

**CURRICULUM VITAE**  
**R. William DePaolo, PhD**

**Personal Data**

Birthplace      Portland, Maine, U.S.A.  
 Citizenship     U.S.A.

**Education**

1995-1999      Bates College, Lewiston, ME  
                     B.S., Neuroscience,  
 1999-2004      Feinberg School of Medicine at Northwestern University, Chicago, IL  
                     Ph.D., Immunology & Microbial Pathogenesis,

**Postgraduate Training**

2004-2007      Research Associate, University of Chicago, Chicago, IL

**Faculty Positions Held**

2008-3/2011      Assistant Professor (Research Associate), Department of Medicine, Division of  
                          Gastroenterology, University of Chicago, Chicago, IL  
 4/2011-9/2016    Assistant Professor, Department of Molecular Microbiology and Immunology,  
                          University of Southern California, Keck School of Medicine, Los Angeles, CA  
 10/2016- present   Associate Professor, Department of Medicine, Division of Gastroenterology,  
                          University of Washington Medical Center, Seattle, WA

**Hospital Positions Held**

2014-2016      Associate Director, Graduate Program, Keck School of Medicine at USC  
 2015-2016      Director, Committee on Microbiome & Host Interaction in Disease, Children's Hospital LA,  
                          Keck School of Medicine and USC  
 2016-present    Director, Center for Microbiome Sciences & Therapeutics, University of Washington Medical  
                          Center, Seattle, WA

**Honors**

2002      Gordon Conference Travel Grant, Chemokines  
 2007      University of Chicago Pilot & Feasibility Award Digestive Disease Resource Center  
 2008      Best Scientific Talk, Biological Sciences Division Retreat, University of Chicago  
 2009      Best Scientific Talk, Biological Sciences Division Retreat, University of Chicago  
 2013      USC Liver Center Pilot & Feasibility Award  
 2015      Mentor of the Year, Keck School of Medicine  
 2016      Named Michael & Lynn Garvey Endowed Chair in Gastroenterology

**Board Certification**

none

**Current License(s) to Practice**

none

**Professional Organizations**

Member, American Society of Microbiology  
 Member, American Association of Immunologists  
 Member, Society for Mucosal Immunology

**Teaching Responsibilities**

2011-2016      Research Supervisor, Directed Research, Undergraduate Program, University of Southern  
                          California, Los Angeles, CA

2012-2015 Instructor, Infection and Host Responses, Graduate Program, Keck School of Medicine, Los Angeles, CA  
2012-2016 Course Director & Instructor, Topics in Cellular & Molecular Immunology, Graduate Program, Keck School of Medicine, Los Angeles, CA  
2013-2015 Instructor, Research Approaches to Biomedical Problems, Undergraduate Program, University of Southern California, Los Angeles, CA  
2016 Instructor, Introduction to Infectious Disease, 2<sup>nd</sup> year medical students, Keck School of Medicine, Los Angeles, CA

#### Mentor Activities

##### Postdoctoral Research Associates

2011-2013 Karishma Kamdar, Ph.D.  
2012-2014 Jee-Hyun Kim, Ph.D.  
2015-2016 Robert Rankin, PhD  
2017-present Andrew Johnson, PhD

##### Pediatric Gastroenterology Clinical Fellows

2011-2013 Vivien Nguyen, M.D.  
2014-2016 Arathi Lakhole, M.D.  
2015-2017 Fotini Tania Mitsinikos, M.D.

##### Doctoral Advisor

2014-present Denise Chac  
2015-present Melissa Kordahi

##### Master's Advisor

2013-2015 Vrishika Kulur  
2010-2012 Yui Sugiura

##### Medical Student Required Scholarly Project Mentor

2012-2013 Cynthia Guterrez  
2013-2015 Gabriela Moriel  
2013-2015 Mariana Martinez  
2014-2016 Susanna Sandoval

##### K08 MD Faculty Trainee Mentoring Committee

2011-2015 Yuhua Zheng, MD  
2012-present Ling Shao, MD/PhD

##### Pediatric GI Fellow Scholarship Oversight Committee Member

2013-2013 Rabea Alholsh, M.D. (mentor: Brent Polk)  
2014-2016 Vik Anand, M.D. (mentor: Grace Aldrovandi)  
2015-2017 Sharon Tam, M.D. (mentor: Brent Polk)

#### **Editorial Responsibilities**

2012-2014 Immunity & Diseases

#### **Special National Responsibilities**

2012-2016 Executive Committee, ImmunologyLA Conference  
2015 Study Section, Crohn's & Colitis Foundation of America  
2015 Study Section, Baxter Foundation Grants  
2015 Study Section, Rose Hills Foundation  
2016 Ad Hoc Reviewer, NIH study section Cellular and Molecular Immunology B (CIMPB)  
2017 Ad Hoc Reviewer, NIH Study section Vaccines Host Defense and Inflammation  
2017 Ad Hoc Reviewer, NIH study section Cellular and Molecular Immunology B (CIMB)

2017 Ad Hoc Reviewer, NIH study section Gastrointestinal Mechanism and Pathobiology (GMPB)  
2017 Ad Hoc Reviewer, NIH study section Special Emphasis Panel ZRG1 DKUS (91)S

### **Special Local Responsibilities**

2011-2015 Member, IACUC, USC, Keck School of Medicine  
2011-2014 Member, Institutional Biosafety Committee, Keck School of Medicine  
2012-2015 Interviewer, Graduate Admissions Program, Keck School of Medicine  
2013-2014 Member, Fellowship Selection Committee, Children's Hospital LA  
2013-2016 Interviewer, Chief of Pediatric Gastroenterology Interviews, Children's Hospital LA  
2015 Judge, Medical Student Research Day, Keck School of Medicine  
2015 Co-director, PhD Admissions Committee, Keck School of Medicine  
2016 Ethics Course Leader, Keck School of Medicine

### **Research funding**

#### Current

PI, Endogenous TLR1 signals prevent uncontrolled innate immunity in the colon, NIDDK/NIH R01 (DK104908), 04/01/2015 – 03/31/2020

PI, HIV-exposed microbiome impacts the severity of co-infections. NICHD/NIH R21 (HD094639), 09/01/2017-08/31/2019

#### Pending

PI, Art & Science, Rainin Foundation, off cycle review.

PI, Modulation of pathogenic bacteria and commensal microbiota by polyunsaturated fatty acids, NCCIH/NIH (R01)

PI, TLR6 signaling in chronic inflammation and colorectal cancer, NCI/NIH, R01

#### Past

PI, Manipulation of the Microbiome to Prevent Colorectal Cancer, Rose Hills Foundation, 07/01/2014-06/30/2016

PI, Determine the role of TLR1 signaling in chronic inflammation and colorectal cancer, NCI/NIH R21 (CA182595), 08/13/2014 – 07/31/2016

PI, Committee on Host-Microbe Interactions in Disease (CMHID), USC Office of Research & Provost Collaboration Fund, 06/01/2015-07/31/2016

PI, The impact of TLR1 on dysbiosis and intestinal inflammation, NIDDK/NIH R03 (DK097442), 01/2013-12/31/2014

PI, Determine the impact of TLR1 and TLR6 signaling in development of colorectal cancer, NIDDK/NIH P30 (DK048522 Satellite Project), 03/01/13-02/28/14

PI, Role of TLR6 and JNK during *Y. enterocolitica* infection, NIDDK/NIH K01 (DK1082725), 02/01/09-01/31/14

PI, Immune-regulation by *Y. enterocolitica* virulence factor LcrV, NIDDK/NIH P30 (DK42086 Satellite Project), 01/01/08-12/31/08

#### Training Grants

Mechanism underlying immune-modulatory effects of LcrV, NIAID/NIH, F32 (AI068370), 07/1/06-07/31/07

## Bibliography

### Peer Reviewed

1. **DePaolo RW**, Rollins BJ, Kuziel W, and Karpus WJ. CCL2 and its receptor regulate mucosal APC production of IL-12 and TGF- $\beta$  in high dose oral tolerance. *Journal of Immunology*. 2003 Oct 1;171(7): 3560-7.
2. **DePaolo RW**, Lathan R and Karpus WJ. CCR5 is involved in high dose oral tolerance by regulating mucosal CCL2. *Journal of Immunology*. 2004. Jul 1;173(1):314-20.
3. Overheim KA, **DePaolo RW**, DeBord KL, Morrin EM, Green NM, Anderson D, Brubaker RR, Jabri B and Schneewind O. Plague vaccines lacking the immune modulatory properties of rLcrV. *Infection and Immunity*. 2005 Aug; 73(8):5152-59.
4. Marketon, MM<sup>§</sup>, **DePaolo RW**<sup>§</sup>, DeBord KL, Jabri B. and Schneewind O. Plague bacteria target immune cells during infection. *Science*. 2005 Sep 9; 309(5741):1739-41.  
§, authors contributed equally  
*Highlighted in Faculty of 1000 web-based review*
5. **DePaolo RW**, Lathan R and Karpus WJ. CCL2 is required for control of murine gastric *Salmonella* infection. *Infection and Immunity*. 2005 Oct 1; 73(10):6514-22.
6. DeBord KL, Anderson DM, Marketon MM, Overheim KA, **DePaolo RW**, Ciletti N, Jabri B, DeBord KL and Schneewind O. rV10 Immunization of Mice - Immunogenicity and Protective Immunity against Bubonic and Pneumonic Plague. *Infection and Immunity*. 2006 Aug 1; 74(8):4910-14.
7. **DePaolo RW**, Tang F, Kim I, Han M, Levin N, Ciletti N, Anderson DM, Schneewind O and Bana Jabri. TLR6 drives differentiation of tolerogenic DC and contributes to LcrV-mediated plague pathogenesis. *Cell Host Microbe*. 2008 Oct 16;4(4):350-61.
8. Elhofy A<sup>§</sup>, **DePaolo RW**<sup>§</sup>, Lira SA, Lukacs NW and Karpus WJ. Mice deficient for CCR6 fail to control chronic experimental autoimmune encephalomyelitis. *J. Neuroimmunol*. 2009 Aug 18; 213: 91-9.  
§, authors contributed equally
9. **DePaolo RW**, Abadie V, Tang F, Hall J.A., Wang W., Marietta EV, Murray J.A, Belkaid Y. and Jabri B. Co-adjuvant effects of retinoic acid and IL-15 promote inflammatory immune responses to dietary antigens. *Nature*. 2011 Mar 10; 471(7337): 220–224.  
*Highlighted in Faculty of 1000 web-based review*
10. **DePaolo RW**<sup>§</sup>, Khakpour S, Wang W, Antonopoulous D, and Jabri B<sup>§</sup>. A specific role for TLR1 in protective T<sub>H</sub>17 immunity during mucosal infection. *J. Ex. Med*. 2012 Jul 30; 209:1437-44  
§, co-corresponding authors  
  
*This article was featured in Nature Medicine Research Highlights*  
*Swami M. Nature Medicine 18, 1349 (2012)*  
*Highlighted in Faculty of 1000 web-based review*
11. Kamdar K, Ngyuen V and **DePaolo RW**. Role of TLRs in intestinal homeostasis. *Virulence*. 2013 Jan 18;4(3):207-212. Review
12. Sugiura Y, Khakpour S, Young G, Karpus WJ and **DePaolo RW**. Generation of anti-*Yersinia* mucosal immunity is dependent upon TLR1-induced CCL20. *Mucosal Immunology*. 2013 Nov; 6(6):1101-9.

13. Michail S, Bultron G, **DePaolo RW**. Genetic variants associated with Crohn's disease. *Appl Clin Genet*. 2013 Jul 16; 6:25-32. Review
14. Nguyen V, Pearson K, Kim J, Kamdar K, and **DePaolo RW**. Retinoic acid can exacerbate T cell intrinsic TLR2 activation to promote tolerance. *Plos One*. 2015 Mar; 10(3):1-14
15. Kamdar K, Khakpour S, Chen J, Leone V, Brulc J, Mangatu T, Antonopoulos DA, Chang EB2, Kahn SA, Kirschner BS, Young G, and **DePaolo RW**. Genetic mutations in innate immunity alters the metabolic milieu of inflamed tissue promoting chronic inflammation and anti-commensal immunity. *Cell Host & Microbe*. 2016. Jan 13; 19(1): 21-31  
*This article was featured and previewed in Cell Host & Microbe Abt M, Cell Host & Microbe, 2016. Jan 13: 19(1)3-5*
16. Chac D and **DePaolo RW**. The dynamic microbial landscape of the intestine and the impact on probiotic therapy. *J Prob Health*. 2015; 4(1):137-141
17. Okazaki S, Loupakakis F, Stintzing S, Shu C, Zhang W, Yang D, Ning Y, Sunakawa Y, Stremitzer S, Matsusaka S, Berger MD, Parekh A, West JD, Miyamoto Y, Suenaga M, Schirripa M, Cremolini C, Falcone A, Heinemann V, **DePaolo RW** and Lenz HJ. Clinical significance of TLR1 I602S polymorphism for patients with metastatic colorectal cancer treated with FOLFIRI plus bevacizumab. *Molecular Cancer Therapeutics*. 2016. May; 15(7):1740-1745.
18. Okazaki S, Stintzing S, Sunakawa Y, Cao S, Zhang W, Yang D, Ning Y, Matsusaka S, Berger MD, Miyamoto Y, Suenaga M, Schirripa M, West JD, Gopez R, Akihito T, Ichikawa W, Heinemann V, **DePaolo RW**, Lenz HJ. Predictive value of TLR7 polymorphism for cetuximab-based chemotherapy in patients with metastatic colorectal cancer. *Int J Cancer*. 2017 May 31; Epub.
19. Johnson AMF and **DePaolo RW**. Window-of-opportunity: neonatal gut microbiota and atopy. *Hepatobiliary Surgery and Nutrition*. 2017 June; 6(3):190-192.

#### Manuscripts submitted.

Kim J, Rankin CR, Chac D, and **DePaolo RW**. Restoring microbial ecology suppresses colorectal carcinogenesis. *J. Exp. Medicine* .submitted July 1<sup>st</sup>, 2017

Kamdar K, Kulur V, Myers K, and **DePaolo RW**. Innate recognition of the microbiota restrains epithelial proliferation and prevents chronic inflammation. *J. Immunology*. submitted July 10<sup>th</sup> 2017

#### Book Chapters

Kordahi M, & **DePaolo RW**. Chapter 10. The microbiome and associated innate immune responses in colorectal cancer In; Mechanisms underlying host-microbiome interactions in pathophysiology of human diseases, part of r Physiology in Health and Disease Series, Springer Press. *In press*

#### Other publications:

1. Plague and Hantavirus Outbreaks, NBC's The Today Show, 2012
2. Gut Instincts, Bates College Magazine, 2013
3. Is it safe to sit on a public toilet? BuzzFeed Internet News, 2014
4. How dirty is your cell phone? BuzzFeed Internet News, 2015
5. "What to do when you can't quite go", Huffington Post, 2015.  
[http://www.huffingtonpost.com/2015/04/07/constipation-relief-strategies\\_n\\_7012696.html](http://www.huffingtonpost.com/2015/04/07/constipation-relief-strategies_n_7012696.html)

6. Caffeine and Diarrhea, Huffington Post Contributor, 2015. [http://www.huffingtonpost.com/2015/06/11/coffee-laxative-effect-makes-you-poop\\_n\\_7546170.html](http://www.huffingtonpost.com/2015/06/11/coffee-laxative-effect-makes-you-poop_n_7546170.html)
7. The best way to clean your grimy, bacteria-laden cellphone, 2016. <http://www.cbsnews.com/news/the-best-way-to-clean-your-grimy-bacteria-laden-cellphone/>
8. Special Edition Germs and Everyday Items, Sacramento News Radio, 2016
9. Hidden Bacteria Buzzfeed Internet News, 2016

### **Invited Lectures**

- 2005 Wellcome Trust and Cell Publishing: Host-pathogen interaction. Cambridge, England
- 2006 XII International Celiac Disease Symposium. New York, New York.
- 2008 Keystone Conference: Innate Immunity: Signaling Mechanisms. Keystone, Colorado
- 2009 Keystone Conference: Innate, Adaptive and Regulatory Immune Responses to Intestinal Microbiota (A6). Taos, New Mexico
- 2011 Keystone Conference: Mucosal Immunology. Vancouver, British Columbia, Canada
- 2011 La Jolla Immunology Conference. La Jolla, California
- 2012 Department of Microbiology, University of California-Irvine, Irvine, California
- 2012 ImmunologyLA, Los Angeles, California
- 2013 Department of Gastroenterology, University of Washington, Seattle, Washington
- 2013 Western Association of Physicians. Carmel, California
- 2014 La Jolla Institute of Allergy and Immunology, La Jolla, California
- 2014 Department of Allergy and Infectious Disease, University of Washington, Seattle,
- 2015 Microbiome Symposium, The Saban Research Institute, Los Angeles, California
- 2015 Sci | Art Center, University of California Los Angeles, Los Angeles, California
- 2015 Latino Medical Student Association, Workshop Organizer & Speaker, Los Angeles, California
- 2015 Institute for Society and Genomics, University of California Los Angeles, Los Angeles, California
- 2015 Southern California Environmental Health Science Center, Los Angeles, California
- 2016 LA County Division of Infectious Disease, Los Angeles, California
- 2016 Current Topics and Methods in Microbiome Research, Center for AIDS Research and the Global Center for Integrated Health of Women, Adolescents, & Children, Seattle Washington
- 2016 ASM Beneficial Microbes, Seattle, Washington
- 2016 Global Women Adolescent and Children's Health, Seattle, Washington
- 2016 Center for AIDS Research (CFAR), Seattle, Washington
- 2017 Mucosal Immunology Systems Meeting, Banff, Canada
- 2017 Department of Pathology, University of Madison-Wisconsin, Madison, Wisconsin
- 2017 HIV Mucosal Immunology Group, Seattle, Washington
- 2017 School of Art + Art History + Design, University of Washington, Seattle, Washington
- 2017 Emerging Themes, NIH, Bethesda, MD
- 2017 Regional Gastrointestinal Meeting, Boise, Idaho
- 2017 3<sup>rd</sup> International Microbiome Conference; Microbiome in HIV Pathogenesis, Treatment and Prevention, Virology Education, Rockville, Maryland
- 2017 Center for Infectious Disease Research (CIDR), Seattle, Washington