

# DANIELLE GERMUNDSON-HERMANSON, PHD

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West Valley City  
Utah, 84119

## EDUCATION

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### **PhD, Clinical & Translational Sciences** Aug. 2023

- Department of Pathology,  
University of North Dakota  
School of Medicine & Health Sciences

### **BS, Medical Laboratory Science** May 2018

- Department of Medical Laboratory Science,  
University of North Dakota  
School of Medicine & Health Sciences
  - *Summa cum laude*
  - *Minor in communications*

## RESEARCH & LABORATORY EXPERIENCE

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### **Postdoctoral Researcher** Jan. 2024-Present

- Department of Neurobiology,  
University of Utah School of Medicine  
Salt Lake City, Utah
- Dr. Jessica Osterhout, PI

### **Graduate Research Assistant** Aug. 2018-Aug. 2023

- Department of Pathology,  
University of North Dakota  
School of Medicine & Health Sciences,  
Grand Forks, North Dakota
- Dr. Kumi Nagamoto-Combs, PI
  - *Dissertation Title: Intracranial mast cell activation and central histaminergic dysregulation in food allergy triggered neuropathology and behavioral changes.*

### **Medical Laboratory Science Intern** Oct. 2017-May 2018

- Pathology & Laboratory Services,  
Altru Hospital, Grand Forks, North Dakota
  - *Responsible for performing timely and accurate laboratory testing for patients in areas of hematology, coagulation, blood banking, chemistry, urinalysis, and microbiology.*

## PEER REVIEWED PUBLICATIONS

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Brishti A, **Germundson-Hermanson DL**, Smith NA, Kearney AE, Warda Y, Nagamoto-Combs K. Asymptomatic sensitization to a cow's milk protein induces sustained neuroinflammation and behavioral changes with chronic allergen exposure. *Front Allergy*. 2022 Sep 7;3:870628. PMID: PMC9490182

**Germundson DL**, Nookala S, Smith NA, Warda Y, Nagamoto-Combs K. HLA-II Alleles Influence Physical and Behavioral Responses to a Whey Allergen in a Transgenic Mouse Model of Cow's Milk Allergy. *Front Allergy*. 2022 Apr 14;3:870513. PMID: PMC9234862

**Germundson DL**, Nagamoto-Combs K. Potential Role of Intracranial Mast Cells in Neuroinflammation and Neuropathology Associated with Food Allergy. *Cells*. 2022 Feb 20;11(4):738. PMID: PMC8870724

Smith NA, **Germundson DL**, Gao P, Hur J, Floden AM, Nagamoto-Combs K. Anxiety-like behavior and intestinal microbiota changes as strain- and sex-dependent sequelae of mild food allergy in mouse models of cow's milk allergy. *Brain Behav Immun*. 2021 Jul;95:122-141. PMID: PMC6646667

**Germundson DL**, Vendsel LP, Nagamoto-Combs K. Region-specific regulation of central histaminergic H3 receptor expression in a mouse model of cow's milk allergy. *Brain Res*. 2020 Dec 15;1749:147148. PMID: PMC8007474

Smith NA, **Germundson DL**, Combs CK, Vendsel LP, Nagamoto-Combs K. astrogliosis associated with behavioral abnormality in a non-anaphylactic mouse model of cow's milk allergy. *Front Cell Neurosci*. 2019 Jul 16;13:320. PMID: PMC6646667

**Germundson DL**, Smith NA, Vendsel LP, Kelsch AV, Combs CK, Nagamoto-Combs K. Oral sensitization to whey proteins induces age- and sex-dependent behavioral abnormality and neuroinflammatory responses in a mouse model of food allergy: a potential role of mast cells. *J Neuroinflammation*. 2018 Apr 23;15(1):120. PMID: PMC5913881

## BOOK CHAPTERS

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**Germundson DL**, Nagamoto-Combs K. Isotype-Specific Detection of Serum Immunoglobulins Against Allergens. *Methods Mol Biol*. 2021; 2223:159-167. PMID: PMC8713595.

## HONORS & AWARDS

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### Best Poster Award

Apr. 2023

- Frank Low Research Day
  - *Recognized during Frank Low Day, a University of North Dakota School of Medicine & Health Sciences-wide event in the Graduate Student category.*

### Regional Three Minute Thesis, Finalist

Mar. 2023

- Western Alliance of Graduate Schools (WAGS)
  - *Advanced to the finalist round of the WAGS Three Minute Thesis competition in Portland, OR.*

### Three Minute Thesis Award

Jan. 2023

- University of North Dakota School of Graduate Studies
  - *First place winner of UND-wide event for three-minute summary of thesis work to non-expert audience.*

### Data Blitz Award

Sep. 2022

- Host-Pathogen CoBRE Symposium
  - *Awarded for an outstanding four-minute “mini-talk” during the CoBRE Symposium.*

### First Place Poster Award

Apr. 2022

- Frank Low Research Day
  - *Recognized during Frank Low Day, a University of North Dakota School of Medicine & Health Sciences-wide event in the Graduate Student category.*

### Trainee Professional Development Award

Nov. 2021

- Society for Neuroscience (SfN)
  - *Presented to promising trainee members and provided \$1,000 towards travel to SfN’s annual meeting.*

### Graduate Poster Award

Sep. 2021

- Host-Pathogen CoBRE Symposium
  - *Awarded for an outstanding poster presentation during the CoBRE’s annual symposium.*

### First Place Poster Award

Apr. 2021

- Frank Low Research Day
  - *Recognized during Frank Low Day, a University of North Dakota School of Medicine & Health Sciences-wide event in the Graduate Student category.*

### **First Place Presentation Award**

Mar. 2021

- Graduate Research Achievement Day
  - *Awarded at the annual University of North Dakota campus-wide event in the Natural Sciences category.*

### **Second Place Poster Presentation**

Mar. 2020

- Graduate Research Achievement Day
  - *Awarded at the annual University of North Dakota campus-wide event in the Natural Sciences category.*

### **Barbara Ann Earwicker Award**

Apr. 2018

- North Dakota Academy of Sciences
  - *Recognized for excellence in research and scientific communication during an oral presentation of research.*

## **SELECTED SCIENTIFIC PRESENTATIONS**

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**Germundson-Hermanson DL et al. (2023)** “Histamine 3 receptor antagonism mitigates neuroinflammation and depression-like behavior in a mouse model of food allergy.”

- Poster presentation for the **American Association of Immunologists Meeting**, Washington, D.C.

**Germundson-Hermanson DL et al. (2022)** “Cortical demyelination and depression-like behavior are associated with histaminergic dysregulation in a mouse model of peripheral inflammation.”

- Poster presentation for the **Society for Neuroscience Meeting**, San Diego, CA.

**Germundson DL et al. (2021)** “Brain mast cell accumulation and activation in an asymptomatic food allergy mouse model with continuous allergen consumption.”

- Poster presentation for the **American Association of Immunologists Meeting**, Portland, OR.

**Germundson DL et al. (2021)** “Repeated allergen exposure triggers behavioral and neuroinflammatory changes in a mouse model of asymptomatic cow’s milk allergy.”

- Virtual poster presentation for the **Society for Neuroscience Meeting**.

**Germundson, DL et al. (2021)** “Repeated allergen exposure triggers neuroinflammation and behavioral changes in a mouse model of asymptomatic cow’s milk allergy.”

- Virtual oral presentation for the **INBRE Program Meeting**.

**Germundson, DL et al. (2021)** “Repeated allergen exposure causes depressive-like behavior and neuroinflammatory changes in a mouse model of non-anaphylactic cow’s milk allergy.”

- Virtual poster presentation for the **Psychoneuroimmunology Research Society Meeting**.

**Germundson, DL et al. (2021)** “Alterations in blood brain barrier permeability after chronic allergen exposure in a mouse model of mild cow’s milk allergy.”

- Virtual poster presentation for the **Society for Neuroscience Global Connectome**.

**Germundson, DL et al. (2019)** “HLA specific clinical and behavioral responses in a transgenic mouse model of cow’s milk allergy.”

- Poster presentation for **Society for Neuroscience**, Chicago, IL.

## **CAMPUS & COMMUNITY INVOLVEMENT**

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**R-COOL-Health Scrubs Academy** Jun. 2023

- Neuroscience Section Leader
  - *Developed hands-on learning activities related to neuroscience to introduce rural junior high students to a higher education experience.*

**Committee on Resources in Education** 2022-2023

- Student Member
  - *Provided insight and identified solutions regarding educational resources for students, faculty, and staff at the University of North Dakota School of Medicine & Health Sciences.*

**Biomedical & Health Sciences Curriculum Committee** 2018-2020

- Student Member
  - *Assisted in developing new and existing departmental curriculums at the University of North Dakota School of Medicine & Health Sciences.*

**Eastern Regional North Dakota Science Fair Judge** 2018-2023

- Volunteer
  - *Judge at local, regional, and state science fairs in North Dakota.*

## **CERTIFICATIONS & PROFESSIONAL SOCIETY MEMBERSHIP**

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**American Association of Immunologists** 2021-Present

- Trainee member

**Society for Neuroscience** 2019-2023

- Trainee member

**American Society for Clinical Pathology** 2018-Present

- Board certified Medical Laboratory Scientist