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Education and Research experience

Emory University School of Medicine - Assistant Professor in Microbiology and Immunology	2021-
University of Heidelberg - Postdoctoral fellow in the department of Molecular virology	2016-2021
University of Alberta – Postdoctoral fellow in Microbiology and Immunology department	2015-2016
University of Alberta - Doctor of Philosophy in Cell Biology	2007-2015
University of Alberta - Bachelor of Science with specialization in immunology and infection	2003-2007

Publications

Noteworthy Peer Reviewed Journal Articles

Neufeldt CJ, Joyce MA, Van Buuren N, Kirkegaard K, Gale M Jr, Tyrrell DLJ, Wozniak RW (2016) The hepatitis C virus-induced membranous web and associated nuclear transport machinery limit access of pattern recognition receptors to viral replication sites. *PLoS Pathogens*. 12: e1005428.

Chatel-Chaix L, Cortese M, Romero-Brey I, Bender S, Neufeldt CJ, Fischl W, Scaturro P, Schieber N, Schwab Y, Fischer B, Ruggieri A, Bartenschlager R. (2016) Dengue Virus Perturbs Mitochondrial Morphodynamics to Dampen Innate Immune Responses. *Cell Host and Microbe*.

Cortese M, Goellner S, Acosta EG, Neufeldt CJ, Oleksiuk O, Lampe M, Haselmann U, Funaya C, Schieber N, Ronchi P, Schorb M, Pruunsild P, Schwab Y, Chatel-Chaix L, Ruggieri A, Bartenschlager R. (2017) Ultrastructural Characterization of Zika Virus Replication Factories. *Cell Reports*.

Neufeldt CJ, Cortese M, Acosta EG, Bartenschlager R. (2018) Rewiring cellular networks by members of the Flaviviridae family. *Nature Reviews Microbiology*.

Neufeldt CJ*, Cortese M, Scaturro P, Cerikan B, Wideman JG, Tabata K, Oleksiuk O, Pichlmair A, Bartenschlager R. (2019). ER-shaping Atlantin proteins act as central hubs to promote flavivirus replication and virion assembly. *Nature Microbiology*. doi:10.1038/s41564-019-0586-3.

Ke Z, Oton J, Qu K, Cortese M, Zila V, McKeane L, Nakane T, Zivanov J, Neufeldt CJ, Cerikan B, Lu JM, Peukes J, Xiong X, Kräusslich HG, Scheres SHW, Bartenschlager R, Briggs JAG. (2020) Structures, conformations and distributions of SARS-CoV-2 spike protein trimers on intact virions. *Nature*.

Cortese M, Lee JY, Cerikan B, Neufeldt CJ, Oorschot VMJ, Köhrer S, Hennies J, Schieber NL, Ronchi P, Mizzon G, Brey IR, Santarella-Mellwig R, Schorb M, Boermel M, Mocaer K, Beckwith MS, Templin RM, Gross V, Frankish J, Horvat NK, Laketa V, Stanifer M, Boulant S, Ruggieri A, Chatel-Chaix L, Schwab Y, Bartenschlager R. (2020) Integrative Imaging Reveals SARS-CoV-2 Induced Reshaping of Subcellular Morphologies. *Cell Host and Microbe*.

Tabata K, Prasad V, Paul D, Lee J-Y, Pham M, Twu W, Neufeldt CJ, Cortese M, Cerikan B, Stahl Y, Joecks S, Tran CS, Lüchtenborg C, V'kovski P, Hörmann K, Müller AC, Zitzmann C, Haselmann U, Beneke J, Kaderali L, Erfle H, Thiel V, Lohmann V, Superti-Furga G, Brügger B, Bartenschlager R. (2021) Convergent use of phosphatidic acid for Hepatitis C virus and SARS-CoV-2 replication organelle formation. *Nature Communications*.

Neufeldt CJ*, Cerikan B, Cortese M, Frankish J, Lee JY, Plociennikowska A, Heigwer F, Prasad V, Joecks S, Niesik S, Zander D, Subramanian B, Gimi R, Padmanabhan S, Iyer R, Gendarme M, El Debs B, Halama N, Merle U, Boutros M, Binder M, Bartenschlager R. (2022) SARS-CoV-2 infection induces a pro-inflammatory cytokine response through cGAS-STING and NF- κ B. *Communications Biology*. 5, 45

Neufeldt CJ and Cortese M. (2022) Membrane architects: How Positive-strand RNA viruses restructure the cell. Journal of General Virology.*

Neufeldt CJ and Eric Hunter. (2023 – in press) Virus Assembly and Maturation. Fields Virology Fundamentals 7th edition. Chapter 6.

Presentations

Invited lectures

1. Arizona State University. Biodesign Center. 2022
2. Emory University, Division of Infectious Diseases. 2022
3. Emory University, Department of Microbiology and Immunology. 2021
4. University of Alberta, Department of Medical Microbiology and Immunology. 2020
5. Princeton, Department of Molecular Biology. 2020
6. University of Heidelberg Clinic, Department of molecular Virology. 2015
7. University of Western Ontario, Department of Microbiology and Immunology. 2015
8. University of Alberta, Department of Medical Microbiology and Immunology. 2015

Conference Oral Presentations

1. *SARS-CoV-2 infection induces a pro-inflammatory cytokine response through cGAS-STING and NF- κ B.* 2021. German Virology Society (GfV 2021).
2. *ER-shaping Atlastin proteins differentially contribute to flavivirus replication and assembly.* 2019. Keystone symposia: Positive-strand RNA viruses. Killarney, Ireland.
3. *Exclusion of pattern recognition receptors from the hepatitis C virus-induced membranous web.* RiboWest 2015 – The Western Canadian RNA conference
4. *Exclusion of pattern recognition receptors from the hepatitis C virus induced membranous web.* 2014. International Symposium on Hepatitis C Virus and Related Viruses. Banff, AB Canada.
5. *HCV and other positive strand RNA viruses hijack the Nuclear Pore Complex to form a barrier between the cytosol and the interior of the membranous web.* 2013. International Symposium on Hepatitis C Virus and Related Viruses. Melbourne, Australia.
6. *A role for cytoplasmic nuclear pore complexes in Hepatitis C virus replication.* 2012 International Symposium on Hepatitis C Virus and Related Viruses. Venice, Italy.

Honors and awards:

- 2019 Keystone Symposia E2 Scholarship
- 2016-2018 European Molecular Biology Organization (EMBO) long-term fellowship
- 2014 21st International Symposium on Hepatitis C Virus and Related Viruses Travel Award
- 2012-2013 75th Anniversary Graduate Student Award
- 2011 University of Alberta Graduate Students Association travel award
- 2011 Mary Louise Imrie, J Gordin Kaplan & Profiling Alberta's Graduate Students Awards
- 2010-2011 Queen Elizabeth II Graduate Scholarship – Doctoral Research award
- 2008-2009 Queen Elizabeth II Graduate Scholarship - Masters Research award
- 2007 Graduate Student Scholarship Research Award, Province of Alberta

Professional Memberships:

- 2019- Canadian Society for Virology (CSV)
- 2015- American Society for Virology (ASV)
- 2010- American Society for Cell Biology (ASCB)