

# Quinn Roth-Carter, PhD

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Northwestern University  
Department of Pathology  
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## Education

- Undergraduate**      **Lewis & Clark College, Portland, OR**  
B.A. in Biochemistry and Molecular Biology, 2012
- Graduate**            **Oregon Health & Science University, Portland, OR**  
PhD in Cell and Developmental Biology, June 2018  
Advisor: Dr. David Jacoby
- Postdoctoral**        **Northwestern University, Chicago, IL**  
Department of Pathology, Northwestern University  
Postdoctoral Advisor: Dr. Kathleen Green

## Professional Experience

- 2011-2012**            **Student Scientist**, Dr. Daniel Marks Laboratory, Department of Pediatrics, Oregon Health & Science University, Portland, Or
- 2011**                    **Teaching Assistant**, Lewis & Clark College, Portland, OR
- 2010**                    **Student Scientist**, Dr. Gary Reiness Laboratory, Department of Biology, Lewis & Clark College, Portland, OR

## Memberships

- 2015 – Present        International Eosinophil Society  
2012 – Present        American Association for the Advancement of Science  
2016                    Society for Neuroscience

## Publications

### Peer Reviewed Journal Articles:

Drake, M. G., Lebold, K. M., **Roth-Carter, Q. R.**, Pincus, A. B., Blum, E. D., Proskocil, B. J., Jacoby, D. B., Fryer, A. D. & Nie, Z. Eosinophil and airway nerve interactions in asthma. *J. Leukoc. Biol.* (2018).  
doi:10.1002/JLB.3MR1117-426R

Kamimae-Lanning, A. N., Krasnow, S. M., Goloviznina, N. A., Zhu, X., **Roth-Carter, Q. R.**, Levasseur, P. R., Jeng, S., McWeeney, S. K., Kurre, P. & Marks, D. L. Maternal high-fat diet and obesity compromise fetal hematopoiesis. *Mol Metab* **4**, 25–38 (2015).

Zhu, X., Krasnow, S. M., **Roth-Carter, Q. R.**, Levasseur, P. R., Braun, T. P., Grossberg, A. J. & Marks, D. L. Hypothalamic signaling in anorexia induced by indispensable amino acid deficiency. *Am. J. Physiol. Endocrinol. Metab.* **303**, E1446–58 (2012).

### Text Book Chapter:

**Roth-Carter, Q. R.**, Jacoby, D. B. & Nie, Z. Interactions of eosinophils with nerves. *Methods Mol. Biol.* 1178, 215–229 (2014).

## Abstracts:

**Roth-Carter, Q. R.,** Lou, H., Naidoo, K., Forbes-Blom, E., Lee, J. J., Gleich, G., Fryer, A. D., Jacoby, D. B., (2017) Eosinophil peroxidase increases thymic stromal lymphopoietin expression in keratinocytes. International Eosinophil Society Symposium, Gothenburg, Sweden

**Roth-Carter, Q. R.,** Lee, J. J., Fryer, A. D. Jacoby, D. B., (2016) Eosinophils mediate itch in atopic dermatitis. Society for Neuroscience Annual Meeting, San Diego, CA 2016

**Roth-Carter, Q. R.,** Lee, J. J., Fryer, A. D., Jacoby, D. B., (2016) Eosinophils increase thymic stromal lymphopoietin expression in keratinocytes. Montana Skin Symposium, Gleneden Beach, OR 2016

**Roth-Carter, Q. R.,** Fryer, A. D., Jacoby, D. B., (2016) Eosinophils regulate thymic stromal lymphopoietin expression in atopic dermatitis. Research Week at Oregon Health & Sciences University 2016

**Roth-Carter, Q. R.,** Fryer, A. D., Lee, N. A., Lee, J. J., Jacoby, D. B. (2015) Eosinophil Stimulate Neuroplasticity in Sensory Nerves. International Eosinophil Society Symposium, Chicago, Illinois, 2015

**Roth-Carter, Q. R.,** Fryer, A. D., Jacoby, D. B., (2015) Eosinophils mediate sensory neuroplasticity. Research Week at Oregon Health & Sciences University 2015

**Roth-Carter, Q. R.,** Fryer, A. D., Jacoby, D. B., (2014) Eosinophils stimulate sensory nerve neuroplasticity in vitro. Research Week at Oregon Health & Sciences University 2014

**Roth-Carter, Q. R.,** Zhu, X., Levasseur, P.R., Marks, D. L. (2012). Consuming a diet that is deficient in an indispensable amino acid results in an increase in CRH gene expression in the hypothalamus. Oregon Academy of Sciences, 2012

## Presentations

- 2017 Northwest Epithelial Biology Meeting, Seattle, WA  
“Eosinophil peroxidase increases cytokine expression in epithelial cells through lysophosphatidic acid and IL-1”
- 2016 Northwest Epithelial Biology Meeting, Seattle, WA  
“Eosinophils and Itch in Atopic Dermatitis”
- 2015 Northwest Epithelial Biology Meeting, Vancouver, BC  
“Eosinophils regulate thymic stromal lymphopoietin expression in epithelial cells”

## Honors and Awards

- 2017 International Eosinophil Society Symposium Travel Grant Award
- 2017 Oregon Health & Sciences University Research Week Best Poster Award
- 2016 - Present Ruth L. Kirschstein T32 Training Grant, Oregon Health and Science University, Department of Dermatology
- 2014 – 2016 Ruth L. Kirschstein T32 Training Grant, Oregon Health and Science University, Department of Pulmonary and Critical Care Medicine
- 2013 NSF GRFP Honorable Mention
- 2013 – 2016 ARCS Scholar
- 2011 – 2012 Murdock Scholarship
- 2010 Rodgers Research Scholarship

## Teaching and Mentoring

- 2015 Undergraduate Mentor, Summer Equity Internship Program
- 2011 Teaching Assistant, BIO 312 Molecular Biology Lab, Lewis and Clark College

## Volunteering

2013-2016

Murdock Summer Seminar Series Lecture “Applying to graduate school from a student’s perspective”

2015

Intel Northwest Science Fair Judge