

Curriculum Vitae – Prof. Judith Gottwein, born 24.02.1975

Current position:

- Afdelingslæge / Senior Researcher, CO-HEP, Department of Infectious Diseases, Copenhagen University Hospital Amager and Hvidovre (AHH), Denmark
- Professor in Experimental Approaches for the Control of Hepatitis C Virus, Copenhagen Hepatitis C Program (CO-HEP). Faculty of Health and Medical Sciences, Department of Immunology and Microbiology (ISIM), University of Copenhagen (UCPH), Denmark

Education:

- 14. Feb 2005: License to Practice and to Practice Independently as a Medical Doctor in Denmark
- 4. Nov 2003: License to Practice Independently as a Medical Doctor in Germany (*Approbation*)
- 6. Dec 2001: Doctoral Degree (Dr. med.), Heidelberg University, Germany
- 15. Nov 2001: Medical Doctor Degree (MD), Heidelberg University
- 1994-2001: Studies of Medicine, Heidelberg University including training at Dept. of Pathology, Case Western Reserve University, Cleveland, Ohio, USA (1 year), Dept. of Internal Medicine, University Hospital Zürich, Switzerland (4 months), Dept. of Neurology, Barts and The London School of Medicine, London, UK (4 months), Dept. of Surgery and Neurosurgery, University Clinic Mannheim (4 months).

Employment History:

- 01. Sept 2019 - present: Professor, CO-HEP, ISIM, Faculty of Health and Medical Sciences, UCPH, Denmark. Afdelingslæge, CO-HEP, Dept. of Infectious Diseases, AHH, Denmark
- 01. Sept 2009 - present: Senior Researcher, CO-HEP, Dept. of Infectious Diseases, AHH, Denmark
- 01. Sept 2014 - 31. Aug 2019: Associate Professor, CO-HEP, ISIM, Faculty of Health and Medical Sciences, UCPH, Denmark
- 01. Sept 2005 - 31. Aug 2009: Ph.D. equivalent, Researcher, CO-HEP, Dept. of Infectious Diseases, AHH, Denmark
- 01. Jan 2005 - 31. Aug 2005: Clinician and Researcher, Dept. of Internal Medicine I, University Hospital Bonn, Germany
- 01. Feb 2003 - 31. Aug 2004: Clinician, Dept. of Internal Medicine, Spital Limmattal, Schlieren, Switzerland
- 15. Jan 2002 - 31. Jan 2003: Researcher and Clinician, Dept. of Neuropathology, University Hospital Zürich, Switzerland

Key research activities:

- Virology (hepatitis C virus, severe acute respiratory system coronavirus 2)
- Development of whole virus inactivated vaccines
- Study of neutralizing antibodies
- Study of antivirals and antiviral resistance
- Development of cell culture systems for study of viruses

Brief outline of key research contributions:

My research focuses on basic and translational studies in virology. While my long-term research focus is hepatitis C virus (HCV), recent work has also focused on severe acute respiratory system coronavirus 2 (SARS-CoV-2). On an international level, I was the first to develop molecular clones of HCV genotypes 3 to 6 and I have pioneered development of infectious HCV cell culture systems for the major genotypes. I have used these systems for studies of various antivirals, their mechanism of action and associated resistance. Further, my research revealed that different HCV variants showed differential sensitivity to neutralizing antibodies, indicating existence of various HCV serotypes, but also that immunization with an envelope subunit vaccine was able to induce cross-genotype neutralizing antibodies. I have developed systems for production of serum-free genotype 1-6 HCV with unique characteristics, as well as bioprocesses for HCV whole viral particle vaccine antigen production. These developments allowed studies to obtain proof-of-concept for the efficacy of a whole virus inactivated HCV vaccine candidate in mouse immunogenicity studies (unpublished). Finally, I have contributed to important functional studies on HCV entry and studies on the function of specific HCV genome regions and proteins. Recent research on SARS-CoV-2 has focussed on

identification of antivirals with efficacy against this virus and development of bioprocesses facilitating production of a whole virus inactivated SARS-CoV-2 vaccine.

Summary of Publications:

ORCID: 0000-0003-2805-0256

-59 peer-reviewed publications, 43 with impact factor (IF) >5; 20 with IF >10; 11 with IF >20; 15 first and 14 corresponding authorships; citations >3900, h-index 30 (google scholar, 01/2022)

-Patents: 16 issued (6 as first and 1 as senior author). 2 applications. HCV culture systems licensed to Apath, USA

Supervision:

-Research assistants: 2007-2020: Knudsen, Lademann, T. Jensen, Hansen, Serre, Mathiesen, S. Jensen, Tang, Pihl, Gammeltoft, Hernandez

- Master students: 2007-2020: T. Jensen, S. Jensen, Pihl, Alzua, Offersgaard, Gammeltoft, Hernandez.

- PhD students: thesis 2014-2020: T. Jensen, Mathiesen, Serre. Jensen, Vélazquez-Moctezuma, Pham, Pihl; ongoing: Alzua, Offersgaard, Zhou, Gammeltoft, Antúnez, Zhe, Hernandez

- Postdoctoral fellows: 2014-2019: T. Jensen, Mathiesen, Serre, Fahnøe; ongoing: Feng, Pihl

Teaching Activities:

-Virology Lectures and practical exercises for 3rd year Medical students on BSc level – Mikrobiologisk Øvelseskursus, UCPH

-Virology Lectures for 1st year Human Biology students on MSc level – Immunology and Microbiology, UCPH

Scientific recognitions:

- Presentations at scientific meetings including invited presentations at EASL Annual Meeting, International Symposium on Hepatitis C Virus and Related Viruses, ESACT Annual Meeting, HIV and Hepatitis Nordic Conference, Viruses.

-Ad hoc reviewer for Antimicrobial Agents and Chemotherapy, Antiviral Research, Biotech Journal, Clinical Microbiology, Hepatology, Journal of Viral Hepatitis, Scientific Reports, Viruses.

-EASL Young Investigators´ Bursary (2007); EASL Registration Bursary Award (2009). Young Investigator Travel Award, International Meeting on Hepatitis C Virus and Related Viruses (2007, 2008, 2010). German national fellowship award (*Studienstiftung des Deutschen Volkes*): 1994-2001.

Collaborators:

Christensen and Petersen, Statens Serum Institute, Denmark; Genzel, Marichal-Gallardo and Reichl, Max Planck Institute Magdeburg, Germany; Grzyb, University of Gdańsk, Poland; Krarup, Aalborg University, Denmark; J. Law, University of Alberta, Canada; M. Law, The Scripps Research Institute, USA; Lehmann, Case Western Reserve University, USA; Meuleman, Ghent University, Belgium; Pawlotsky, Henri Mondor University Hospital Créteil, France; Pravsgaard Christensen and Randrup Thomsen, UCPH, Denmark; Rice, The Rockefeller University, USA; Sarrazin, University Hospital Frankfurt, Germany; Seeberger, Max Planck Institute Potsdam, Germany; Weiss, AHH, Denmark; Wolff, University of Applied Sciences, Germany; Lin, Esco Aster, Singapore.

Research Grants received last 5 years:

Hvidovre Hospital Research Foundation: 2021; Innovation Fund Denmark (Innoexplorer grant): 2021-2022; 2019-2020; Region Hovedstadens Forskningsfond (co-written Jens Bukh): 2019-2021; Independent Research Foundation, Denmark: 2020-2023; The Carlsberg Foundation: 2022; The Novo Nordisk Foundation: Pre-Seed Grant (co-written Jens Bukh): 2017-2019; The Toyota Foundation: 2014; 2018; Læge Sophus Carl Emil Friis og hustru Olga Doris Friis´ Legat: 2018-2020