

## Prof. Francesca Ronchi, PhD

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### 1 | General information

Contact details: Department of Microbiology, Infectious Diseases and Immunology, Charité – Universitätsmedizin Berlin, Campus Benjamin Franklin, Campus Charité Mitte and Campus Virchow-Klinikum (CBF-CVK-CCM)  
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Current position: Professor of Microbiology (W2), Department of Microbiology, Infectious Diseases and Immunology, Charité – Universitätsmedizin Berlin (CBF-CVK-CCM)

Researcher unique identifier(s): ORCID-ID: 0000-0002-2035-6528

Number of children: two children (\*02.01.2012 and \*22.09.2017), maternity leave 1/2012 – 02/2013 and 9/2017 – 02/2018

### 2 | Academic education

2008 – 2012 PhD in Molecular Medicine, section of Basic and Applied Immunology, Università Vita Salute San Raffaele, Milan, Italy  
2005 – 2007 Master in Medical Biotechnology, Università degli Studi di Milano-Bicocca, Milan-Monza, Italy  
2002 – 2004 Bachelor in Biotechnology, Università degli Studi di Milano-Bicocca, Milan, Italy

### 3 | Advanced academic qualifications:

2011 PhD thesis, Molecular Medicine, “*On the role of IL-1beta in T cell-mediated immunopathology*”, Università Vita Salute San Raffaele, Milan, Italy; Institute for Research in Biomedicine, Bellinzona, Switzerland (Mentor: Federica Sallusto)

### 4 | Postgraduate professional career:

Since 2021 W2 Professor of Microbiology and Microbiome Research, Department of Microbiology, Infectious Diseases and Immunology, Charité – Universitätsmedizin Berlin  
2018 – 2021 Senior Scientist, Department of BioMedical Research, University of Bern, Bern, Switzerland  
2013 – 2018 Postdoctoral Research fellow, Department of BioMedical Research, University of Bern, Bern, Switzerland  
2008 – 2012 PhD Graduate Student, Institute for Research in Biomedicine - Bellinzona, Switzerland

### 5 | Other:

#### Awards/Honors

- Italian Multiple Sclerosis Foundation Grant (2021 – 2024)
- Novartis Foundation for Medical-Biological Research Grant (2020)
- Biostime Institute for Nutrition and Care (BINC)-Geneva Grant (2019 – 2021)
- Award of the “PIs of tomorrow” competition, Life Science, Switzerland (2019)
- Supporting Science Grant, Roche; Novartis Cyber Grant; Scientific Exchange Grant, Swiss National Science Foundation (SNSF) (2019)
- Helmut Horten Foundation grant (2018 – 2019)
- Beer-Brawand Fonds, University of Bern, Switzerland (2018)
- European Crohn’s and Colitis Organisation (ECCO) grant (2016 – 2016)

- Kontaktgruppe für Forschungsfragen (KGF), Novartis and F. Hoffmann-La Roche (2016)
- Fund for the Promotion of Young Researchers, University of Bern, Switzerland (2015)
- Swiss National Science Foundation/Marie Heim-Vögtlin Postdoctoral Fellowship (2013 – 2015)

**Other professional activities:**

- Member of the Research Foundation-Flanders (FWO) Review College (2021 – 2023)
- Guest Associate Editor *Frontiers in Immunology* (2020)
- Reviewer of journals and grants [The Research Foundation-Flanders (FWO), French National Research Agency (ANR), Canada Foundation for Innovation (CFI), Dutch Multiple Sclerosis Research Foundation - since 2015]

**6 | Selected publications:**

1. Rutsch A, Kantsjö JB, **Ronchi F**. The Gut-Brain-Axis: How Microbiota and Host Inflammasome influence Brain Physiology and Pathology. **Front Immunol** 2020; 11, 3237
2. Gil-Cruz C, Perez-Shibayama C, De Martin A, **Ronchi F**, van der Borght K, Niederer R, Onder L, Lütge M, Novkovic M, Nindl V, Ramos G, Arnoldini M, Slack EMC, Boivin-Jahns V, Jahns R, Wyss M, Mooser C, Lambrecht BN, Maeder MT, Rickli H, Flatz L, Eriksson U, Geuking MB, McCoy KD, Ludewig B. Microbiota-derived peptide mimics drive lethal inflammatory cardiomyopathy. **Science** 2019; 366(6467):881-886
3. Uchimura Y, Fuhrer T, Li H, Lawson MA, Zimmermann M, Yilmaz B, Zindel J, **Ronchi F**, Sorribas M, Hapfelmeier S, Ganai-Vonarburg SC, Gomez de Agüero M, McCoy KD, Sauer U, Macpherson AJ. Antibodies Set Boundaries Limiting Microbial Metabolite Penetration and the Resultant Mammalian Host Response. **Immunity** 2018; pii:S1074-7613(18)30344-3
4. Hebbandi Nanjundappa R\*, **Ronchi F\***, Wang J, Clemente-Casares X, Yamanouchi J, Umeshappa C, Yang Y, Blanco J, Bassolas H, Salas A, Serra P, Slattery RM, Mooser C, Wyss M, Macpherson AJ, McKay DM, McCoy KD, Santamaria P. A gut microbial autoantigen mimic that hijacks diabetogenic autoreactivity to suppress colitis. **Cell** 2017; 171(3):655-667.e17
5. McCoy KD, Geuking MB, **Ronchi F**. Gut Microbiome Standardization in Control and Experimental Mice. **Curr Protoc Immunol** 2017; 117:23.1.1-23.1.13
6. Mamantopoulos M\*, **Ronchi F\***, Van Hauwermeiren F, Vieira-Silva S, Yilmaz B, Martens L, Saeys Y, Drexler SK, Yazdi AS, Raes J, Lamkanfi M, McCoy KD, Wullaert A. Nlrp6- and ASC-dependent inflammasomes do not shape the commensal gut microbiota composition. **Immunity** 2017; 47(2):339-348.e4
7. **Ronchi F\***, Basso C\*, Preite S, Reboldi A, Baumjohann D, Perlini L, Lanzavecchia A, Sallusto F. Experimental priming of encephalitogenic Th1/Th17 cells requires pertussis toxin-driven IL-1 $\beta$  production by myeloid cells. **Nat Commun** 2016; 7:11541
8. Preite S, Baumjohann D, Foglierini M, Basso C, **Ronchi F**, Fernandez Rodriguez BM, Corti D, Lanzavecchia A, Sallusto F. Somatic mutations and affinity maturation are impaired by excessive numbers of T follicular helper cells and restored by Treg cells or memory T cells. **Eur J Immunol** 2015; 45(11):3010-21
9. Balmer ML, Slack E, de Gottardi A, Lawson MA, Hapfelmeier S, Miele L, Grieco A, Van Vlierberghe H, Fahrner R, Patuto N, Bernsmeier C, **Ronchi F**, Wyss M, Stroka D, Dickgreber N, Heim MH, McCoy KD, Macpherson AJ. The liver may act as a firewall mediating mutualism between the host and its gut commensal microbiota. **Sci Transl Med** 2014; 6(237):237ra66
10. Baumjohann D, Preite S, Reboldi A, **Ronchi F**, Ansel KM, Lanzavecchia A, Sallusto F. Persistent antigen and germinal center B cells sustain T follicular helper cell responses and phenotype. **Immunity** 2013; 38(3):596-605

\*contributed equally