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CURRICULUM VITAE JONATHAN BOHLEN, PHD

PERSONAL STATEMENT

I am a molecular biologist and **Emmy Noether-funded**, independent research group leader at the Gene Center at the Ludwig-Maximilians-University of Munich (LMU), Germany, working at the interfaces of mRNA translation, human genetics and molecular immunology. During my PhD, I studied the molecular mechanisms of gene expression control at the translational level. As postdoctoral fellow, I studied the mechanism of genetic predisposition to immunological disease in humans. My goal is to unravel fundamental molecular biology through the discovery and study of human genetic defects, in particular those affecting the mRNA translation machinery.

RESEARCH EXPERIENCE

08.2024-present	Gene Center, LMU, Munich, **Germany** *Independent group leader* mRNA translation in human immunity
04.2021-07.2024	Institut Imagine, INSERM, Paris, **France** Human genetics of Infectious Disease, Prof. Dr. Jean-Laurent Casanova *Postdoc* Molecular Basis of Genetic Predisposition to Infectious Diseases
10.2017-03.2021	German Cancer Research Center (DKFZ), Heidelberg, **Germany** Signal Transduction in Cancer, Prof. Dr. Aurelio Teleman *PhD with distinction "Summa cum laude"* The Molecular Mechanism of Translation Reinitiation
01.2017-03.2017	Sir Dunn School of Pathology, Oxford, **United Kingdom** Centrioles, centrosomes and cilia, Prof. Dr. Jordan Raff *Erasmus internship* Centriole Duplication investigated with Spinning Disc Confocal Microscopy
05.2015-07.2015	Vesalius Research Center, Leuven, **Belgium** Cellular Metabolism and Metabolic Regulation, Prof. Sara-Maria Fendt *Erasmus internship* Metabolism of Breast Cancer Stem Cells

Research experience also includes a 6-month internship at DKFZ, a 6-month bachelor thesis at ZMBH, a 6-month master thesis at DKFZ and several other internships.

EDUCATION

10.2017-12.2020	DKFZ Heidelberg, Karls-Ruprecht Universität Heidelberg ***PhD*** (3 years, *with distinction "Summa cum laude"*)
09.2015- 09.2017	Karls-Ruprecht Universität Heidelberg ***Master of Science**, Molecular Biosciences*
09.2011–02.2015	Hochschule Mannheim ***Bachelor of Science**, Biotechnology (honor for best grade*)

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Selected Publications

01.2026 T Vatovec, AL Neehus, …, J Bustamante, SG Tangye[@,*] and **J Bohlen**[@,*]
Somatic deficiency of human CBL in leukocytes impairs B cell but not T cell development and function
Nature Immunology, DOI*: 10.1038/s41590-025-02381-7*

01.2026 Q Zhou[@], F Komma, …, J Bustamante[@] and **J Bohlen**[@]
Complete and partial forms of X-linked MCTS1 deficiency in patients with mycobacterial disease
Journal of human Immunity, in press, DOI: *10.70962/jhi.20250073*

08.2024 **J Bohlen**[@], I Bagaric[#], T Vatovec[#], M Ogishi[#], …, JL Casanova, J Bustamante[@]
Autoinflammation in patients with leukocytic CBL loss-of-heterozygosity is caused by constitutive ERK-mediated monocyte activation
JCI, DOI: *10.1172/JCI181604*

10.2023 **J Bohlen**[@], Q Zhang, Q Philippot, …, J Bustamante[@], Q Zhang, JL Casanova[@]
Human MCTS1-dependent translation of JAK2 is essential for IFN-γ immunity to mycobacteria
Cell, DOI: 10.1016/j.cell.2023.09.024

04.2023 **J Bohlen**[@,*], M Roiuk*, M Neff, AA Teleman[@]
PRRC2 proteins impact translation initiation by promoting leaky scanning
Nucleic Acids Research, DOI: 10.1093/nar/gkad135

12.2021 **J Bohlen**[@,*], M Roiuk*, AA Teleman[@]
Phosphorylation of ribosomal protein S6 differentially affects mRNA translation based on ORF length
Nucleic Acids Research, DOI: 10.1093/nar/gkab1157

06.2020 **J Bohlen**, L Harbrecht, S Blanco, KC von Hohenberg, K Fenzl, G Kramer, B Bukau, AA Teleman[@]
DENR promotes translation reinitiation via ribosome recycling to drive expression of oncogenes including ATF4
Nature Communications, DOI: 10.1038/s41467-020-18452-2

06.2020 **J Bohlen**, K Fenzl, G Kramer, B Bukau and AA Teleman[@]
Selective 40S footprinting reveals cap-tethered ribosome scanning in human cells
Molecular Cell, DOI: 10.1016/j.molcel.2020.06.005

[@]Corresponding Author, *Equal contribution

Honours and Awards

08.2025 **Emmy Noether Program,** DFG

08.2025 **Fritz Thyssen Stiftung,** Erstförderung

06.2025 **Else Kröner Fresenius Stiftung,** Erstförderung

03.2025 **Seed funding,** excellence initiative, LMU Munich

09.2024 **Pilot funding**, TRR 237, DFG

08.2024 **Junior-Group Leader package** at Genecenter, Munich

03.2024 Marie Skłodowska-Curie Actions (MSCA) **Postdoc Fellowship**
DOI: 10.3030/101065761

07.2021 EMBO **Postdoc Fellowship**

03.2021 DFG Walter Benjamin **Postdoc Stipendium**

11.2020	**RNA Society/Scaringe Graduate Student Award**
04.2017	**MSc/PhD Fellowship**, HBIGS Graduate School Heidelberg
07.2015	**Best graduating student** award in the 2015 class of Biotechnology

Selected invited Talks

05.2025	**Invited Speaker**, Department of Biochemistry, University of Bern, **Switzerland**, mRNA translation in human physiology
11.2024	**Invited Speaker**, 19th Symposium of IEI, Los Angeles, **USA** MCTS1-dependent translation of JAK2 is essential for IFN-γ immunity
11.2024	**Invited Speaker**, Japanese Biochemical Society Meeting 2024, Yokohama, **Japan** mRNA translation in human leukocytes and immunity
11.2024	**Invited Speaker**, RIKEN Institute, Yokohama, **Japan** mRNA translation in human leukocytes and immunity
10.2024	**Invited Speaker and Session Chair**, ESID 2024, Marseille, **France** MCTS1-dependent translation of JAK2 is essential for IFN-γ immunity
06.2024	**Invited Speaker**, German Cancer Research Center (**DKFZ**), Heidelberg Autoinflammation in patients with leukocytic CBL mutation and loss-of-heterozygosity is caused by constitutive ERK-mediated monocyte activation

Teaching and Outreach

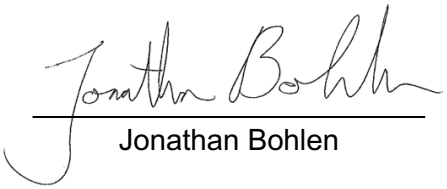
2025	Seminar “Inborn errors of immunity” in Master of Science Biochemistry, LMU
2025	Hochschultag: Tours and Q&A Sessions with High School students
2020	Supervised a “jugend forscht” project at Life-Science Lab, DKFZ, our group made fourth place at the national level.

Professional Society Memberships

Since 2019	RNA society
Since 2021	European Society of Immunodeficiency (ESID)

Ongoing Collaborations

Molecular Biology	Jinfan Wang (USA), Martin Bushell (UK), Jay Brito Querido (USA), Danny Huang (UK), Roland Beckmann (Germany)
Immunology	Vijay Sankaran (USA), Yanick Crow (UK), Nils Landegren (Sweden), Stuart Tangye (Australia), Nicloas Dulphy (France), Jean-Jacques Kiladijan (France), Marlene Pasquet (France)
Clinical	Riccardo Massetti (Italy), Alessandro Aiuti (Italy), Laia Alsina (Spain), Miriam Erlacher (Germany), Christoph Klein (Germany), Michele Proietti (Germany), Qinhua Zhang (China), Mohammed Shahrooei (Iran), Isabelle Meyts (Belgium)



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