



## Conditions Treated:

## Research Areas:

- *Infectious Diseases*
- *Basic Immunology*
- *Cellular and Molecular Biology*
- *Immunobiology*
- *Inflammation*
- *Innate Immunity*
- *Interferons and Cytokines*
- *Molecular Immunology*
- *Myeloid Cells*
- *NK cells*

## Research Interests

We study mechanisms of immune subversion and immune regulation during bacterial infections and other disease settings. We dissect strategies that microbes have evolved to thwart or manipulate immune responses and work to define host immune regulatory circuits that are manipulated by pathogens. Our studies focus on innate immune responses during mucosal and systemic infections. We are actively pursuing translation of information from our studies towards improved therapies for infectious, inflammatory, cancerous, and other diseases.

## Education

1991 Kansas State University, BA, Microbiology

1998 University of Washington, Seattle, PhD, Immunology

## Fellowship

1999 - 2004 University of California - Berkeley, Department of Molecular and Cell Biology

## Teaching or Professional Positions

No current positions.

## Industry Relationships & Collaborations

National Jewish Health physicians and scientists may collaborate with pharmaceutical or other industries to develop medical and scientific breakthroughs or to provide education on trends in quality medical practice and outcomes to physicians and health professionals around the country. National Jewish Health maintains a strict [conflict of interest policy](#) to ensure that all potential

conflicts are clearly visible and that management plans are put in place in order to further innovation and education while ensuring the protection of our patients and the integrity of our research. National Jewish Health publicly discloses any payment to our physicians or scientists. View this faculty member's industry [relationships and collaborations](#).

### **Affiliations with the University of Colorado Denver**

Associate Professor, Departments of Immunology and Microbiology, University of Colorado Denver  
Training Faculty, Biomedical Sciences Program, Reproductive Sciences Program, University of Colorado Denver  
Member, University of Colorado Cancer Center, University of Colorado Denver

### **Professional Memberships**

American Association of Immunologists  
Society for Natural Immunity  
Society for Mucosal Immunology  
Cytokine and Interferon Society

### **Awards & Recognition**

Editorial Boards: Frontiers in NK cell Biology, Frontiers in Microbial Immunology, PLoS ONE, Journal of Immunology.

### **Publications**

Rayamajhi M, Humann J, Penheiter K, Andreasen K and Lenz LL. 2010. Induction of IFN $\alpha\beta$  enables *Listeria monocytogenes* to suppress macrophage activation by IFN $\gamma$ . *J. Exp. Med.* 207:327-37.

Humann J and Lenz LL. 2010. Activation of naïve NK cells in response to *Listeria monocytogenes* requires IL-18 and contact with infected dendritic cells. *J. Immunol.* 184:5172-8.

A LysM and SH3-Domain Containing Region of the *Listeria monocytogenes* p60 Protein Stimulates Accessory Cells to Promote Activation of Host NK Cells. Schmidt RL, Filak HC, Lemon JD, Potter TA, Lenz LL. *PLoS Pathog.* 2011. Nov;7(11):e1002368.

Rayamajhi M, Delgado C, Condon TV, Riches DW, and Lenz LL. 2012. "Lung B cells promote early pathogen dissemination and hasten death from inhalation anthrax" *Mucosal Immunol.* in press

Cole C, Thomas S, Filak H, Henson PM, and Lenz LL. 2012. "Nitric oxide increases susceptibility of toll-like receptor-activated macrophages to spreading *Listeria monocytogenes*." *Immunity* in press.

### **Doctor's Contact Information**

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### **Locations**

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