**MADELEINE F. JENNEWEIN**

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**EDUCATION**

**Harvard University** Cambridge, MA

PhD Candidate in Virology, Graduate School of Arts and Sciences 2014-present

Secondary concentration in Science, Technology and Society, Kennedy School of Government

**Brown University** Providence, RI

BS, Biology 2014

**RESEARCH EXPERIENCE**

**Ragon Institute of MGH, MIT and Harvard** Cambridge, MA

PhD Candidate; Advisor: Dr. Galit Alter 2015-present

Researching trans-placental transfer of antibody during pregnancy, antibody functionality

in acute HIV infection and immune complex biology.

**Brown University** Providence, RI

Undergraduate Researcher; Advisor: Dr. Christine Biron 2012-2014

Researched the regulation of NKT response to viral infection by signal transducers and

activators of transcription (STAT) molecules.

**Scripps Research Institute** La Jolla, CA

Intern; Advisors: Dr. Peter Wright and Dr. Jane Dyson 2010-2011

Studied the evolution of the protein structure and dynamics of Dihydrofolate Reductase

using x-ray crystallography and NMR spectroscopy.

**University of California, Davis** Davis, CA

Summer intern; Advisor: Dr. Ken Shackel 2009

Researched the maturation pathways involving sugar in grape development.

**Salk Institute for Biological Studies** La Jolla, CA

Summer Intern; Advisor: Dr. Vicki Lundblad 2007

Studied temperature-sensitive mutations of telomere-binding protein Cdc13.

**SCHOLARLY PUBLICATIONS**

**Jennewein, M.F.,** Goldfarb, I., Dolatshahi, S., Cosgrove, C., Noelette, F.J., Krykbaeva, M., . . . Alter, G. (2019) Fc glycan-mediated regulation of placental antibody transfer. *Cell Press.* In Press

Martinez, D.R., Fong, Y., Hang Li, S., Yang, F., **Jennewein, M.F.,** . . . Sallie R. Premar. (2019). Fc characteristics mediate selective placental transfe of IgG in HIV-infected women. *Cell Press.* In press.

Welles, H.C., **Jennewein, M.F**.,. . .Roederer, M. (2018) Vectored delivery of anti-SIV envelope targeting mAb via AAV8 protects rhesus macaques from repeated limiting dose intrarectal swarm SIVsmE660 challenge. *PLoS Pathogen.* 14(12):e1007395.

**Jennewein, M. F.,** Butler, A., Alter, G. (2018) Neonate-OMICs: charting the unknown immune response in early life.

*Cell Press.* 174(5):1051-1053.

**Jennewein, M. F.,** Abu-Raya B., Jiang, Y., Alter, G., Marchant, A. (2017). Transfer of maternal immunity and programming of the newborn immune system. *Semin Immunopathol.* 39(6):605-613. doi: 10.1007/s00281-017-0653-x

**Jennewein, M. F**., & Alter, G. (2017). The Immunoregulatory Roles of Antibody Glycosylation. *Trends Immunol, 38*(5), 358-372. doi:10.1016/j.it.2017.02.004

Mahan, A. E.\*, **Jennewein\*, M. F.,** Suscovich, T., Dionne, K., Tedesco, J., Chung, A. W., . . . Alter, G. (2016). Antigen-Specific Antibody Glycosylation Is Regulated via Vaccination. *PLoS Pathog, 12*(3), e1005456. doi:10.1371/journal.ppat.1005456 **\*co-first authors**

Bhabha, G., Ekiert, D. C**., Jennewein, M.**, Zmasek, C. M., Tuttle, L. M., Kroon, G., . . . Wright, P. E. (2013). Divergent evolution of protein conformational dynamics in dihydrofolate reductase. *Nat Struct Mol Biol, 20*(11), 1243-1249. doi:10.1038/nsmb.2676

**PUBLICATIONS**

**Jennewein, M.F.** (2018) “Looking for a trash can: Nuclear waste management in the United States.” *Science in the News.* September 5, 2018. <http://sitn.hms.harvard.edu/flash/2018/looking-trash-can-nuclear-waste-management-united-states/>

**Jennewein, M. F.** (2018) “Vaccination: More than just your health*.” Science in The News*. January 2, 2018. <http://sitn.hms.harvard.edu/flash/2018/vaccination-just-health/>

**Jennewein, M.F.** (2017). “Opinion: GOP Tax Plan Will Undermine Graduate Education in the Sciences.” *Times of San Diego.* November 30, 2017.<https://timesofsandiego.com/opinion/2017/11/30/gop-tax-plan-will-undermine-graduate-education-in-sciences/>

**AWARDS AND SCHOLARSHIPS**

**Antibody Engineering & Therapeutics Student Poster Competition** San Diego, CA

**CROI New Investigator Scholarship** Boston, MA

Scholarship to attend 2018 CROI conference March, 2017

**Gates Foundation Center For TB Vaccine Discovery Visiting Scientist** Cape Town, South Africa

Scholarship to visit and teach collaborators November, 2017

**MGH Graduate Student Division Travel Award** Banff, Canada

Scholarship to attend the Cell Human Immunity Symposia October, 2017

**CONFERENCE PRESENTATIONS**

**International Neonatal and Maternal Immunization Symposium** Vancouver, BC

Invited speaker, talk title: Molecular and cellular basis of maternal antibody transfer September 2019

**Keystone HIV vaccines**  Whistler, BC

Poster presenter: Trans-placental antibody transfer selects for highly functional antibodies March 2019

**Infectious Disease Consortium Retreat** Boston, MA

Speaker, talk title: Maternal vaccination as a tool to combat neonatal pertussis May 2017

**Committee on Retroviruses and Opportunistic Infections** Boston, MA

Poster presenter: The co-development of antibody glycosylation and functionality in March 2017

acute HIV infection

**8th Annual HIV Prevention Workshop Centre for the Aids Programme of** Kwazulu-Natal, South Africa

**Research in** **South Africa, the HIV Pathogenesis Programme at the University** November 2017

**of KwaZulu-Natal, and** **the Ragon Institute of MGH, MIT and Harvard**

Speaker, talk title: Biomarkers, functional antibodies for cure

**Cell Human Immunity Symposia** Banff, Canada

Poster presenter: Using systems serology to define novel opportunities to improve October 2017

neonatal humoral immunity

**Virology Program Retreat** Beverley, MA

Speaker talk title: Programming antibody functionality, the role of antibody glycosylation. September 2016

**CE in the Biotechnology & Pharmaceutical Industries Symposium** San Diego, CA

Speaker, talk title: High-throughput analysis of antigen-specific, vaccine-induced September 2016

antibody glycosylation using multi-capillary CE

**TEACHING AND MENTORSHIP**

**Ragon Institute of MGH, MIT and Harvard** Cambridge, MA

Advise an undergraduate researcher 2017-present

Supervise two summer students 2015, 2017, 2018

Teach summer immunology courses 2016, 2017, 2018

Supervised two technicians 2015-2017

Supervised a visiting master’s student 2015

**Harvard University Women in Science and Engineering** Cambridge, MA

Mentor Harvard undergraduate students 2015-2018

**Brown University** Providence, RI

Teaching assistant for Principles of Immunology 2012-2013

**URJ 6-points Sci-Tech Academy** Byfield, MA

Scholar in residence teaching microbiology and astrobiology Summers 2017, 2016

Counselor/specialist teaching chemistry Summer 2014

**LEADERSHIP**

**Journal of Science Policy and Governance**

Assistant Editor In Chief for special issues 2019-present

Associate Editor: Review submissions and guide authors through edits 2017-2019

**Harvard University LGBTQ @ GSAS** Cambridge, MA

President: Oversee executive board, work directly with University administration, plan events 2016-2018

Executive Board Member 2015-2018

**Harvard Journal of Emerging Investigators** Boston, MA

Editor: Review student submissions, compile peer-reviews and communicate with authors 2017-present

Reviewer: Peer-review of student submitted work to the journal 2015-present

**Harvard Science Policy Group** Cambridge, MA

Board Member 2017-present

Professor chat lecture coordinator: Coordinate Harvard faculty to speak about policy issues 2017-2019

DC policy trip participant: Learn about opportunities in science policy, meet with decision makers April 2017

**Science in the News, Harvard Graduate School of Arts and Sciences** Cambridge, MA

Lecture series director Spring 2018

Blog writer Fall 2017, Fall 2018

Fall lecture series: Give talk in seminar on diversity in science October 2017

**Institutional Biosafety Committee for Agios Pharmaceuticals** Cambridge, MA

Community representative to institutional biosafety committee 2018-present

**Harvard Medical School Diversity and Inclusion Council** Boston, MA

Graduate student representative 2015-2016

**Harvard Graduate Student Union Bargaining Committee** Cambridge, MA

Committee member: survey graduate students and bargain with Harvard on a union contract 2018-present