

# Julie Anne Eggenberger

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## EDUCATION

Icahn School of Medicine at Mount Sinai, Graduate School of Biomedical Sciences  
Ph.D. Biomedical Sciences 2014 – 2020

University of Wisconsin-Madison, College of Letters and Science  
B.S. Biology 2006 – 2010

## RESEARCH EXPERIENCE AND TRAINING

*Postdoctoral Fellow* | Department of Immunology February 2020 – Present  
University of Washington  
Advisor: Michael Gale Jr., Ph.D.

- Project: Defining maternal decidual immunity and the developmental consequences of Zika virus infection during first-trimester pregnancy

*Ph.D. Student* | Graduate School of Biomedical Sciences May 2015 – December 2019  
Icahn School of Medicine at Mount Sinai, Department of Microbiology  
Thesis Advisor: Benjamin tenOever, Ph.D.

- Thesis project: Characterizing the biological conflicts between development and innate immunity

*Ph.D. Rotation Student* | Graduate School of Biomedical Sciences March 2015 – May 2015  
Icahn School of Medicine at Mount Sinai, Department of Microbiology  
Principal Investigator: Dusan Bogunovic, Ph.D.

- Rotation project: Investigating the role of influenza A virus protein NS1 in the regulation of IFN-I signaling by human ISG15/USP18

*Ph.D. Rotation Student* | Graduate School of Biomedical Sciences January 2015 – March 2015  
Icahn School of Medicine at Mount Sinai, Department of Microbiology  
Principal Investigator: Peter Palese, Ph.D.

- Rotation project 1: Engineering and characterizing a recombinant, miRNA-targeted reporter influenza A virus for tissue-specific replication
- Rotation project 2: Developing a novel influenza B vaccine strategy through the identification of mutations in a recombinant influenza B viral genome that increase replication efficiency in mammalian cells

*Research Specialist* | Influenza Research Institute April 2011 – June 2014  
University of Wisconsin-Madison, Department of Pathobiological Sciences  
Principal Investigator: Yoshihiro Kawaoka, PhD, DVM

- Helped establish and manage a high-throughput screening system to identify mammalian-adaptive changes in influenza viral proteins that predict the pandemic potential of newly emerging influenza strains
- Integrated a novel tissue-virus binding assay to assess the effect unique mutations in the viral HA gene have on human respiratory tissue binding, helping reveal the biological functions of non-synonymous SNPs in H5N1 influenza viral RNA isolated from human throat swabs and trachea aspirates
- Responsible for maintaining cell cultures, performing cell-based and molecular biological assays, obtaining, documenting and analyzing experimental data, summarizing and presenting findings at weekly lab meetings
- Assisted with the implementation and integration of Sesame, a web-based laboratory information management system (LIMS)
- Well-versed in laboratory robotics and high-throughput automation

*Laboratory Research Assistant* | Wisconsin Institute for Medical Research Sep 2008 – July 2010  
University of Wisconsin-Madison, Department of Human Oncology  
Principal Investigator: Alan Rapraeger, PhD

- Completed an independent study focused on the effect of chemical agents and antibodies on the formation of an intracellular signaling complex, and consequently the proliferation of mammary carcinoma cells *in vitro*
- Assisted postdoctoral researchers with individual experiments, maintained cell cultures and performed general laboratory maintenance

*Certified Nursing Assistant* | BrightStar Healthcare, Madison, Wisconsin April 2008 - July 2010

- Assisted with medical and non-medical care for elderly and special needs clients
- Assisted patients with activities of daily living, range-of-motion exercises, vital sign checks, general bedside care and ambulation assistance

*Laboratory Research Assistant* | Waisman Laboratory for Brain Imaging and Behavior Sep 2007 - Jan 2008  
University of Wisconsin-Madison, Wisconsin

- Corrected large samples of magnetic resonance brain images utilizing imaging software, traced specific sections of the brain to determine volumes in individuals diagnosed with autism spectrum disorder, compared to control groups and presented correlations
- Involved training in identifying the amygdala from other local landmarks and in basic Linux OS commands for the manual alignment of structural images

## AWARDS AND HONORS

2022	ASRI Gusdon Award Finalist
2021 – 2023	University of Washington STD/AIDS Research Training Grant (T32 AI07140)
2018	ASV 2018 Student Travel Award
2018	Keystone Symposia Future of Science Fund Scholarship
2017	ASV 2017 Student Travel Award
2015 – 2016	NIH ISMMS-NYUSM Virology Training Grant (2T32AI007647-16)
2009 – 2010	Federal Pell Grant
2009 – 2010	Federal Supplemental Educational Opportunity Grant
2009 – 2010	National SMART Grant
2007 – 2008	Dean's List, University of Wisconsin- Madison
2006 – 2007	William F. Vilas Scholarship

## PUBLICATIONS

Hale, M, Netland, J, Chen, Y, Thouvenel, CD, Smith, KN, Rich, LM, Vanderwall, ER, Miranda, MC, **Eggenberger, J**, Hao, L, Watson, MJ, Mundorff, CC, Rodda, LB, King, NP, Guttman, M, Gale, M, Abraham, J, Debley, JS, Pepper, M, & Rawlings, DJ. (2022). IgM antibodies derived from memory B cells are potent cross-variant neutralizers of SARS-CoV-2. *The Journal of Experimental Medicine*, 219(9), e20220849.

Rodda, LB, Morawski, PA, Pruner, KB, Fahning, ML, Howard, CA, Franko, N, Logue, J, **Eggenberger, J**, Stokes, C, Golez, I, Hale, M, Gale, M, Jr, Chu, HY, Campbell, DJ, & Pepper, M. (2022). Imprinted SARS-CoV-2-specific memory lymphocytes define hybrid immunity. *Cell*, 185(9), 1588–1601.e14.

Rathe JA, Hemann EA, **Eggenberger J**, Li Z, Knoll ML, Stokes C, Hsiang TY, Netland J, Takehara KK, Pepper M, Gale M Jr. SARS-CoV-2 Serologic Assays in Control and Unknown Populations Demonstrate the Necessity of Virus Neutralization Testing. *The Journal of Infectious Diseases*, 223(7), 1120–1131.

Rodda LB, Netland J, Shehata L, Pruner KB, Morawski PA, Thouvenel CD, Takehara KK, **Eggenberger J**, Hemann EA, Waterman HR, Fahning ML, Chen Y, Hale M, Rathe J, Stokes C, Wrenn S, Fiala B, Carter L,

Hamerman JA, King NP, Gale M Jr, Campbell DJ, Rawlings DJ, Pepper M. Functional SARS-CoV-2-Specific Immune Memory Persists after Mild COVID-19. *Cell*, 184(1), 169–183.e17.

**Eggenberger J**, Blanco-Melo D, Panis M, Brennand KJ, tenOever BR. Type I interferon response impairs differentiation potential of pluripotent stem cells. *Proc Natl Acad Sci U S A*. 2019 Jan 3. pii: 201812449.

Imai H, Dinis JM, Zhong G, Moncla LH, Lopes TJS, McBride R, Thompson AJ, Peng W, Le MTQ, Hanson A, Lauck M, Sakai-Tagawa Y, Yamada S, **Eggenberger J**, O'Connor DH, Suzuki Y, Hatta M, Paulson JC, Neumann G, Friedrich TC, Kawaoka Y. Diversity of Influenza A (H5N1) Viruses in Infected Humans, Northern Vietnam, 2004-2010. *Emerg Infect Dis*. 2018 Jul;24(7):1128-1238.

## PRESENTATIONS/POSTERS

**Eggenberger J** and Gale Jr, M. Defining the maternal decidual response to acute and persistent Zika virus infection during first-trimester pregnancy. Keystone Symposium Positive-Strand RNA Viruses. Keystone, CO. Oral presentation. June 2022.

**Eggenberger J** and Gale Jr, M. Defining maternal decidual immunity and the developmental consequences of Zika virus infection during first-trimester pregnancy. American Society for Reproductive Immunology (ASRI). Nashville, TN. Oral presentation. May 2022.

**Eggenberger J** and Gale Jr, M. Defining the maternal decidual response to acute and persistent Zika virus infection during first-trimester pregnancy. International Cytokine and Interferon Society Cytokines. Cardiff, United Kingdom. Poster Presentation. October 2021.

**Eggenberger J**, Blanco-Melo D, Panis M, Brennand KJ, tenOever BR. Characterizing the Biological Conflicts Between Development and Innate Immunity. Gordon Research Conference on Viruses and Cells. Lucca (Barga), Italy. Poster Presentation. May 2019.

**Eggenberger J**, Blanco-Melo D, Sedano C, Panis M, Brennand KJ, tenOever BR. Elucidating the Relationship Between Antiviral Defenses and Pluripotency. American Society for Virology, 37<sup>th</sup> Annual Meeting. College Park, MD. Oral Presentation. July 2018.

**Eggenberger J**, Blanco-Melo D, Sedano C, Panis M, Brennand KJ, tenOever BR. Elucidating the Relationship Between Antiviral Defenses and Pluripotency. Keystone Symposia: iPSCs: A Decade of Progress and Beyond. Resort at Squaw Creek in Olympic Valley, CA. Poster Presentation. March 2018.

**Eggenberger J**, Sedano C, and tenOever BR. Elucidating the Antiviral Capacity of Stem Cells. American Society for Virology, 36<sup>th</sup> Annual Meeting. Madison, WI. Oral Presentation. June 2017.

**Eggenberger J**, Sedano C, and tenOever BR. Elucidating the Antiviral Capacity of Stem Cells. 29<sup>th</sup> Symposium on Virus Host Interactions. New York, NY. Poster Presentation. June 2016.

## PROFESSIONAL MEMBERSHIPS

2022 – present	Postdoc member, American Society for Reproductive Immunology (ASRI)
2020 – present	Postdoc member, International Cytokine & Interferon Society
2020 – present	Postdoc member, AAAS
2018 – present	General member, 500 Women Scientists
2017 – 2020	Student member, American Society for Virology
2017 – 2020	Student member, New York Academy of Science