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# CURRICULUM VITAE

## A. Personal information

**Name**: Alexander Ploss

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## B. Education/Training

| INSTITUTION AND LOCATION | DEGREE | YEAR(s) | FIELD OF STUDY |
|---|---|---|---|
| University of Tübingen, Germany | B.S. | 1999 | Biochemistry |
| University of Washington, Seattle | | 1999-2000 | Biochemistry/Immunology |
| Memorial Sloan-Kettering Cancer Center | | 2001 | Immunology |
| University of Tübingen, Germany | M.S. | 2001 | Immunology/Biochemistry |
| Weill Graduate School of Medical Sciences of Cornell University/Memorial Sloan-Kettering Cancer Center | Ph.D. | 2004 | Immunology |
| The Rockefeller University | Postdoc | 2005-2008 | Virology/Immunology |

## C. Positions and Honors.

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|---|---|
| 1999-2000 | Visiting Ph.D. Student, Howard Hughes Medical Institute, University of Washington, Seattle, WA, Department of Immunology (Alexander Rudensky) |
| 2000 | Graduate Research Associate, German Cancer Research Center, Heidelberg, Germany, Department of Applied Tumor Virology (Harald zur Hausen) |
| 2001-2004 | Ph.D. Student, Weill Graduate School Medical Sciences of Cornell University/Memorial Sloan-Kettering Cancer Center, NY, NY, Immunology Program, Laboratory of Antimicrobial Immunity (Thesis advisor: Eric G. Pamer) |
| 2005-2008 | Postdoctoral Associate/Fellow, Laboratory of Virology & Infectious Disease, Center for the Study of Hepatitis C, The Rockefeller University (Charles M. Rice) |
| 2008-2009 | Research Associate, Laboratory of Virology & Infectious Disease, Center for the Study of Hepatitis C, The Rockefeller University (Charles M. Rice) |
| 2009-2013 | Research Assistant Professor, Laboratory of Virology & Infectious Disease, Center for the Study of Hepatitis C, The Rockefeller University |
| 01/13-06/13 | Research Associate Professor, Laboratory of Virology & Infectious Disease, Center for the Study of Hepatitis C, The Rockefeller University |
| 2013-2018 | Assistant Professor, Department of Molecular Biology, Princeton University |
| 2013-present | Member, Cancer Institute of New Jersey (CINJ) |
| 2013-present | Faculty Affiliate, Program in Global Health and Health Policy, Princeton University |
| 2014-present | Member of the Executive Committee, Center for Health and Wellbeing, Princeton University |
| 2018-2022 | Associate Professor (with tenure), Department of Molecular Biology, Princeton University |
| 2021-present | Member, Center of Excellence for Cancer Immunology and Metabolism Working Group, CINJ/Princeton |
| 2022-present | Full Professor, Department of Molecular Biology, Princeton University |

## Other Professional Activities

Ad hoc reviewer for

| | |
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| 2005-present | Antimicrobial Agents&Chemotherapy, Journal of Experimental Medicine, Journal of Hepatology |
| 2006-present | Journal of Virology, Hepatology |
| 2009-present | PloS ONE, Virology |
| 2010-present | Antiviral Research, BMC International Health and Human Rights, Clinical and Vaccine Immunology, PLoS Pathogens |

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|---|---|
| 2011-present | Nature Reviews Genetics, Journal of Viral Hepatitis, Nature Protocols, Immunology and Cell Biology, Gastroenterology |
| 2012-present | Nature Reviews Immunology, Nature Medicine, Science Translational Medicine |
| 2013-present | Science, Gut, Journal of Clinical Investigation, Alternatives to Animal Experimentation (Altex), |
| 2014-present | Nature Communications, Stem Cell Reports, Journal of Virological Methods, Immunology Letters, Cellular and Molecular Gastroenterology and Hepatology |
| 2015-present | Malaria Journal, Tissue Engineering, Disease Models & Mechanism |
| 2016-present | Cell Host & Microbe |
| 2017-present | Nature Microbiology |
| 2018-present | PLoS Tropical and Neglected Diseases |
| 2019-present | EMBO Reports |

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|---|---|
| 2013-2014 | Guest Editor, Journal of Immunological Methods |
| 2014-2015 | Section Editor, Current Opinion of Virology |
| 2015-2017 | Reviews Editor, Viruses |
| 2017-present | Associate Editor, Viruses |
| 2017-present | Associate Editor, The Journal of Virology |
| 2017-present | Editorial Board, Gastroenterology |
| 2019-present | Editorial Board, Journal of Hepatology |

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| 2010-2013 | Consultant, APATH LLC. |
| 2014 | Member of the PCSK9 - Inhibition HCV Scientific Advisory Board, Regeneron Pharmaceuticals/Sanofi |
| 2014-2016 | Member of the HBV Cure Scientific Advisory Board, Gilead Sciences |
| 2016-2017 | Consultant, Bristol-Myers Squibb |
| 2016-present | Instructor for summer courses, Torhea Education Group/Neoscholar Education group |
| 2017-2021 | Member of the Scientific Advisory Board, Hurel Corporation |
| 2019-present | Founder & President, Acurasset Therapeutics Inc. |
| 2020-present | Consultant, PharmaSeq |
| 2021-present | Consultant, Lycia Therapeutics |

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| 2013 | Member of the organizing committee for the 2013 IOM Neuroscience Forum workshop on "Speeding Therapeutics towards First-in-Human Trials for Nervous System Disorders", Washington, D.C. |
| 2013 | Co-organizer for the 2013 symposium on "HCV animal models and vaccine development" sponsored by European Union, Tallinn, Estonia. |
| 2015-2016 | Member of the International Scientific Committee for the 5$^{th}$ International Workshop on Humanized Mice in 2016, Zurich, Switzerland |
| 2016-2017 | Member of the Local Organizing Committee of the 24$^{th}$ International Symposium on Hepatitis C Virus and Related Viruses, Cape Cod, MA |
| 2017 | Chair of the "Cell culture Systems and Animal Models" workshop at the 24$^{th}$ International Symposium on Hepatitis C Virus and Related Viruses, Cape Cod, MA |
| 2021 | Session chair "Animal Models, Organoids and Replication Systems" at the 27$^{th}$ International Symposium on Hepatitis C Virus and Related Viruses, Montreal, Canada (virtual) |
| 2021 | Session chair "Application of new technologies and advances in models for the study of HBV" at the 2021 HBV International Meeting |

**Grant Review**

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|---|---|
| 2011-present | Grant reviewer for National Research Agency (Agence National de la Recherche), France |
| 2011 | Reviewer for the IOM&NRC of the National Academies report on "Chimpanzees in Biomedical and Behaviorial Research: Assessing the Necessity" |
| 2011-present | Adhoc grant reviewer for the National Institute for Allergy and Infectious Disease (NIAID) |
| 2013-present | Adhoc grant reviewer for the German Research Foundation (Deutsche Forschungsgemeinschaft) |

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| 2014 | Adhoc grant reviewer for Ghent University (Belgium) Industrial Research Fund |
| 2014-2015 | Adhoc grant reviewer for the National Institute of Diabetes and Digestive and Kidney Diseases (*NIDDK*) |
| 2015-present | Adhoc grant reviewer for the Wellcome Trust (U.K.) and India Alliance System (India) |
| 2016-present | Grant Reviewer for the Israeli Science Foundation and NC3Rs (UK) |
| 2016-2019 | Member Microbial Pathogenesis and Cancer Grant Review Section, American Cancer Society |
| 2019-present | Co-chair Microbial Pathogenesis and Cancer Grant Review Section, American Cancer Society |
| 2020-present | Adhoc grant reviewer for the Swiss National Science Foundation |
| 2020-present | Adhoc grant reviewer for the Science Foundation Ireland |
| 2020-present | Adhoc grant reviewer for the Collaborative Research Fund, Hong Kong |

**Professional memberships**

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|---|---|
| 2010-present | American Association for the Advancement of Science (AAAS) |
| 2011-2013 | The Society for Clinical and Translational Science (CTS) |
| 2011-present | Infectious Diseases Society of America (IDSA) |
| | HIV Medicine Association (HIVMA) |
| | New York Academy of Science |
| | American Association for the Study of Liver Diseases |
| 2012-present | American Association of Immunologists |
| 2014-present | American Society of Virology |
| | American Society of Microbiology |
| 2015-present | German Society for Virology (Gesellschaft für Virologie) |
| | Theobald Smith Society |

**Honors**

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|---|---|
| 1999-2002 | Studienstiftung des deutschen Volkes (German National Merit Foundation) |
| 2002 | Prize for the best Diplomthesis (MS equivalent) awarded by the Association of Biochemists of Tübingen, Germany |
| 2003-2004 | Cancer Research Institute pre-doctoral fellowship |
| 2005-2006 | Kimberly Lawrence-Netter Cancer Research Discovery Fund Award |
| 2009 | Best poster presentation during Rockefeller University graduate student recruitment |
| 2010-present | Contributing member of the Faculty of 1000 (Biology) |
| 2011-2012 | Astellas Young Investigator Award by the Infectious Disease Society of America |
| 2012-2013 | American Liver Foundation Gregg Allman Liver Scholar Award |
| 2015 | Viruses Young Investigator Award, Runner-up |
| 2015 | Princeton University Princeton "New Ideas in the Natural Sciences" Award (with Jared Toettcher) |
| 2015 | Löffler-Frosch Prize of the German Society of Virology |
| 2015 | Young Investigator Award, Theobald Smith Society |
| 2015 | Merck Irving S. Sigal Memorial Award of the American Society of Microbiology |
| 2015-2020 | American Cancer Society Research Scholar Award |
| 2016 | Princeton University Intellectual Property Accelerator Fund Award |
| 2016 | Burroughs Wellcome Fund Investigator in the Pathogenesis of Infectious Disease Award |
| 2018 | Princeton University Intellectual Property Accelerator Fund Award |
| 2020 | Princeton Catalysis Initiative Grant, with Ralph Kleiner |
| 2019 | Princeton University Intellectual Property Accelerator Fund Award |
| 2020 | Princeton Catalysis Initiative Grant, with Ralph Kleiner |
| 2021 | First Prize, BioNJ Pitch Presentation Competition, 11$^{th}$ Annual Biopartnering Conference |

**D. Publications**

**D.1. Prior to graduate school**

1. Reuss F.U., Heber R., **Ploss A.**, Berdel B. (2001) Amphotropic murine leukemia virus replication in human mammary epithelial cells and the formation of cytomegalovirus-promoter recombinants, Virology 291: 91-100.

**D.2. Graduate work (Memorial Sloan Kettering Cancer Center)**

**D.2.1. Research Articles**

2. Kerksiek K.M., **Ploss A.**, Leiner I., Busch D.H., Pamer E.G. (2003) H2-M3 restricted T cells: persistence and activation without expansion, The Journal of Immunology, 170: 1862-9.
3. **Ploss A.**, Lauvau G., Contos B., Kerksiek K.M., Lenz L.L., Bevan M.J., Pamer E.G. (2003) Promiscuity of MHC class Ib restricted T cell responses, The Journal of Immunology, 171: 5948-55. PMC2791464
4. Wong P., Lara-Tejero M., **Ploss A.**, Pamer E.G. (2004) Rapid development of T cell memory, The Journal of Immunology, 172: 7239-45.
5. Dao T., Guo D., **Ploss A**., Stolzer A., Saylor C., Boursalian T., Im J.S., Sant'Angelo D. (2004) Development of CD1d-restricted NKT cells in the mouse thymus, European Journal of Immunology 34: 3542-52.
6. **Ploss A.**, Tran A., Menet E., Leiner I., Pamer E.G. (2005) Cross-recognition of N-formyl methionine peptides is a general characteristic of H2-M3 restricted CD8+ T cells, Infection and Immunity, 73: 4423-6. PMC1168546
7. **Ploss A.**, Leiner I., Pamer E.G. (2005) Distinct regulation of H2-M3 restricted memory T cell responses in lymph node and spleen, Journal of Immunology, 175: 5998-6005.
8. Biswas P.S., Pedicord V., **Ploss A**., Menet E., Leiner I., Pamer E.G. (2007) Pathogen-specific CD8 T cell responses are directly inhibited by IL-10, Journal of Immunology, 179: 4520-8.

**D.2.2. Review articles/book chapters**

9. **Ploss A.**, Pamer E.G. (2004) Memory, in S.H.E. Kaufmann (Ed.) Novel Vaccination Strategies, WILEY-VCH, Weinheim, New York, pp.73.
10. **Ploss A.**, Pamer E.G. (2005) Immunologic Memory. *In:* Meyers, R.A., ed. Encyclopedia of Molecular Cell Biology and Molecular Medicine, WILEY-VCH Verlag GmbH & Co., Weinheim. p. 383.

**D.3. Postdoc**

**D.3.1. Research Articles**

11. Lindenbach B.D., Meuleman P., **Ploss A.**, Vanwolleghem T., Syder A.J., McKeating J.A., Lanford R.E., Feinstone S.M., Major M.E., Leroux-Roels G., Rice C.M. (2006) Cell culture-grown hepatitis C virus is infectious *in vivo* and can be re-cultured *in vitro*, Proc Natl Acad Sci, 103: 3805-9. PMC1533780
12. **Ploss A.**[*]**,** Evans M.J.[*], Gaysinskaya V.A., Panis M., You H., de Jong Y.P., Rice C.M. (2009) Human occludin is a hepatitis C virus entry factor required for infection of mouse cells, Nature, 457: 882-6. PMC2762424
13. Strowig T.*, Gurer C.*, **Ploss A.**, Liu Y.F., Arrey F., Sashihara J., Koo G., Rice C.M., Young J.W., Chadburn A., Cohen J.I., Münz C. (2009) Priming of protective T cell responses against virus-induced tumors in mice with human immune system components. Journal of Experimental Medicine, 206: 1423-34. PMC2715061
14. Akondy R.S., Monson N.D., Miller J.D., Edupuganti S., Teuwen D., Wu H., Quyyumi F., Garg S., Altman J.D., Del Rio C., Keyserling H.L., **Ploss A.**, Rice C.M., Mulligan M.J., Orenstein, W.A., Ahmed R. (2009) The yellow fever virus vaccine induces a broad and polyfunctional human memory CD8+ T Cell response. Journal of Immunology, 183: 7919-30. PMC3374958
15. **Ploss A.***, Khetani S.K.*, Jones C.T., Syder A.J., Trehan, K., Gaysinskaya, V.A., Mu, K.M, Ritola, K., Rice C.M., Bhatia S.N. (2010), Persistent hepatitis C virus infection in microscale primary human hepatocyte cultures. Proc Natl Acad Sci U S A., 107: 3141-5. PMC2840339
16. Jones C.T., Catanese M.T., Law L.M.J., Khetani S.R., Syder A.J., **Ploss A.**, MacDonald M.R, Bhatia S.N., Rice, C.M. (2010) Real-time imaging of hepatitis C virus infection using a fluorescent cell-based reporter system, Nature Biotechnology, 28: 167-71. PMC2828266
17. Kohaar I., **Ploss A**., Korol E., Mu K., Schoggins J.W., O'Brien T., Rice C.M., Prokunina-Olsson L. (2010). Splicing diversity of human *OCLN* gene and its biological significance for hepatitis C virus (HCV) entry. Journal of Immunology, 84: 6987-94. PMC2898237

**D.3.2. Review articles/book chapters**

18. Legrand N.*, **Ploss A.*** Balling R., Becker P.D., Borsotti C., Brezillon N., Debarry J., de Jong Y., Deng H., Di Santo J.P., Eisenbarth S., Eynon E., Flavell R.A., Guzman C.A., Huntington N.D., Kremsdorf D., Manns M.P., Manz M.G., Mention J.J., Ott M., Rathinam C., Rice C.M., Rongvaux A., Stevens S., Spits H., Strick-Marchand H., Takizawa H., van Lent A.U., Wang C., Weijer K., Willinger T., Ziegler P. (2009) Humanized mice for modeling human infectious disease: challenges, progress, and outlook. Cell Host Microbe, 6: 5-9.
19. **Ploss A.** and Rice, C.M. (2009) Towards a small model for Hepatitis C. EMBO Reports, 10: 1220-7. PMC2775186

**D.4. Faculty position at The Rockefeller University**

**D.4.1. Research Articles**

20. Billerbeck, E., Barry W.T., Mu, K., Dorner, M., Rice, C.M., **Ploss, A.** (2011), Development of human CD4+FoxP3+ regulatory T cells in human stem cell factor-, granulocyte-macrophage colony-stimulating factor-, and interleukin-3-expressing NOD-SCID IL2Rγ(null) humanized mice, Blood, 117: 3076-86, PMC3062310
21. Washburn M.L., Bility M.T., Kovalev G.I., Zhang L., Jiang Q., Buntzman A., Frelinger J., Barry W.T., **Ploss A**., Rice C.M., Su L. (2011) A humanized mouse model to study hepatitis C virus infection, immune response, and liver disease, Gastroenterology, 40: 1334-44. PMC3066273
22. Dorner, M., Horwitz, J.A., Robbins, J., Barry, W.T., Mu, K., Jones, C.T., Schoggins, Catanese, M.T., J.W., Burton, D.R., Law, M., Rice, C.M., **Ploss, A.** (2011) A genetically humanized mouse model for hepatitis C virus infection, Nature, 474: 209-211. PMC3159410
23. Andrus L., Marukian S., Jones C.T., Catanese M.T., Sheahan T.P., Schoggins J.W., Barry W.T., Dustin L.B., Trehan K., **Ploss A**., Bhatia S.N., Rice C.M. (2011) Expression of paramyxovirus V proteins promotes replication and spread of hepatitis C virus in cultures of primary human fetal liver cells. Hepatology, 54: 1901-12. PMC3233237
24. Marukian S., Andrus L., Sheahan T.P. Charles E.D., **Ploss A.**, Rice C.M., Dustin L.B. (2011), Hepatitis C virus induces interferon-λ and interferon-stimulated genes in primary liver cultures, Hepatology, 54: 1913-23. PMC3219820
25. Schwartz R.E.*, Trehan K*., Andrus L., **Ploss A.**, Rice C.M., Duncan S.A., Bhatia S.N. (2012) Modeling hepatitis C Virus infection using human induced pluripotent stem cells, Proceedings of the National Academy of Science., 109: 2544-8. PMC3289320
26. Meng X., Schoggins J.W., Rose L., Cao J., **Ploss A.**, Rice C.M., Xiang Y. (2012) C7L family of poxvirus host-range genes inhibit antiviral activities induced by 2 Type I interferons and interferon regulatory factor 1, Journal of Virology, 86: 4538-47. PMC3318637
27. Giang E., Dorner M., Dreux M., Evans M.J., Chisari F.V., Rice C.M., **Ploss A.**, Burton D.R., Law M. (2012), Human broadly neutralizing antibodies to the envelope glycoprotein complex of hepatitis C virus, Proceedings of the National Academy of Science, 109: 6205-10. PMC3341081
28. Pietzsch J., Gruell H., Bournazos A., Donovan B.M., Seaman M.S., Ravetch J.V., **Ploss A.**, Nussenzweig M.C. (2012) A mouse model for HIV-1 entry, Proceedings of the National Academy of Science, 109: 15859-64. PMC3465400
29. Klein F., Halper-Stromberg A., Horwitz J.A., Gruell H., Scheid J.F., Bournazos S., Mouquet H., Spatz L.A., Diskin R., Abadir A., Dorner M., Billerbeck E., Labitt R.N., Gaebler C., Marcovecchio P., Incesu R.B., Eisenreich T.R., Bieniasz P.D., Seaman M.S., Bjorkman P.J., Ravetch J.V., **Ploss A.**, Nussenzweig M.C. (2012), HIV therapy by a combination of broadly neutralizing antibodies in humanized mice, Nature, 492: 118-22. PMC3809838
30. Schoggins J.W., Dorner M., Feulner M., Imanaka N., Murphy M.Y., Pouzol S., Panis M., **Ploss A.**, Rice C.M. (2012) Dengue reporter viruses reveal viral dynamics in interferon receptor-deficient mice and sensitivity to interferon effectors *in vitro*, Proceedings of the National Academy of Science, 109: 14610-5. PMC3437900
31. Vaughan A.M., Mikolajczak S.A. Wilson E.M. Grompe M., Kaushansky A., Camargo N. Bial J., **Ploss A.**, Kappe S.H.I. (2012) Complete *Plasmodium falciparum* liver-stage development in liver-chimeric mice, Journal of Clinical Investigation, 122: 3618-28. PMC3461911
32. Dorner M., Rice C.M., **Ploss A.** (2013) Study of hepatitis C virus entry in genetically humanized mice, Methods. 59: 249-57. PMC3652663

33. Horwitz* J.A., Dorner M.*, Friling T., Donovan B.M., Vogt A., Loureiro J., Oh T., Rice C.M., **Ploss A.** (2013) Expression of heterologous proteins flanked by NS3-4A cleavage sites within the hepatitis C virus polyprotein, Virology, 439: 23-33. PMC3620014
34. Guermonprez P., Helft J., Claser C., Deroubaix S., Karanje H., Gazumyan A., Darasse-Jèze G., Telerman S.B., Breton G., Schreiber H.A., Frias-Staheli N., Billerbeck E., Dorner M., Rice C.M., **Ploss A.**, Klein, F., Swiecki, M., Colonna, M., Kamphorst, A.O., Meredith, M., Niec, R., Takacs, C., Mikhail, F., Hari, A., Bosque, D., Eisenreich, T., Merad, M., Shi, Y., Ginhoux, F., Rénia, L., Urban, B.C., Nussenzweig, M.C. (2013) Inflammatory Flt3l is essential to mobilize dendritic cells and for T cell responses during *Plasmodium* infection, Nature Medicine, 2013 Jun;19(6): 730-8. doi: 10.1038/nm.3197. PMCID: PMC3914008.
35. Vogt A., Scull M.A., Friling T., Horwitz J.A., Donovan B.M., Dorner M., Gerold G., Labitt R.N., Rice C.M., **Ploss A.** (2013) Recapitulation of the hepatitis C virus life-cycle in engineered murine cell lines. Virology, 444(1-2):1-11, PMCID:PMC3755106
36. Gruell H., Bournazos S., Ravetch J.V., **Ploss A**., Nussenzweig M.C., Pietzsch J. (2013) Antibody and antiretroviral pre-exposure prophylaxis prevent cervicovaginal HIV-1 infection in a transgenic mouse model. The Journal of Virology, 87(15):8535-44. PMC3719827
37. Dorner M., Horwitz J.A.*, Donovan B.M.*, Labitt R.N., Budell W.C., Friling T., Vogt A., Catanese M.T., Satoh T., Kawai T., Akira S., Law M., Rice C.M.**, **Ploss A****.** (2013) Completion of the entire hepatitis C virus life-cycle in genetically humanized mice, Nature, 501(7466):237-41, PMCID:PMC3858853
38. Billerbeck E., Horwitz J.A., Labitt R., Vega K., Budell W.C., Friling T., Koo G.C., Rice C.M., **Ploss A.** (2013), Characterization of Human Antiviral Adaptive Immune Responses during Hepatotropic Virus Infection in HLA-Transgenic Human Immune System Mice, The Journal of Immunology, 191:1753-1764. PMC3735836
39. Anggakusuma Colpitts, C.C., Schang L.M., Rachmawati H., Frentzen A., Pfaender S., Behrendt P., Brown R.J., Bankwitz D., Steinmann J., Ott M., Meuleman P., Rice C.M., **Ploss A.**, Pietschmann T., Steinmann E. (2013) Turmeric curcumin inhibits entry of all hepatitis C virus genotypes into human liver cells. Gut. 63(7):1137-49
40. Horwitz, J.A., Halper-Stromberg, A., Mouquet, H., Gitlin, A.D., Tretiakova, A., Eisenreich, T.R., Gravemann, S. Buning, H., Kaiser, R, Seaman, M.S., Wlison, J., Billerbeck, E., Dorner, M., Rice, C.M., **Ploss, A.**, Bjorkman, P., Klein F., Nussenzweig, M.C. (2013) Enhanced HIV-1 suppression and sustained viremic control by combining broadly neutralizing antibodies and antiretroviral drugs, Proc Natl Acad Sci U S A.110(41):16538-43. PMC3799352
41. Sheahan, T.P., Imanaka, N., Marukian, S., Dorner, M., **Ploss, A.**, Rice, C.M. (2014) Transcriptomic Analysis of Primary Human Hepatocytes Infected with Hepatitis C Virus Reveals Distinct Defects in the Antiviral Program Associated with IL28B Polymorphisms, Cell Host & Microbe, 15(2):190-202, PMCID:PMC4104123

**D.4.2. Review articles/book chapters**

42. De Jong Y.P., Rice C.M., **Ploss A.** (2010), New horizons for studying human hepatotropic infections, Journal of Clinical Investigation, 120: 650-3. PMC2827969
43. Sheahan T., Jones C.T., **Ploss A.** (2010) Advances and challenges in studying hepatitis C virus in its native environment, Expert Review of Gastroenterology and Hepatology, 4: 541-50.
44. Gerold, G., Rice, C.M., **Ploss, A.** (2010) Teaching new tricks to an old foe: murinizing Hepatitis C virus, Hepatology, 52: 2233-6.
45. De Jong, Y.P., Rice, C.M., **Ploss, A.** (2010) Evaluation of combination therapy against hepatitis C virus infection in human liver chimeric mice, Journal of Hepatology, 54: 848-50.
46. Dorner M. **Ploss A.** (2011) Deconstructing hepatitis C virus infection in humanized mice, Annals of the New York Academy of Sciences, 1245: 59-62.
47. Scull M.A., Ploss A. (2012) Exiting from uncharted territory: Hepatitis C virus assembles in mouse cell lines, Hepatology, 55: 645-8. PMC3270883
48. **Ploss A.*, **, Evans M.*, ** (2012) Hepatitis C virus entry, Current Opinion in Virology, 2: 14-9. PMC3311996
49. **Ploss A.*, **, Dubuisson J.*, ** (2012) New advances in the molecular biology of hepatitis C virus infection: towards the identification of new treatment targets, Gut. 61 Suppl 1:i25-i35.
50. Vaughan A.M., Kappe S.H.I., **Ploss A,** Mikolajczak S. (2012) Development of humanized mouse models to study human malaria parasite infection. Future Microbiology,2012 May;7(5) 657-65. doi: 10.2217/fmb.12.27. PMCID: PMC3848604.

51. **Ploss A.** (2012) Hepatitis C virus and use of reverse genetics in drug design, *in* A. Bridgen (*Ed*.) Chapter 3: Reverse Genetics of RNA Viruses: Applications and Perspectives, pages 64-90, Wiley-Blackwell
52. Sandmann L., **Ploss A**. (2013) Barriers of hepatitis C virus interspecies transmission, Virology, 435: 70-80. PMC3523278
53. Shi C. **Ploss A.** (2013) Hepatitis C virus vaccines in the era of new direct-acting antivirals, Expert Reviews in Hepatology and Gastroenterology, 7: 171-85.
54. Billerbeck E., de Jong Y. P., Dorner M., de la Fuente C, **Ploss A.** (2013) Animal models for hepatitis C, *in* Current Topics in Microbiology and Immunology: Hepatitis C Virus: From molecular virology to antiviral therapy, *ed*. Ralf Bartenschlager, 369: 49-86.doi: 10.1007/978-3-642-27340-7 3.

**D.5. Faculty position at Princeton University**

**D.5.1. Research Articles**

55. Frias-Staheli N., Dorner M., Marukian S., Billerbeck E., Labitt R.N., Rice C.M., **Ploss A.** (2014) Characterization of dengue virus-induced immunity and disease in humanized BLT mice, The Journal of Virology, 88(4):2205-18, PMCID:PMC3911540
56. von Schaewen, M., Ding, Q., **Ploss, A.** (2014) Visualization of hepatitis C virus infection in humanized mice Journal of Immunological Methods, 410:50-9, PMCID: PMC4163068
57. Billerbeck, E., Labitt, R.N., Vega, K., Frias-Staheli, N., Dorner, M., Xiao, J., Rice, C.M., **Ploss, A.** (2014) Insufficient IL-12 signaling favors differentiation of human CD4+ and CD8+ T cells into GATA-$3^{+}$ and GATA-$3^{+}$T-bet$^{+}$ subsets in humanized mice, Immunology, 143(2):202-18, PMCID: PMC4172137
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135. Wei, L., **Ploss, A.** (2022) Rise above the stress – ER stress and autophagy enhance the release of hepatitis B virus sub particles, Hepatology, 75(2):248-251
136. LeDesma, R., **Ploss, A.** (2022) Hepatitis E virus. Field's Virology
137. Schwoerer, M.P., **Ploss, A.** (2022), Barriers to Hepatitis C Virus Infection in Mice, Current Opinion in Virology, in press

* these authors contributed equally; ** co-senior/corresponding authors

**Patent applications**

1. **Ploss A**., Ding, Q. (2016) Methods and Compositions for Inhibiting Hepatitis E virus, provisional patent application filed, U.S. Patent Application No.: 62/398,297
2. **Ploss, A**., Wei, L. (2017) Methods and Compositions for Inhibiting Hepatitis B virus, provisional patent application filed
3. **Ploss, A**., Douam, F. (2018) MicroRNA-based therapeutics for the treatment of flavivirus infections, U.S. Patent Application No.: 62/702,471

**Granted patents**

4. **Ploss A.**, Nimgaonkar, I., Kim, H. (2020) Small molecule inhibitors of viral replication: WO2020/231979
5. **Ploss A.**, Evans M.J., Rice C.M. (2009) New Entry Factor, occludin, US patent number: US 12/299,439
   This patent claims the use of occludin as a target to prevent, mitigate or inhibit HCV infection. It further covers the development of a genetically modified rodent rendered permissive to HCV glycoprotein mediated entry or infection by expression of human occludin.
6. **Ploss A.**, Khetani S.R., Jones C.J., Rice C.M., Bhatia S.N. (2008) Micropatterned co-culture systems as infectious disease analysis platforms. US patent application number: US 61/78,683
   This invention is based on the development and optimization of micropatterned primary hepatocyte culture systems for pharmacological and toxicological analysis as well as for drug efficacy test against human pathogens, including hepatitis A, B, C, δ, E viruses and Plasmodium spp.)

**D. (Invited) oral presentations:**

1. **Promiscuity of MHC class Ib restricted T cell responses**, The 2nd Immunology Meeting for Graduate Students, Northeast Region, Cornell University, Ithaca, NY, USA, September, 2002
2. **T cell memory potential is programmed by thymic development**, Annual Meeting of the American Association of Immunologist, Denver, CO, USA, May 2003
3. **Memory T cell expansion upon Re-encoutering Antigen: Differences between MHC Class Ia and Ib Restricted CD8+ T cells**, 23rd Vincent DuVigneaud Symposium, New York, NY, USA, May 2004
4. **Creation of small animal models for Hepatitis C virus infection and immunity**, Center for the Study of Hepatitis C, The Rockefeller University, New York, USA, February 13, 2007
5. **Creation of small animal models for Hepatitis C virus infection and immunity**, The Children's Hospital of Philadelphia, Gene and Cell Therapy Affinity Group Research Seminar Series, Philadelphia, USA, April 28, 2008
6. **Generation of patient-specific hepatocytes for the genetic analysis of susceptibility to hepatitis C virus infection,** Center for the Study of Hepatitis C, The Rockefeller University, New York, USA, May 13, 2008
7. **Generation of human liver chimeric mice and its applications for human hepatotropic infections**, Bill & Melinda Gates Foundation, Grand Challenges in Global Health #4, Scientific Progress Meeting, Versailles France, May 27, 2008
8. **Novel Insight into Hepatitis C virus infection,** 19th Annual Meeting of the "Gesellschaft für Virologie" (GfV, Society for Virology), Leipzig, Germany, March 21, 2009
9. **Human occludin is a Hepatitis C virus entry factor required for infection of mouse cells**, 2nd International Workshop on Humanized Mice, Amsterdam, The Netherlands, April 5, 2009
10. **Creation of humanized mice for the study of human infectious diseases**, Aaron Diamond AIDS Research Center, New York, NY, USA, August 31, 2009
11. **Breaking species barriers: New models for studying pathogenesis of human infectious diseases**, The Rockefeller University, New York, NY, USA, September 17, 2009
12. **Creation of humanized mouse models for human hepatotropic infections,** Bill & Melinda Gates Foundation, Grand Challenges in Global Health, 5th Annual Meeting, Arusha, Tanzania, October 19-21, 2009

13. **Impact of alternative splicing of human occludin on hepatitis C virus entry,** 16th International Symposium on Hepatitis C and related viruses, Nice, France, October 4, 2009
14. **Persistent HCV infection in microscale primary human hepatocyte cultures,** 16th International Symposium on Hepatitis C and related viruses, Nice, France, October 6, 2009
15. **Prospects for a Small Animal Model for HCV,** HEPDART 2009 Frontiers in Drug Development for Viral Hepatitis, Big Island, Hawaii, USA, December 7, 2009
16. **Studying hepatitis C virus infection and immunity in humanized mouse models**, 3rd Workshop Humanized SCID Mouse Models: Stem Cells, Cancer, & Viral Pathogenesis, Belhurst Castle, Geneva NY, May 13, 2010
17. **Breaking species barriers: Studying hepatitis C virus infection in small animal models**, Hannover Medical School, Hannover, Germany June 9, 2010
18. **Humanized mice for the liver**, 3rd International Workshop for Humanized Mice, Hannover, Germany, June 12, 2010
19. **A genetically humanized, immunocompetent mouse model for Hepatitis C virus infection**, 17th International Meeting on Hepatitis C Virus and Related Viruses, Yokohama, Japan, September 10, 2010
20. **Dissecting Hepatitis C virus infection and immunity in vivo**, Heidelberg Virology Seminars, German Cancer Research Center/University of Heidelberg, Heidelberg, Germany, December 7th, 2010
21. **Breaking species barriers: Studying human viral infections in small animal models**, Department of Microbiology, Mount Sinai School of Medicine, New York, NY, USA, January 4th, 2011
22. **Analysis of Hepatitis C virus entry in vivo**, TargetMeeting: Pathogenesis mechanisms of virus entry and replication, Online conference, February 5th, 2011
23. **Analysis of Hepatitis C virus infection in primary hepatocytes and small animal models**, Gastroenterology Unit, Massachusetts General Hospital/Harvard Medical School, Boston, MA, USA, February 15th, 2011
24. **Analysis of Hepatitis C Virus Infection and Immunity in Small Animal Models**, Division of Viral Diseases Seminar Series, National Institutes of Health, Bethesda, MD, February 17th, 2011
25. **Analysis of Hepatitis C Virus Infection and Pathogenesis in Small Animal Models**, 3rd JCA-AACR Special Joint Conference, Tokyo, Japan, March 2nd, 2011
26. **Animal models for Hepatitis C.** 46th Annual Meeting of the European Association for the Study of the Liver, Berlin, Germany, March 31st, 2011
27. **Development of in vivo Models for the Pre-Clinical Assessment of Hepatitis C Virus Therapeutics**, Cambridge Healthcare Institute's 6th Annual Drug Discovery Chemistry meeting, San Diego, CA, USA, April 13th, 2011
28. **Development of humanized mice for human malaria**, Research Advances in Malaria: Resistance to Existing Drugs and New Drug Development, Tres Cantos, Spain, June 3rd, 2011
29. **Analysis of hepatitis C virus infection in small animal models,** National Institutes of Health, Bethesda, MD, USA, July 6th, 2011
30. **Genetic dissection of hepatitis C virus infection**, FASEB Summer Research Conference, Saxton River, VT, USA, July 19th, 2011
31. **Humanized mice for the study of human infectious diseases**, National Academy of Science, Washington, DC, USA, August 11th, 2011
32. **Modeling human hepatotropic infections in vivo: hepatitis C and malaria**, Seattle Biomed, Seattle, WA, USA, September 12th, 2011

33. **A Comparison of Genetic Modification and Transplantation Approaches to Study Hepatitis C in Humanized Mouse Models**, New York Academy of Sciences, New York, NY, USA, September 16th, 2011
34. **Analysis of hepatitis C virus infection in primary cell culture systems and animal models**, The Rockefeller University Infectious Disease Biology retreat, Chappaqua, NY, USA, September 17th, 2011
35. **Drug discovery for hepatitis C virus**, Mercy Medical Center, Baltimore, MD, USA, September 23rd, 2011
36. **Breaking species barriers: Studying human infectious diseases in small animal models**, The Rockefeller University, Seminars in Clinical Research, New York, NY, USA, October 12th, 2011
37. **Development of a humanized mouse model for human malaria infection**, 3rd International Workshop on Humanized Mice, Pittsburgh, PA, USA, October 29, 2011
38. **New systems to study hepatitis C virus**, Annual meeting of the American Association for the Study of Liver Diseases, San Francisco, CA, USA, November 6th, 2011
39. **Dissection of hepatitis C virus infection in humanized mice**, The Scripps Research Institute, San Diego, CA, November 8th, 2011
40. **Modeling human infectious disease in humanized mice for basic biology and preclinical applications**, Life Sciences Summit, New York, NY, USA, November 16th, 2011
41. **Modeling Human Infectious Diseases In Vivo: Opportunities and Challenges of Human-Animal Chimeras**, Grand Rounds Department of Health Evidence and Policy, Mount Sinai School of Medicine, New York, NY, USA, January 10th, 2012
42. **Modeling human hepatotropic infections in vivo: hepatitis C and malaria**, Signature Interdisciplinary Program in Allergy, Immunology and Infectious Disease, University of South Florida, Tampa, FL, USA, June 1th, 2012
43. **Modeling human hepatotropic infections by animal engineering**, Vaccine and Infectious Disease Division's (VIDD) Faculty Seminar Series, Fred Hutchinson Cancer Research Center, Seattle, WA, USA, June 19th, 2012
44. **Genetically humanized mice for hepatitis C virus infection,** 14th International Symposium on Viral Hepatitis and Liver Disease, Shanghai, China, June 25th, 2012
45. **Pre-clinical genetically humanized animal models for hepatitis C infection,** Liver and Digestive Health Seminar Series, University College of London, London, Great Britain, September 25th, 2012
46. **Analysis of human hepatotropic infections in humanized mice,** 4th Twincore Symposium "Innovative animal models in infection research and immunology", Hannover, Germany, September 27th, 2012
47. **Studying hepatitis C virus infection and immunity in genetically humanized mice**, Karolinska Institute, Stockholm, Sweden, October 1st, 2012
48. **Characterizing human hepatotropic pathogens in humanized mice**, University of Zurich, Zurich, Switzerland, October 2nd, 2012
49. **Genetically humanized mouse models for hepatitis C virus infection**, University of Tartu, Tartu, Estonia, October 3rd, 2012
50. **Analysis of human hepatotropic infections in humanized mice**, SUNY Downstate Medical Center, Molecular and Cellular Biology Seminar Series, November 14th, 2012
51. **Breaking species barriers: Studying human hepatotropic infections in humanized mice**, Princeton University, Princeton, NJ, November 26th, 2012
52. **HCV virology and animal models**, 2012 Penn Center for Viral Hepatitis Symposium on HCV and Co-infections: New Insights and Emerging Therapies, Philadelphia, November 28th, 2012
53. **Breaking species barriers: analysis of human hepatotropic infections in humanized mice**, Columbia University, New York, NY, January 10th, 2013
54. **Study of human hepatotropic pathogens in humanized mice**, The Scripps Research Institute, Jupiter, FL, January 18th, 2013
55. **Development of humanized mouse model for the study of human hepatotropic pathogens**, The Jackson Laboratory, Bar Harbor, ME, January 24th, 2013
56. **Analysis of hepatitis C virus infection in humanized mice**, State University of New York, Syracuse, NY, April 25, 2013

57. **Breaching species barriers: development of animal models for hepatitis C virus infection and pathogenesis,** Symposium on HCV animal model and vaccine development, Tallinn, Estonia, May 17th, 2013
58. **Humanized mouse models**, 8th HepCAM Meeting, Cambridge, MA, June 28th, 2013
59. **Genetically humanized mice for the study of Hepatitis C**. 5th Israeli Molecular Liver Conference, Tel Aviv, Israel, July 10th, 2013
60. **Determinants of hepatitis C virus interspecies tropism.** The Weizmann Institute, Rehovot, Israel, July 14th, 2013
61. **Analysis of Liver Diseases in Humanized mice.** Humanized Mice in Translational Biomedical Research, The Jackson Laboratory, Bar Harbor, Maine, September 23rd, 2013
62. **Challenges with the development of immune competent mouse models for hepatitis C**. EASL Monothematic Conference, Lyon, France, November 29, 2013
63. **Feasibility of Producing a Fully Immunocompetent Animal Model for HCV Infection.** HEPDART 2013 Frontiers in Drug Development for Viral Hepatitis, Big Island, Hawaii, USA, December 9, 2013
64. **Breaking species barriers: Studying human infectious diseases in humanized mice**, Princeton University, Department of Ecology and Evolutionary Biology, February 19, 2014
65. **Analysis of viral hepatitis in humanized mice**, Zhejiang University, Hangzhou, China, February 25, 2014
66. **Characterization of viral and parasitic pathogens in humanized mice**, Naval Medical Research Unit 6, Lima, Peru, March 27, 2014
67. **Generation of mouse models for viral hepatitis**, Gilead Sciences, Foster City, CA, March 31, 2014
68. **Breaching species barriers of HCV: Lessons for HBV?**, Baruch Blumberg Institute, Doylestown, PA, April 3, 2014
69. **Development of preclinical models for hepatitis C**, Rosalind Franklin University Medical School, Chicago, IL, April 15, 2014
70. **Generation of humanized mouse models for malaria**. New York Academy of Sciences, New York, NY, April 25, 2014.
71. **Defining and overcoming barriers of hepatitis C virus species tropism**. (Plenary talk) American Society for Microbiology 114th General Meeting, Boston, MA, May 19th 2014
72. **Generation of Animal Models for Hepatitis C**. Determinants of Elimination and Persistence of Hepatitis Viruses, German Cancer Research Center, Heidelberg, Germany, May 20th, 2014
73. **Insights in human infectious diseases from humanized mice**. Princeton University, Department of Molecular Biology Reunion seminar, Princeton, NJ, May 30th, 2014
74. **Humanized mouse model for hepatitis C virus infection and immunity**, Division of Gastroenterology and Liver Diseases, Albert Einstein College of Medicine, New York, NJ, June 11th, 2014
75. **Advances in HCV Virology**, US-Georgia Program-Development Workshop, on HIV/AIDS, TB and Hepatitis, Tbilisi, Georgia, June 17th, 2014
76. **Utility of humanized mouse model for the of study hepatitis C virus infection and immunity**, Center for Inflammation and Immunity, Rutgers University, Newark, NJ, June 20th, 2014
77. **Breaking species barriers: shedding light on the host tropism of hepatitis C virus**, Plenary talk (The Eli Lilly and Company Lecturer), American Society of Virology Annual Meeting, Fort Collins, CO, June 22nd, 2014
78. **Broadening the species tropism of hepatitis C virus through genetic adaptation**, Department of Microbiology & Immunology Seminar Series, Jefferson Medical College, Philadelphia, PA, September 16, 2014
79. **Impact of broadly neutralizing antibodies on hepatitis C virus infection**, Symposium on "Infection and Cancer", German Cancer Research Center, Heidelberg, Germany, December 12th, 2014
80. **New animal models for studying persistent hepatitis virus infections**, 17th International Conference on Emerging Infectious Diseases (EID), Taipei, Taiwan, January 25th, 2015
81. **HCV animal models in antiviral drug and vaccine development**, Falk workshop: Viral hepatitis – from bench to bedside, Munich, Germany, January 29th, 2015
82. **Dissection of tropical viral and parasitic diseases in humanized mice,** Center for Infectious Disease Dynamics, Pennsylvania State University, PA, February 5th, 2015

83. **Analysis of human infectious diseases in humanized mice**, Zheijiang University, Hangzhou, China, March 10th, 2015
84. **Defining barriers of hepatitis C virus tropism**, Institute Pasteur, Shanghai, China, March 13th, 2015
85. **Analysis of host barriers of human hepatitis viruses**, Tsinghua University, Beijing, China, March 17th, 2015
86. **Restrictions of hepatitis C virus host tropism**, Löffler-Frosch Award Lecture, Annual meeting of the German Society of Virology, Bochum, Germany, March 19th, 2015
87. **Chronic viral infections in humanized mice**, SFB841 Symposium 2015 "Controlling Inflammation", University Medical Centre Hamburg-Eppendorf, Hamburg, Germany, March 27th, 2015
88. **Dissection of malaria and yellow fever in humanized mice,** Research Seminar Series, Blantyre Malaria Project, Queen Mary Hospital/University of Blantyre, April 7th, 2015
89. **Defining host responses limiting the host range of human-tropic pathogens,** University of Washington, Microbiology Seminar Series, Seattle, WA, May 7th, 2015
90. **Analysis of Host Responses to Human Hepatotropic Pathogens in Humanized Mice**, Penn State University, State College, PA, May 11, 2015
91. **Analysis of human infectious diseases in humanized mice**, Memorial Sloan-Kettering Cancer Center, New York, NY, June 4th 2015
92. **Analysis of host responses limiting the species tropism of human hepatotropic pathogens**, Child Health Institute, Rutgers University, New Brunswick, NJ, June 8th, 2015
93. **Characterization of human hepatotropic infections in humanized mice**, Johns Hopkins School of Public Health, Baltimore, MD, September 11th, 2015
94. **Defining the host range restriction of human hepatotropic viruses**, Plenary lecture at the National Virology Conference, Morelos, Mexico, September 23rd, 2015
95. **Breaking species barriers: dissecting the host tropism of human viral pathogens**, Butler Seminar Series, Princeton University, Princeton, NJ, September 30th, 2015
96. **Modeling human hepatitis virus infections in humanized mice**, Inflammation and Signalling symposium, Fox Chase Cancer Center, Philadelphia, NJ, October 23rd, 2015
97. **Deciphering the Host Range of Human Tropic Pathogen**, Plenary lecture, ASM Theobald Smith Society, Rutgers University, New Brunswick, NJ, November 5th, 2015
98. **Development of animal models to study virus-induced hepatocarcinogenesis,** Cancer Institute of New Jersey, New Brunswick, NJ, December 16th, 2015
99. **Determinants of host range restrictions of human hepatotropic viruses**, Plenary lecture, Viruses: At the Forefront of Virus-Host Interactions, Basel, Switzerland, January 28th, 2016
100. **Development of humanized mouse models to study chronic viral hepatitis**, Plenary lecture, International Workshop on Humanized Mice 5, Zurich, Switzerland, January 29th, 2016
101. **Mouse models to study HCV-specific T cell responses**, Workshop of the European Association for the Study of the Liver, Freiburg, Germany, February 5th, 2016
102. **Towards an immunocompetent animal model for hepatitis B virus infection**, Gilead Sciences, Foster City, CA, March 30th, 2016
103. **Breaking species barriers: Study of Human infectious Diseases in Humanized mice**, Meeting of the Canadian Chapter of the Princeton Alumni Association, Montreal, Canada, April 11th, 2016
104. **Development of pre-clinical animal models for HBV/HDV infections, Plenary talk at the** Hepatitis Delta International Network meeting at EASL, Barcelona, Spain, April 13th, 2016
105. **Analysis of transcriptional responses to RNA viruses across diverse non-human primate lineages**, RNA & Infection Symposium, University of Wurzburg/Helmholtz Center for Infection Research, Würzburg, Germany, April 28th, 2016
106. **Determinants of host range restrictions of human hepatotropic pathogens,** 6th Summer School on Infection Research, German Center for Infection Research/Helmholtz Society, Schloss Buchenau, June 8th, 2016
107. **Species-specific differences in virus-immune system interactions dictate outcome of yellow fever virus infection**, Institute Pasteur, Shanghai, China, July 8th, 2016
108. **Deciphering host range restrictions of human-tropic pathogens,** Institute of Virology, Chinese Academy of Sciences, Wuhan, China, July 13th, 2016

109. **Deciphering the species tropism of hepatitis C and yellow fever viruses,** Department of Life Sciences, Wuhan University, Wuhan, China, July 20th, 2016
110. **Deciphering Host Range Restrictions of Human Hepatitis Viruses,** Plenary Lecture, 10th Australasian Conference on Viral Hepatitis, Gold Coast, Australia, September 30th, 2016
111. **Gaps in Experimental Systems Required for Preclinical Testing of HCV Vaccine Candidates,** 10th Australasian Conference on Viral Hepatitis, Gold Coast, Australia, September 30th, 2016
112. **New model systems for hepatitis C**, Keynote lecture, 23rd International Symposium on Hepatitis C Virus and Related Viruses, Kyoto, Japan, October 14, 2016
113. **Animal models of Viral Hepatitis**, Plenary lecture, 6th European Congress of Virology, Hamburg, Germany, October 20th, 2016
114. **Genetically Humanized Mouse Models for Human Hepatitis Viruses**, Plenary lecture, Basic Science Symposium, American Association for the Study of Liver Diseases, The Liver Meeting, Boston, MA, November 12th, 2016
115. **Host Range Restrictions of human (hepatotropic) pathogens,** Department of Microbiology/Immunology, University of North Carolina, Chapel Hill, NC, March 7th, 2017
116. **New insights into acute and chronic hepatitis virus infections,** Pasteur Colloquium, Institute Pasteur Shanghai, Shanghai, China, March 29th, 2017
117. **Development of experimental models for human hepatitis virus infections**, 4th CCID Hangzhou Forum, Hangzhou, China, March 31st, 2017
118. **Experimental models for chronic hepatitis B and delta virus infections**, Cancer Institute of New Jersey, New Brunswick, NJ, April 13th, 2017
119. **Characterization of arthropod-borne flavivirus infections in humanized mice: Towards molecular mechanisms governing viral pathogenesis**, Climate and Disease Conference, Princeton University, Princeton, NJ, May 5th 2017
120. **New Insights into the Molecular Biology of Hepatitis delta and E viruses**, Twincore – Helmholtz Center for Infection Biology, Hannover, Germany, June 19th 2017
121. **New insights into the molecular biology of hepatitis E virus and hepatitis delta virus host tropism**, University of Heidelberg, Heidelberg, Germany, June 20th 2017
122. **New Insights into the Molecular Biology of Hepatitis delta and E viruses**, University of Lausanne, Switzerland, June 21st 2017
123. **Insights into the molecular biology of acute and chronic hepatitis virus infections**, Tsinghua University, Beijing, China, July 31st, 2017
124. **The return of Yellow Jack: new insights into yellow fever virus pathogenesis**, Department of Molecular Biology, Butler Seminar Series, Princeton University, Princeton, NJ, October 11, 2017
125. **Host range restrictions of human viral pathogens**, Zhejiang – Princeton Research Symposium, Zhejiang University, Hangzhou, China, October 17th, 2017
126. **Dissecting the molecular virology of acute and chronic hepatitis viruses,** University of Science and Technology China (USTC), Hefei, China, October 18th, 2017
127. **New Insights into flavivirus host tropism and pathogenesis,** University of Pennsylvania, Department of Microbiology Seminar Series, Philadelphia, PA, November 15th, 2017
128. **Novel in vitro platforms and humanized mouse models to study hepatitis B virus persistence**, Regeneron Pharmaceuticals, Tarrytown NY, December 14th, 2017
129. **Development of experimental models to study hepatitis B virus persistence and immunity**, Novartis Institutes for Biomedical Research, Emeryville, CA, January 17th, 2018
130. **New insights into acute and chronic viral hepatitis,** Genobiotec – 5th International Congress for Biotechnology and Genomics, Monterey, Mexico, June 7th, 2018
131. **Animal models for hepatitis E and C viruses**, 16th International Symposium on Viral Hepatitis and Liver Disease, Global Hepatitis Summit, Toronto, Canada, June 17th, 2018
132. **Multipronged approaches for developing immunocompetent animal models for HBV infection, immunity and pathogenesis**, NIH Workshop on Critical Resources for Hepatitis B Research, Rockville, MD, September 12th, 2018
133. **New experimental platforms to analyze host responses to hepatitis B and delta virus infections,** Baruch Blumberg Institute, Doylestown, PA, November 15th, 2018
134. **Modeling host responses to hepatotropic pathogens in humanized mice**, Regeneron's

Workshop on Humanized Immune System Mice, Regeneron Pharmaceuticals, Tarrytown, NY, November 30th, 2018

135. **Utility of self-assembling primary hepatocyte co-cultures for the study of host responses to hepatitis B virus and antiviral drug screening**, Glaxo-Smith-Kline, Collegeville, PA, January 28th, 2019
136. **Host range restrictions of human viral pathogens**, Stanford University, Department and Microbiology and Immunology, Palo Alto, CA, February 6th, 2019
137. **Breaking the species barrier of hepatitis B and delta viruses**, Oregon Health and Science University, Vaccine and Gene Therapy Institute, March 19th, 2019
138. **Deciphering host range restrictions of human viral pathogens,** Yale University, Department of Microbial Pathogenesis Seminar Series, New Haven, CT, May 9th, 2019
139. **Modeling (HIV-exacerbated) viral hepatitis in humanized mice**, NIH/NIAID workshop, Rockville MD, May 30th, 2019
140. **Model Systems to Assess Vaccine-Induced Immune Responses in vivo,** Keystone Symposium Positive Sense RNA Viruses, Killarney, Ireland, June 12th, 2019
141. **Deciphering host range restrictions of human viral pathogens**, 18th Awaji International Forum on Infection and Immunity, Awaji Island, Japan, September 13th, 2019.
142. **New insights into hepatitis E virus**, Institute for Microbiology and Immunology, University of Osaka, Osaka, Japan, September 13th, 2019
143. **Mouse models based on stem cell derived hepatocytes**, *2019* International *HBV Meeting*. The molecular biology of *hepatitis B* viruses. ICE symposium, Melbourne, Australia, October 1st, 2019
144. **Beyond Hepatitis C Virus: Novel Insights into Acute and Chronic Hepatitis Virus Infections,** Keynote lecture, 26th International Symposium on Hepatitis C virus and Related Viruses, Seoul, South Korea, October 7th, 2019
145. **Hitting viruses where it hurts: New insights in replicative mechanisms of hepatitis B and C viruses**, Department of Infectious Diseases, University of Copenhagen, Copenhagen, Denmark, December 4th, 2019
146. **Hepatitis E virus – molecular virology,** The (digital) International Liver Congress (EASL), August 27th, 2020
147. **New insights into the mechanism of hepatitis B virus persistence**, Memorial Sloan-Kettering Cancer Center, ID Advanced Topics Lecture Series, New York, NY, September 25th, 2020
148. **New insights into the mechanism of hepatitis B virus persistence**, Cancer Institute of New Jersey, New Brunswick, NJ, November 18th, 2020
149. **The making of a killer: new insights in the molecular mechanism of hepatitis B virus persistence**, Schaller eSymposium, Center for Integrative Disease Research, Heidelberg, Germany, April 22nd, 2021
150. **Causing trouble in the liver: New insights in the molecular biology of human hepatitis viruses**, The Catholic University of America, Washington, D.C., September 20th, 2021
151. **Novel insights into the infectious cycles of human hepatotropic viral pathogens**, International ITU Molecular Biology and Genetics Student Congress, Istanbul Technical University, Istanbul, Turkey, October 1st, 2021
152. **Looking under the hood of a killer virus: New insights into hepatitis B virus persistence and host tropism,** University of Heidelberg/German Cancer Research Center, Heidelberg, Germany, October 22nd, 2021
153. **Looking under the hood of a killer virus: New insights into the molecular biology of hepatitis B virus**, Washington University, St. Louis, MO, November 16th, 2021
154. **Looking under the hood of a killer virus: New insights into the molecular biology of hepatitis B virus,** National Emerging Infectious Disease Laboratory, Boston University, Boston, MA, April 6th, 2022
155. **New insights into the molecular mechanism of HBV cccDNA formation,** 2nd Annual Chronic HBV Drug Development Summit, Boston, MA, April 25th, 2022
156. **Utility of Animal Models for Evaluating Preclinically Novel HBV Therapeutics,** 2nd Annual Chronic HBV Drug Development Summit, Boston, MA, April 26th, 2022
157. **Mechanistic insights into structure and function of hepatitis E virus ORF1 protein**, TRR179

International Conference: Viral Hepatitis and beyond: from basic science to cure, Freiburg, Germany, May 31st, 2022

158. **cccDNA formation and DNA repair processes**, 9th ANRS HBV Cure Workshop, Lyon, France, July 5th, 2022
159. **Two stones, one bird: Exploring why two receptors exist for the same antiviral signaling pathway**, Keynote lecture, 14th Twincore Symposium/13th International VPM Days, Hannover, Germany, September 15th, 2022
160. **HBV cccDNA biogenesis – more questions than answers**, International Hepatitis B Virus Meeting, Paris, France, September 19th, 2022

**E. Service**

- Committees:
  - 2022-present: Chair of the Princeton University Institutional Biosafety Committee (IBC)
  - 2022-present: Committee Member for the Rutgers Cancer Institute of New Jersey's Immune Monitoring and Flow Cytometry's Shared Resource Advisory Committee
  - 2021-2022: Chair of the MolBio faculty search committee "Immunology"
  - 2021-present: Vice Chair of the Princeton University Institutional Animal Care and Use Committee (IACUC), interim IACUC chair (June-August)
  - 2020-2021: Member of the MolBio faculty search committee "Immunology"
  - 2019-2020: Chair of the MolBio faculty search committee "Virology"
  - 2018-2019: Member of the MolBio faculty search committee "Cryo-EM"
  - 2017: Member of the Institutional Faculty Focus Group on Administrative Workload in Research
  - 2017-present: Member of the Princeton-Rutgers MD PhD admissions committee
  - 2015-2018: Member of the Princeton University Institutional Priorities Committee ("PriComm")
  - 2014-present: Member of the Princeton University Institutional Animal Care and Use Committee (IACUC)
  - 2013-2016 Member of the MolBio committee faculty committee on corporate relations
  - 2013-2016 Member of the MolBio committee on innovation in funding
  - 2013-present: Member of the MolBio graduate admissions committee
  - 2014: Chair of the scientific retreat of the Department of Molecular Biology
  - 2013: Co-chair of the scientific retreat of the Department of Molecular Biology
  - Graduate research thesis committees: Brian Silver (Nelson lab, 2017-2019), Nicolas Morante (Burdine lab, 2013-2017), Oliver Huang (Enquist lab, 2014-2020), Andrew Esteves (Enquist/Schwarzbauer labs, 2017-2022), Jongbeom Park (Mallarino/Donia labs, 2021-present), Kimberly Sabsay (te Velthuis/Wingreen lab, 2022-present)
  - 2014: Reviewer for the Myhrvold-Havranek Graduate Fellowship for Innovative Thinking in Mathematics, Physics or Molecular Biology
  - 2013-present: Examiner for Ph.D. and MD/Ph.D. qualifying exams
  - 2014-present: Faculty Advisor, Forbes College, Princeton University
  - 2014: Fellow of Forbes College, Princeton University
  - 2013-2014 Member of the MolBio faculty search committee "Host & Microbes"

- University teaching
  - Princeton University
    - MOL 340 Molecular and Cellular Immunology, fall 2014, 2015, 2016, spring 2018, 2019, 2020, 2021, offered every year
    - GHP 400 / WWS 382 / MOL 499 / EEB 400 Seminar in Global Health and Health Policy (with Drs. Shenk and Mahmoud), spring 2015
    - MOL 516 Genetics of Multicellular Organisms (with Drs. Gavis and Rose), spring 2014
  - Human hepatotropic pathogens, Guest professor at Zhejiang University, Hangzhou, China, spring 2015