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Not just a protein machine: how ribosomes regulate immune response

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List of Publications

Anastasia Gangaev*, Steven L. C. Ketelaars*, Olga I. Isaeva*, Sanne Patiwael, **Anna Dopler**, Kelly Hoefakker, Sara De Biasi, Lara Gibellini, Cristina Mussini, Giovanni Guaraldi, Massimo Girardis, Cami M. P. Talavera Ormeno, Paul J. M. Hekking, Neubury M. Lardy, Mireille Toebes, Robert Balderas, Ton N. Schumacher, Huib Ovaa, Andrea Cossarizza & Pia Kvistborg. Identification and characterization of a SARS-CoV-2 specific CD8⁺ T cell response with immunodominant features. *Nat Commun* 12, 2593 (2021). <https://doi.org/10.1038/s41467-021-22811-y>

Sofia Ramalho*, **Anna Dopler***, William James Faller. Ribosome specialization in cancer: a spotlight on ribosomal proteins, *NAR Cancer*, Volume 6, Issue 3, September 2024, <https://doi.org/10.1093/narcan/zcae029>

Anna Dopler, Ferhat Alkan, Yuval Malka, Rob van der Kammen, Kelly Hoefakker, Daniel Taranto, Naz Kocabay, Iris Mimpfen, Christel Ramirez, Elke Malzer, Olga I. Isaeva, Mandy Kerkhoff, Anastasia Gangaev, Joana Silva, Sofia Ramalho, Liesbeth Hoekman, Maarten Altelaar, Roderick Beijersbergen, Leila Akkari, Jonathan Wilson Yewdell, Pia Kvistborg, William James Faller. P-stalk ribosomes act as master regulators of cytokine-mediated processes. *Cell* 187, 1–13 (2024). <https://doi.org/10.1016/j.cell.2024.09.039>

Anna Dopler, Edwin Kyei-Baffour, Mandy Kerkhoff, Ferhat Alkan, Yuval Malka, Kelly Hoefakker, Rob van der Kammen, Liesbeth Hoekman, Onno Bleijerveld, Antonia Bradaric, Maarten Altelaar, Jonathan W. Yewdell, Pia Kvistborg, William J. Faller. Loss of ribosomal protein uL14 enables tumor escape from T cell immunosurveillance, *NAR Cancer*, Volume 7, Issue 3, September 2025, <https://doi.org/10.1093/narcan/zcaf024>

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Curriculum Vitae

Anna Dopler-Zandavalle was born on June 29 1994, in Vienna, Austria. She completed her high school education at the Sigmund-Freud-Gymnasium in Vienna in 2012 and started her Bachelor Degree in Biomedical Sciences in 2015 at the University of Applied Sciences Campus Vienna. As part of this program, she undertook internships in various laboratories in Vienna and went to The Peter Doherty Institute of Infection and Immunity, Department of Microbiology and Immunology, at the University of Melbourne, Australia. There, she studied Tissue-Resident Memory T cells (trm-cells) and their immunoprotective function in mouse in-vivo studies under the supervision of Dr. Katharina Hochheiser and Prof. Thomas Gebhardt. She completed her Bachelor thesis with honors at the Medical University of Vienna at the department of Laboratory Medicine studying the expression of TCbIR (CD320) in CD4⁺ T-lymphocytes depending on their activation and differentiation status under supervision of DDr. Klaus Schmetterer. In 2018, she continued with her Master Program Drug Discovery and Safety, specialization Target Finding, at the Vrije Universiteit Amsterdam, The Netherlands. During this program she completed multiple research internships. The first internship took place at Amsterdam UMC, Department of Medical Biology, The Netherlands and Linköping University, Department of Clinical and Experimental Medicine, Sweden, studying *M.tuberculosis* infected human macrophages and how the IncuCyte can be used as a tool to screen antibiotics. After that, she conducted her Master thesis at the Netherlands Cancer Institute (NKI), Department of Molecular Oncology & Immunology, under the supervision of Dr. Pia Kvistborg studying the immunoribosome as an active player in tumor immunosurveillance. In 2020, she started her PhD at the NKI in the Department of Molecular Oncology & Immunology under the supervision of Dr. Pia Kvistborg and completed her PhD in 2025 under the supervision of Dr. William James Faller at the Department of Oncogenomics at the NKI. During her PhD, she studied the role of ribosomes in cytokine-mediated processes and immune response to tumors. The results of her PhD are presented in this thesis.

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"Coming together is a beginning, staying together is progress, and working together is a success." (*Henry Ford*)

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