epithelial interface”.

2002: Immunology Seminar University of Arkansas Medical School. Little Rock, AR. “Antigen presentation by B lymphocytes disrupts a CD28/CD154 independent activation pathway used by CD8 T lymphocytes during interactions with nonprofessional antigen presenting cells”.

### ***Regional***

2014: Rheumatology Grand Rounds, Indiana University School of Medicine, September 23<sup>rd</sup>, 2014. Indianapolis, IN. “*Chlamydia*-associated reactive arthritis”.

2010: OBY/GYN Grand Rounds, Indiana University School of Medicine. Indianapolis, IN. “Delusions of Grandeur or early steps toward a *Chlamydia* Vaccine”.

### **Peer-Reviewed Presentations & Symposia Given at Meetings Not Affiliated With Yale**

#### ***International:***

2011: 5th Biennial Meeting of the *Chlamydia* Basic Research Society. Redondo Beach, CA. “Identification of the CD4 T cell effector molecule for the CD4 T cell degranulation-dependent clearance mechanism”.

2009: 4th Biennial Meeting of the *Chlamydia* Basic Research Society. Little Rock, AK. “*Chlamydia*-specific CD4 T cell recognition of infected upper reproductive tract epithelial cells”.

2005: 2nd Biennial Meeting of the *Chlamydia* Basic Research Society. Indianapolis, IN. “*Chlamydia*-induced alteration of oviduct epithelial antigen presentation as a mechanism of immune evasion”.

2003: 1st Biennial Meeting of the *Chlamydia* Basic Research Society. Memphis, Tennessee. “Effects of MoPn infection on epithelial APC function”.

#### ***Regional:***

2005: Central Society for Clinical Research. Chicago, IL. “*Chlamydia trachomatis*: Host defense and immune evasion”.

2003: 10th Annual Midwest Pathogenesis Meeting. Iowa City, IA. “The role of oviduct epithelial cells in innate and adaptive immunity to *Chlamydia trachomatis*”.

## Professional Service

### Peer Review Groups/Grant Study Sections:

2015: Ehrlichia P01 review

2015 ZRG1 IMM-J (90) S Innate/Adaptive Immunology and Vaccine Development

2014 NIH Transformative Research Award; mail-in review

2005-2006 American Heart Association Microbiology and Immunology National Study Section

### Advisory Boards

2007-2008 American Liver Foundation- Indiana Chapter 2007-2008

### Journal Service:

Reviews for The American Journal of the Medical Sciences (2007), Clinical Infectious Diseases (2009, 2012), Current Microbiology (2004), FEMS Immunology & Medical Microbiology (2011), HIV Clinical Trials (2014), Infection and Immunity (2007-2012), The Journal of Immunology (2010), Journal of Infection (2007), Journal of Infectious Diseases (2012), Journal of Medical Microbiology (2010, 2012), Jove (2012), Microbes and Infection (2007), Nanomedicine (2013), Pathogens and Disease (2015), Plos One (2012-2013), PLOS Neglected Tropical Diseases (2016), and Plos Pathogens (2013).

### Professional Service for Professional Organizations

Co-chair for *Chlamydia* Basic Research Society meeting sessions:

2013: Innate Immunity session of the 6th Biennial Meeting of the *Chlamydia* Basic Research Society. San Antonio, TX.

2011: Innate Immunity session of the 5th Biennial Meeting of the *Chlamydia* Basic Research Society. Redondo Beach, CA.

2004: Immunopathogenesis II session of the 4th Biennial Meeting of the *Chlamydia* Basic Research Society (International meeting), Little Rock, AK.

### Yale University Service:

None

### Public Service:

- 2010 & 2011 Commissioner of neighborhood youth baseball league

- 2004-2011 Youth baseball coach

- 2003-2005 Board member of College Mentors for Kids

- 2001-2005 CAB (Community Action Board- HIV advocacy board at the Damien Center)

- 2002 African and African American HIV/AIDS/STD Annual Prevention and Intervention Annual Conference: "AIDS in Africa"

- 2001 Anthrax Education for US Postal Service Workers

- 2001 HIV update: Third Annual HIV/AIDS in the African American and Hispanic Community Update,

### Bibliography:

**Peer-Reviewed Original Research:**

1. **R.M. Johnson** and P.G. Spear. "Herpes Simplex Glycoprotein D Mediates Interference with Herpes Simplex Virus Infection", (1989), *Journal of Virology* 63, 819-827. PMID: 2536105.
2. **R.M. Johnson**, D.W. Lancki, F.W. Fitch, and P.G. Spear. " *Herpes simplex* Glycoprotein D is recognized as antigen by CD4<sup>+</sup> and CD8<sup>+</sup> T lymphocytes from infected mice: Characterization of T cell clones", (1990), *Journal of Immunology* 145, 702-710. PMID: 1973187.
3. **R.M. Johnson**, D.W. Lancki, A.I. Sperling, R.F. Dick, P.G. Spear, F.W. Fitch, and J.A. Bluestone. "A murine CD4<sup>+</sup>, CD8<sup>-</sup>, T cell receptor- $\gamma\delta$  T lymphocyte clone specific for *Herpes simplex virus* Glycoprotein I", (1992), *Journal of Immunology* 148, 983-988. PMID: 1310711.
4. **R.M. Johnson**, D.W. Lancki, and F.W. Fitch. "Accessory molecules involved in antigen-mediated cytotoxicity and lymphokine production by cytotoxic T lymphocyte subsets. I. Identification of functions for the T cell surface molecules Ly-6C and Thy-1", (1993), *Journal of Immunology* 151, 2986-2999. PMID: 8104217
5. R. Sciammas, **R.M. Johnson**, A.I. Sperling, W. Brady, P.S. Linsey, P.G. Spear, F.W. Fitch, and J.A. Bluestone. "Unique antigen recognition by a herpes virus-specific TCR $\gamma\delta$  cell", (1994), *Journal of Immunology* 152, 5392-5397. PMID: 8189058.
6. H.J. Dean, M.S. Morgyn, S.S. Terhune, **R.M. Johnson**, and P.G. Spear. "Viral determinants of the variable sensitivity of *Herpes simplex virus* Strains to gD-mediated interference", (1995), *Journal of Virology* 69, 5171-5176. PMID: 7609090.
7. **R.M. Johnson**. "Murine oviduct epithelial cell cytokine responses to *Chlamydia muridarum* infection include IL-12p70 secretion", (2004), *Infection and Immunity* 72, 3951-3960. PMID: 15213139.
8. D.E. Nelson, D.P. Virok, H. Wood, C. Roshick, **R.M. Johnson**, W.M. Whitmire, D.D. Crane, O. Steele-Mortimer, L. Kari, G. McClarty, and H.D. Caldwell. "*Chlamydial* IFN- $\gamma$  immune evasion is linked to host infection tropism", (2005), *Proceedings of the National Academy of Sciences U S A* 102, 10658-63. PMID: 16020528.
9. W.A. Derbigny, M.S. Kerr, and **R.M. Johnson**. "Pattern recognition molecules activated by *Chlamydia muridarum* infection of cloned murine oviduct epithelial cell lines", (2005), *Journal of Immunology* 175, 6065-75. PMID: 16237102.
10. W.A. Derbigny, S-C. Hong, M.S. Kerr, and **R.M. Johnson**. "*Chlamydia muridarum* infection elicits an interferon- $\beta$  response in murine oviduct epithelial cells dependent on TRIF and IRF3", (2007), *Infection and Immunity* 75, 1280-90. PMID: 17178782.
11. **R.M. Johnson**, M. Ristig, T. Overton, M. Lisker-Melman, O.W. Cummings and J. Aberg. "Safety and tolerability of sequential pegylated interferon- $\alpha$ 2a and tenofovir for treatment of

- chronic Hepatitis B infection in HIV+ individuals”, (2007), HIV Clinical Trials 8, 173-181. PMID: 17621464.
12. S.K. Gupta, **R.M. Johnson**, C. Saha, K.J. Mather, M.L. Greenwald, J.S. Waltz, J. Rehman, and M.P. Dube. “Improvement in HIV-related endothelial dysfunction using the anti-inflammatory agent salsalate: A pilot study”, (2008), AIDS 22, 653-661. PMID: 18317009.
  13. K. Jayarapu, M.S. Kerr, A. Katschke, and **R.M. Johnson**. “*Chlamydia muridarum*-specific CD4 T-cell clones recognize infected reproductive tract epithelial cells in an interferon-dependent fashion”, (2009) Infection & Immunity, 77:4469-79. PMID: 19667042.
  14. S.K. Gupta, **R.M. Johnson**, K.J. Mather, M. Clauss, J. Rehman, C. Saha, Z. Desta, and M.P. Dube. Anti-inflammatory treatment with pentoxifylline improves HIV-related endothelial dysfunction: A pilot study,” (2010), AIDS, 24(9):1377-80. PMID: 20559042.
  15. W.A. Derbigny, **R.M. Johnson**, K.S. Toomey, S. Ofner, and K. Jayarapu. “The *C. muridarum* induced interferon-beta response is dependent on the TLR3 receptor in murine oviduct epithelial cells”, (2010), Journal of Immunology, 185:6689-6697. PMID: 20974982.
  16. K. Jayarapu, M.S. Kerr, S. Ofner, and **R.M. Johnson**. “*Chlamydia*-specific CD4 T cell clones control *Chlamydia* replication in epithelial cells by nitric oxide dependent and independent mechanisms”, (2010), Journal of Immunology, 185:6911-6920. PMID: 21037093.
  17. **R.M. Johnson**, M.S. Kerr, and J.E. Slaven. “*Plac8*-dependent and *iNOS*-dependent T cell-mediated mechanisms clear *Chlamydia muridarum* infections from the genital tract”, (2012) Journal of Immunology, 188:1896-904. PMID: 22238459.
  18. **R.M. Johnson**, H. Yu, M.S. Kerr, J.E. Slaven, K.P. Karunakaran, and R.C. Brunham. “PmpG<sub>303-311</sub>, a protective vaccine epitope that elicits persistent cellular immune responses in *Chlamydia muridarum* immune mice”, (2012) Infection and Immunity. PMID: 22431650.
  19. S.K. Gupta, D. Mi, M.P. Dubé, C.K. Saha, **R.M. Johnson**, J.H. Stein, M.A. Clauss, K.J. Mather, Z. Desta, Z. Liu. “Pentoxifylline, Inflammation, and Endothelial Function in HIV-infected Persons: A Randomized, Placebo-Controlled Trial”, (2013), Plos One, 8(4):e60852. PMID: 23593327.
  20. **R.M. Johnson**, M.S. Kerr, and J.E. Slaven. “Perforin is detrimental to controlling *C. muridarum* replication *in vitro*, but not *in vivo*”, (2013) Plos One 8(5):e63340. PMID: 23691028.
  21. **R.M. Johnson**, M.S. Kerr, and J.E. Slaven. “An atypical CD8 T-cell response to *Chlamydia muridarum* genital tract infections includes T cells that produce interleukin-13”, (2014), Immunology, 142(2):248-57. PMID: 24428415.
  22. S. Hu<sup>1</sup>, M. Ghabril, T. Amet, N. Hu, D. Byrd, K. Yang, R Vuppalachchi, R. Saxena, M. Desai, J. Lan, **R. Johnson**, S. Gupta, N. Chalasani, Q. Yu. “HIV-1 coinfection profoundly alters intrahepatic chemokine but not inflammatory cytokine profiles in HCV-infected subjects”, (2014), Plos One, 9(2):e86964. PMID: 24516541.

23. **R.M. Johnson** and M.S. Kerr. “Modeling the transcriptome of genital tract epithelial cells and macrophages in healthy mucosa *versus* mucosa inflamed by *Chlamydia muridarum* infection”, (2015), *Pathogens and Disease*, 73(9): ftv100. PMID: 26519447.
24. **R.M. Johnson** and R.C. Brunham. “Tissue resident T cells as the central paradigm of *Chlamydia* immunity”, (2016), *Infection and Immunity*, 84(4):868-73. PMID: 26787715.

*Books, Chapters:*

1. P.G. Spear, M. Wittels, A.O. Fuller, D. WuDunn, and **R. Johnson**. "*Herpes simplex*: Pathway of entry into cells", 1989, In *Cell Biology of Virus Entry, Replication, and Pathogenesis*, R. Compans, A. Helenius, and M. Oldstone, Eds. (New York: Alan R. Liss), pp. 163-175.
2. **R.M. Johnson** and E.J. Brown, Chapter 9, “Cell-mediated immunity in host defense against infectious diseases”, 2000, In *Principles and Practice of Infectious Diseases*, fifth edition, G.L. Mandell, J.E. Bennett, and R. Dolin Eds. (New York: Churchill Livingstone Inc.), pp. 112-146.
3. **R.M. Johnson** and D.J. Ritchie, Chapter 13, “Antimicrobials”. In *Washington Manual of Medical Therapeutics*, thirtieth edition, 2001, S.Ahya, K. Flood, and S. Paranjothi Eds. (Philadelphia: Lippincott Williams & Wilkins).
4. **R.M. Johnson**, G. Barbarini, and G. Barbaro, “Kawasaki-like syndromes and other vasculitis syndromes in HIV<sup>+</sup> patients”, 2003, *AIDS (London)* 17;S77-82.
5. **R.M. Johnson**. “HIV and Hepatitis co-infections: Treatment guidelines”, 2007, HCV Advocate [www.hcvadvocate.org](http://www.hcvadvocate.org).
6. **R.M. Johnson**. “*Trichomonas vaginalis*”, 2009, In *Parasitology*, A.R. Satoskar, G. Simon, P. Hotez, M. Tsuji Eds. (Landes Bioscience, Georgetown).
7. **R.M. Johnson** and W.M. Geisler. “*Chlamydia* – the immunologic response to infection”, (2013), In *Issues in infectious diseases- Chlamydia*, C. Black Ed. (Karger Press, Basel).
8. **R.M. Johnson**. “Chlamydial infections”, (2013), In *Issues in infectious diseases- Chlamydia*, C. The Prokaryotes, 4th Edition, Eugene Rosenberg, Edward F. DeLong, Fabiano Thompson, Stephen Lory, Erko Stackebrandt Eds. (Springer Publishing Co., NY).

*Case reports:*

1. **R.M. Johnson**, J.R. Little, and G.A. Storch. “Kawasaki-like syndromes associated with Human Immunodeficiency Virus infection”, (2001), *Clinical Infectious Diseases* 32, 1628-34. PMID: 11340536.
2. **R.M. Johnson** and G.A. Storch. Reply to a letter to the editor, (2002), *Clinical Infectious Diseases* 34, 132-3.



3. **R.M. Johnson.** Reply to a letter to the editor, (2002), *Clinical Infectious Diseases* 34, 876-8.
4. A. Apisarnthanarak, **R.M. Johnson**, A.C. Braverman, and J.R. Russell. “*Cardiobacterium hominis* bioprosthetic mitral valve endocarditis presenting as septic arthritis”, (2002), *Diagnostic Microbiology and Infectious Diseases* 41, 79-81. PMID: 11821177.
5. E.R. Dubberke, B. Razavi, and **R.M. Johnson.** “*Serratia marcescens* necrotizing fasciitis in a bone marrow transplant patient”, (2002), *Infectious Diseases in Clinical Practice*, 11:25-27.
6. D.M Janowicz, **R.M. Johnson**, and S.K. Gupta. “Successful treatment of CMV ventriculitis immune reconstitution syndrome”, (2005), *Journal of Neurology, Neurosurgery and Psychiatry* 76, 891-892. PMID: 15897524.
7. V.M. Rosado-Odom, J. Daoud, **R. Johnson**, S.D. Allen, S.R. Lockhart, N. Iqbal, W.J. Shieh, S. Zaki, A.A. Sharfuddin. “Cutaneous presentation of progressive disseminated histoplasmosis nine years after renal transplantation: a case report”, (2013) *Transplant Infectious Disease*, Feb 6, 15(2):E64-9. PMID: 23387927.
8. C. Klochan, T. Anderson, D. Rose, R.K. Dimitrov, and **R.M. Johnson.** “Nearly fatal case of Whipple’s disease in a patient mistakenly on anti-TNF therapy”, (2013) *ACG Case Reports Journal*, *ACG Case Rep J* 2013; 1(1):25–28.