

## Romagnani, Chiara, Prof., MD, PhD (B06)

### Personal Data

Title	Prof., MD, PhD
First name	Chiara
Name	Romagnani
Current position	Professor (W3) „Immunology of Inflammation”, Charité – Universitätsmedizin Berlin and Chair of the Leibniz Campus “Chronic Inflammation”; permanent position
Current institution(s)/site(s), country	Division of Gastroenterology, Infectiology and Rheumatology, Charité – Universitätsmedizin Berlin and German Rheumatism Research Centre (DRFZ) in Berlin: A Leibniz Institute, Charitéplatz 1, 10117 Berlin, Germany
Identifiers/ORCID	Researcher ID: E-4708-2016, ORCID-ID: 0000-0002-5167-7463

### Qualifications and Career

Stages	Periods and Details
Degree programme: Medicine	2003 – 2006, Immunology, University of Genoa, Italy (PhD) 1991 – 1998, University of Florence, Italy (MD)
Doctorate: MD thesis	20.07.1998: Supervisor: Gianfranco Del Prete, “ <i>Helicobacter pylori and gastric MALToma: immunopathogenic mechanisms</i> ”, University of Florence, Italy
Doctorate: PhD thesis	2006: Supervisor: Lorenzo Moretta, “ <i>NK cell modulation and differentiation mediated by dendritic cells and cytokines</i> ”, University of Genova, Italy
Stages of academic/professional career	
Since 2020	W3 Professorship “ <i>Immunology of Inflammation</i> ”, Department of Gastroenterology, Infectious Diseases and Rheumatology, Charité – Universitätsmedizin Berlin and Chair of the Leibniz Campus “ <i>Chronic Inflammation</i> ”, Germany
2017 – 2020	W2 Heisenberg Professor for “ <i>Innate Mechanism of Chronic Inflammation</i> ”, Department of Gastroenterology, Infectious Diseases and Rheumatology, Charité - Universitätsmedizin Berlin, Germany
Since 2009	Group leader of research group “ <i>Innate Immunity</i> ”, DRFZ Berlin, Germany
2007 – 2009	Postdoctoral fellow, Institute of Immunology (Charité – Universitätsmedizin Berlin), Germany
2006 – 2007	EMBO fellowship, DRFZ Berlin, Germany
1998 – 2003	National Cancer Institute, Genoa, Italy, Medical specialty in Oncology

1993	Research fellowship Brigham & Women's Hospital and Department of Pathology, Harvard Medical School, Boston, MA (AK Abbas), USA
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### Engagement in the Research System

- Chair of the Executive Committee of the European Journal of Immunology (since 2022)
- Deputy Speaker of the Else Kröner Graduate School for Medical Students “Rethinking Health: Gesundheits- und Präventionsforschung” (since 2021)
- Speaker of the PhD program “Interdisciplinary Center of Infection Biology and Immunity” (ZIBI), Berlin (since 2020)
- Editorial Board Immunity (since 2020)
- Executive Committee of the European Journal of Immunology (since 2020)
- Committee for the DGfI-Robert-Koch Postdoctoral Prize and for the Avrion Mitchison Prize (since 2019)
- Board of the German Society of Immunology (DGfI) (since 2018)
- Chief Editor: Frontiers in Immunology - NK and ILC section (2017 – 2020)
- Referee for scientific journals, including Nature, Science, Nature Immunology; Nature Biotechnology, Nature Medicine, Cell, Immunity
- Referee for funding agencies including: Medical Research Council MRC (UK), Wellcome Trust (UK), German Research Foundation DFG (DE), ERC, Agence Nationale de la Recherche (FR), Fondation pour la Recherche Medicale (FR), Swiss cancer league (CH), Austrian Science Fund (AT), NWO-Netherlands Organisation for Scientific Research (NL)

### Scientific Results

**Category A**, \* contributed equally, # open access

1. Rückert T, Lareau CA, Mashreghi MF, Ludwig LS, **Romagnani C**. Clonal expansion and epigenetic inheritance of long-lasting NK cell memory. **Nat Immunol** 2022; 11:1551-1563. doi: 10.1038/s41590-022-01327-7. #
2. Jarick KJ, Topczewska PM, Jakob MO, Yano H, Arifuzzaman M, Gao X, Boulekou S, Stokic-Trtica V, Leclère PS, Preußner A, Rompe ZA, Stamm A, Tsou AM, Chu C, Heinrich FR, Guerra GM, Durek P, Ivanov A, Beule D, Helfrich S, Duerr CU, Kühl AA, Stehle C, **Romagnani C**, Mashreghi MF, Diefenbach A, Artis D, Klose CSN. Non-redundant functions of group 2 innate lymphoid cells. **Nature** 2022; 611(7937):794-800. doi: 10.1038/s41586-022-05395-5.
3. Travis MA, **Romagnani C**. How regulatory T cells are primed to aid tolerance of gut bacteria. **Nature** 2022; 610(7933):638-640. doi: 10.1038/d41586-022-03368-2.
4. Stehle C, Rückert T, Fiancette R, Gajdasik DW, Willis C, Ulbricht C, Durek P, Mashreghi M-F, Finke D, Hause AE, Withers DR, Chang H-D, Zimmermann J\*, **Romagnani C\***. T-bet and ROR $\alpha$  control lymph node formation by regulating embryonic innate lymphoid cell differentiation. **Nat Immunol** 2021; 22(10):1231-1244. doi: 10.1038/s41590-021-01029-6.
5. Hernández DC, Juelke K, Müller NC, Durek P, Ugursu B, Mashreghi M-F, Rückert T, **Romagnani C**. A comprehensive platform for the faithful generation of human innate lymphoid cell lineages from CD34+hematopoietic progenitors. **Immunity** 2021; 54(10):2417-2432.e5. doi: 10.1016/j.immuni.2021.07.019. #
6. Babic M, Dimitropoulos C, Hammer Q, Stehle C, Heinrich F, Sarsenbayeva A, Eisele A, Durek P, Mashreghi M-F, Lisnic B, Van Snick J, Löhning M, Fillatreau S, Withers DR,

- Gagliani N, Huber S, Flavell RA, Polic B, **Romagnani C**. NK cell receptor NKG2D enforces pro-inflammatory features and pathogenicity of Th1 and Th17 cells. **J Exp Med** 2020; 217(8):e20190133. doi: 10.1084/jem.20190133. #
7. Hammer Q, Rückert T, **Romagnani C**. Natural killer cell specificity for viral infections. **Nat Immunol** 2018; 19(8):800-808. doi: 10.1038/s41590-018-0163-6.
  8. Hammer Q, Rückert T, Borst EM, Dunst J, Haubner A, Durek P, Heinrich F, Gasparoni G, Babic M, Tomic A, Pietra G, Nienen M, Blau IW, Hofmann J, Na IK, Prinz I, Koenecke C, Hemmati P, Babel N, Arnold R, Walter J, Thurley K, Mashreghi MF, Messerle M, **Romagnani C**. Peptide-specific recognition of human cytomegalovirus strains controls adaptive natural killer cells. **Nat Immunol** 2018; 19(5):453-463. doi: 10.1038/s41590-018-0082-6.
  9. Montaldo E, Teixeira-Alves LG, Glatzer T, Hamann W, Babic M, Paclik D, Stölzel K, Gröne J, Lozza L, Juelke K, Matzmohr N, Loiacono F, Petronelli P, Huntington ND, Moretta L, Mingari MC, **Romagnani C**. Human ROR $\gamma$ <sup>+</sup> CD34<sup>+</sup> cells are lineage-specified progenitors of group ROR $\gamma$ <sup>+</sup> innate lymphoid cells. **Immunity** 2014; 18;41(6):988-1000. doi: 10.1016/j.immuni.2014.11.010. #
  10. Glatzer T, Killig M, Meisig J, Ommert I, Luetke-Eversloh M, Babic M, Paclik D, Blüthgen N, Seidl R, Seifarth C, Gröne J, Lenarz M, Stölzel K, Fugmann D, Porgador A, Hauser A, Karlas A, **Romagnani C**. ROR $\gamma$ <sup>+</sup> innate lymphoid cells acquire a proinflammatory program upon engagement of the activating receptor NKp44. **Immunity** 2013; 27;38(6):1223-35. doi: 10.1016/j.immuni.2013.05.013. #

### Patents

1. "Activation and expansion of NKG2C<sup>+</sup> NK cells": granted in U.S. (10,864,245) and Europe (EP3539553)
2. "Novel peptides capable of altering NK cell activity": provisional patent application M0656.70523US00
3. "Nucleic acid vaccine for activating NKG2C<sup>+</sup> natural killer cells", EP 23168473.9 (pending)

### Academic Distinctions

- ERC Advanced Grant 101055157 - MEM-CLONK Imprinting and clonality of human NK cell memory (2022)
- "Primo loco" W3-Full Professorship Technical Immunology at the Faculty III of the TU Berlin (2020)
- "Primo loco" W3-Professorship in Immunology at the Medical Faculty of the Eberhard Karls Universität Tübingen (2018)
- DFG-Heisenberg Professorship (2017)
- DFG-nominated member of AcademiaNet – "Expert Database for Outstanding Female Academics" (2016)
- EMBO fellowship (2006)

### Collaborators

No.	Collaboration partners	Location/Institution
1	Thomas Schüler	Magdeburg, Germany, University of Magdeburg
2	Leif Ludwig	Berlin, Germany, BIH/MDC

3	Boian Polic	Rijeka, Croatia, University of Rijeka
4	Caleb Laureau	Palo Alto, USA, Stanford University
5	Renato Zambello	Padova, Italy, University of Padova

**Fields of Research**

No.	Fields of research
1	204-05 Immunology
2	201-03 Basic Research in Biology and Medicine/ <b>Cell Biology</b>
3	<b>205-15 Medicine/Gastroenterology</b>