Curriculum vitae

PERSONAL INFORMATION

Family name, First name: Merkler, Doron
Research ID: N-9157-2016
Date of birth: 22.04.1974, Ramat Gan, Israel
Nationality: Swiss, Israel
Professional address: Department of Pathology and Immunology (PATIM)
Department of Diagnostic (DDIAG)
Division of Clinical Pathology
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- **CURRENT POSITION(S)**

As of 2020 Full Professor, Deputy Head of the Division of Clinical Pathology, Department of Pathology and Immunology (UNIGE) & Department of Diagnostics (HUG), Switzerland
- Senior Physician in Neuropathology in the division of clinical pathology
- Head of the image analysis laboratory in the division of clinical pathology

- **PREVIOUS POSITIONS**

2016 – 2020 Associate Professor and Consultant in Neuropathology, University and University Hospitals of Geneva, Dept. of Pathology and Immunology, Switzerland

2010 – 2016 Assistant Professor and Consultant in Neuropathology, University and University Hospitals of Geneva, Dept. of Pathology and Immunology, Switzerland

2009 – 2010 Consultant in neuropathology at the Department of Neuropathology (University Medical Center, Göttingen, Germany)

2003 – 2008 Resident in Clinical Neuropathology, University Medical Center Göttingen, Department of Neuropathology, Germany (head: Prof. W. Brück)

2002 Research fellow, Brain Research Institute, University of Zurich, and Department of Biology, Swiss Federal Institute of Technology Zurich, Switzerland

- **EDUCATION**

2009 Venia Legendi (Habilitation) in *Neuropathology* at the Georg August University, Göttingen, Germany

2003-2006 & 2008 Research associate and training as a specialist in neuropathology (University Medical Center, Göttingen, Germany)

2007 Visiting scientist (scholarship from the University of Goettingen) at the Institute of Experimental Immunology (heads: Profs. R. Zinkernagel and H. Hengartner), University Hospital Zurich, Switzerland

1998-2002 MD thesis in Neuroscience with Martin Schwab, PhD, Professor of Neuroscience at the University & ETH Zurich, Switzerland

2001-2002 Postgraduate course in Experimental Medicine at the University of Zurich, Switzerland (organized by Prof. Zapf, Dept. of internal medicine, University Hospital of Zurich, Switzerland)

2000 United States Medical Licensure Examination (USMLE) step 1 and 2

1994-2000 Medical School, State examination (University of Zürich, Medical Faculty, Switzerland)

- **FELLOWSHIPS AND AWARDS**

2022 Cloëtta Prize for outstanding contributions to biomedical research.

2010 – 2016 Stipendiary professorship of the Swiss National Science Foundation

2009 Award for best "Habilitation" of the Faculty of Medicine, UMG, Göttingen, Germany

2007 Award for outstanding publication, Göttingen Research Council, Göttingen, Germany

2006 Research Scholarship, University Göttingen, UMG, Göttingen, Germany

2001 Scholarship for a Postgraduate Course in Experimental Medicine and Biology, Swiss National Science foundation.

- **INSTITUTIONAL RESPONSIBILITIES**

As of 2020 Scientific Coordinator of the Geneva Centre for Inflammation Research (https://www.unige.ch/medecine/gcir/en/about-us/)

As of 2019 President of the animal facility commission, University of Geneva

As of 2016 Responsible of specialist training in Neuropathology
As of 2012 Responsible for biosafety level 2 animal facilities, University of Geneva, Switzerland
As of 2012 Member of the commission for the MD PhD Program, Medical Faculty of Geneva

- **MEMBERSHIPS OF SCIENTIFIC SOCIETIES**

2023- Member of the Swiss Society of Pathology
2018- Member of the Commission of Experimental Immunology of the Swiss Society of Allergology and Immunology (SSAI), Switzerland
2019-2022 President of the Swiss Society of Neuropathology, Switzerland
2019- Member of the Scientific Committee of ARSEP Foundation (France)

- **PUBLICATION RECORD**

As of 2025: h-index: 69; >18k citations (Source: Google Scholar)

PUBLICATIONS (**Selection**)

Shammas G, Piccinno M, Egervari K, Lemeille S, Mariotte A, Maltese F, Panzeri A, Wagner I, Fonta N, Furlan T, Kreutzfeldt M, Vincenti I, Yermanos A, Page N, Bellone C, Picon Munoz C, Di Liberto G, Merkler D. Neurons undergo IFNγ-driven persistent epigenetic shifts and synaptopathy in encephalitis. **Neuron** *in press*

Di Liberto G, Egervari K, Vogrig A, Spatola M, Piccinno M, Vincenti I, Wagner I, Kreutzfeldt M, Endmayr V, Ostertag K, Rahimi J, Vicino A, Pröbstel AK, Meyronet D, Frank S, Prinz M, Hewer E, Brouland JP, de Leval L, Parkkinen L, Draganski B, Desestret V, Dubey D, Pittock SJ, Roemer SF, Dickson DW, Höftberger R, Irani SR, Honnorat J, Du Pasquier R, **Merkler D.** Neuronal pSTAT1 hallmarks synaptic pathology in autoimmune encephalitis against intracellular antigens. **Acta Neuropathol**. 2025 Apr 25;149(1):35

Fonta N, Page N, Klimek B, Piccinno M, Di Liberto G, Lemeille S, Kreutzfeldt M, Kastner AL, Ertuna YI, Vincenti I, Wagner I, Pinschewer DD, **Merkler** D. Oligodendrocyte-derived IL-33 regulates self-reactive CD8+ T cells in CNS autoimmunity. J Exp Med. 2025 Jul 7;222(7)

Vincenti I, Page N, Steinbach K, Yermanos A, Lemeille S, Nunez N, Kreutzfeldt M, Klimek B, Di Liberto G, Egervari K, Piccinno M, Shammas G, Mariotte A, Fonta N, Liaudet N, Shlesinger D, Liuzzi AR, Wagner I, Saadi C, Stadelmann C, Reddy S, Becher B, **Merkler D**. Tissue-resident memory CD8+ T cells cooperate with CD4+ T cells to drive compartmentalized immunopathology in the CNS. **Science Translational Medicine,** *2022 Apr 13;14(640)*

Page N, Lemeille S, Vincenti I, Klimek B, Mariotte A, Wagner I, Di Liberto G, Kaye J, **Merkler D**. Persistence of self-reactive CD8+ T cells in the CNS requires TOX-dependent chromatin remodeling. **Nat Commun**. 2021 Feb 12;12(1):1009.

Jafari M, Schumacher AM, Snaidero N, Ullrich Gavilanes EM, Neziraj T, Kocsis-Jutka V, Engels D, Jürgens T, Wagner I, Weidinger JDF, Schmidt SS, Beltrán E, Hagan N, Woodworth L, Ofengeim D, Gans J, Wolf F, Kreutzfeldt M, Portugues R, **Merkler D***, Misgeld T*, Kerschensteiner M*. Phagocyte-mediated synapse removal in cortical neuroinflammation is promoted by local calcium accumulation. **Nat Neurosci**. 2021 Mar;24(3):355-367. ** **shared last-authorship***

Steinbach K, Vincenti I, Egervari K, Kreutzfeldt M, van der Meer F, Page N, Klimek B, Rossitto-Borlat I, Di Liberto G, Muschaweckh A, Wagner I, Hammad K, Stadelmann-Nessler C, Korn T, Hartley O, Pinschewer DD, **Merkler D**. Brain-resident memory T cells generated early in life predispose to autoimmune disease in mice. **Science Translational Medicine**, 2019 Jun 26;11(498)

Di Liberto G, Pantelyushin S, Kreutzfeldt M, Page N, Musardo S, Coras R, Steinbach K, Vincenti I, Klimek B, Lingner T, Salinas G, Lin-Marq N, Staszewski O, Joana Costa Jordão M, Wagner I, Egervari K, Mack M, Bellone C, Blümcke I, Prinz M, Pinschewer DD, **Merkler D**. Neurons under T cell attack coordinate phagocyte-mediated synaptic stripping. **Cell**, 2018 Aug 28.

Page N, Klimek B, De Roo M, Steinbach K, Soldati H, Lemeille S, Wagner I, Kreutzfeldt K, Di Liberto G, Vincenti I, LIngner T, Salinas G, Brück W, Simons M, Murr R, Kay J, Zehn D, Pinschewer DD, **Merkler D**. TOX expression governs the encephalitogenic potential of microbe-induced autoreactive CD8+ T cells. **Immunity**. 2018 May 15;48(5):937-950

Kallert S, Darbre S, Bonilla W, Kreutzfeldt M, Page N, Müller P, Kreuzaler M, Lu M, Favre S, Kreppel F, Löhning M, Luther S, Zippelius A, **Merkler D***, and Pinschewer D*. Replicating viral vector platform exploits alarmin signalsfor potent CD8+ T cell-mediated tumor immunotherapy. **Nat. Commun***.* 2017 May 26;8*: * **shared last-authorship***

Steinbach K, Vincenti I, Kreutzfeldt M, Page N, Muschaweckh A, Drexler I, Pinschewer D, Korn T, **Merkler D**. Brain-resident memory T cells represent an autonomous cytotoxic barrier to viral infection. **J Exp Med**. 2016 July 4

Kreutzfeldt M, Bergthaler A, Fernandez M, Brück W, Steinbach K, Vorm M,Coras R, Blümcke I, Bonilla WV, Fleige A, Forman R, Muller W, Becher B, Misgeld T, Kerschensteiner M, Pinschewer DD & **Merkler D.** Neuroprotective intervention by interferon-γ blockade prevents CD8+ T cell-1 mediated dendrite and synapse loss. **J Exp Med**. 2013 Sep 2

Pinschewer DD, Schedensack M, Bergthaler A, Horvath E, Brück W, Löhning M, **Merkler D**. T cells can mediate viral clearance from ependyma but not brain parenchyma in a major histocompatibility class I- and perforin-independent fashion. **Brain**, 2010 Apr;133(Pt 4):1054-66.

Merkler D, Horvath E, Bruck W, Zinkernagel RM, de la Torre JC and Pinschewer DD. "Viral *déjà vu*" elicits organ-specific immune disease independent of reactivity to self. **J Clin Invest** 2006 May;116; 1254-1263

Complete publication list: http://www.ncbi.nlm.nih.gov/pubmed/?term=Merkler+Doron%5BAuthor%5D