

Curriculum Vitae

Personal information **Martin Tobias Speth**

Work experience

February 2022 - present
Senior Adviser, Pharmaceutical Safety, Norwegian Medical Products Agency (NOMA), Norway

August 2017 - February 2022
Post-doctoral research fellow, Department of Biosciences, University of Oslo (UiO)

March 2012 - August 2017
PhD-student, Department of Biosciences, University of Oslo (UiO), Norway

July 2007 - December 2010
Research assistant, Department of Chemistry, Biotechnology and Food Science (NMBU), Ås, Norway

July 2005 - July 2006
Research technician, Cellular and genetic therapy research group, Department of Microbiology, Oslo University Hospital, Norway

Education and training

March 2012 - August 2017
PhD in cellular microbiology, Department of Biosciences, Universitetet i Oslo (UiO), Norway

October 1999 - October 2006
master's degree in Biology (Diplom Biologe), University of Tübingen, Germany and University of Oslo; Norway

Additional information

Publications

SigH stress response mediates killing of Mycobacterium tuberculosis by activating nitronaphthofuran prodrugs via induction of Mrx2 expression. Cioetto-Mazzabò L, Boldrin F, Beauvineau C, Speth M, Marina A, Namouchi A, Segafreddo G, Cimino M, Favre-Rochex S, Balasingham S, Trastoy B, Munier-Lehmann H, Griffiths G, Gicquel B, Guerin ME, Manganelli R, Alonso-Rodríguez N. *Nucleic Acids Res.* 2023 Jan 11;51(1):144-165. doi: 10.1093/nar/gkac1173.

The zebrafish embryo as an in vivo model for screening nanoparticle-formulated lipophilic anti-tuberculosis compounds. Knudsen Dal NJ, Speth M, Johann K, Barz M, Beauvineau C, Wohlmann J, Fenaroli F, Gicquel B, Griffiths G, Alonso-Rodríguez N. *Dis Model Mech.* 2022 Jan 1;15(1):dmm049147. doi: 10.1242/dmm.049147.

Real-time imaging of polymersome nanoparticles in zebrafish embryos engrafted with melanoma cancer cells: Localization, toxicity and treatment analysis. Kocere A, Resseguier J, Wohlmann J, Skjeldal FM, Khan S, Speth M, Dal NK, Ng MYW, Alonso-Rodríguez N, Scarpa E, Rizzello L, Battaglia G, Griffiths G, Fenaroli F. *EBioMedicine.* 2020 Aug;58:102902. doi: 10.1016/j.ebiom.2020.102902.

Both Type I and Type II Interferons Can Activate Antitumor M1 Macrophages When Combined With TLR Stimulation. Müller E, Speth M, Christopoulos PF, Lunde A, Avdagic A, Øynebråten I, Corthay A. *Front Immunol.* 2018 Nov 2;9:2520. doi: 10.3389/fimmu.2018.02520.

Translocation of nanoparticles and Mycobacterium marinum across the intestinal epithelium in zebrafish and the role of the mucosal immune system. Løvmo SD, Speth MT, Repnik U, Koppang EO, Griffiths GW, Hildahl JP. *Dev Comp Immunol.* 2017 Feb;67:508-518. doi: 10.1016/j.dci.2016.06.016.

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Poly(I:C)-Encapsulating Nanoparticles Enhance Innate Immune Responses to the Tuberculosis Vaccine Bacille Calmette-Guérin (BCG) via Synergistic Activation of Innate Immune Receptors. Speth MT, Repnik U, Müller E, Spanier J, Kalinke U, Corthay A, Griffiths G. *Mol Pharm.* 2017 Nov 6;14(11):4098-4112. doi: 10.1021/acs.molpharmaceut.7b00795.

Toll-Like Receptor Ligands and Interferon-γ Synergize for Induction of Antitumor M1 Macrophages. Müller E, Christopoulos PF, Halder S, Lunde A, Beraki K, Speth M, Øynebråten I, Corthay A. *Front Immunol.* 2017 Oct 26;8:1383. doi: 10.3389/fimmu.2017.01383.

L-leucyl-L-leucine methyl ester does not release cysteine cathepsins to the cytosol but inactivates them in transiently permeabilized lysosomes. Repnik U, Borg Distefano M, Speth MT, Ng MYW, Progida C, Hoflack B, Gruenberg J, Griffiths G. *J Cell Sci.* 2017 Sep 15;130(18):3124-3140. doi: 10.1242/jcs.204529.

Thioridazine in PLGA nanoparticles reduces toxicity and improves rifampicin therapy against mycobacterial infection in zebrafish. Vibe CB, Fenaroli F, Pires D, Wilson SR, Bogoeva V, Kalluru R, Speth M, Anes E, Griffiths G, Hildahl J. *Nanotoxicology.* 2016 Aug;10(6):680-8. doi: 10.3109/17435390.2015.1107146.

Protective effect of a recombinant VHSV-G vaccine using poly(I:C) loaded nanoparticles as an adjuvant in zebrafish (Danio rerio) infection model. Kavaliauskis A, Arnemo M, Speth M, Lagos L, Rishovd AL, Estepa A, Griffiths G, Gjøn T. *Dev Comp Immunol.* 2016 Aug;61:248-57. doi: 10.1016/j.dci.2016.04.010.

Zebrafish as a model system for characterization of nanoparticles against cancer. Evensen L, Johansen PL, Koster G, Zhu K, Herfindal L, Speth M, Fenaroli F, Hildahl J, Bagherifam S, Tulotta C, Prasmickaite L, Mælandsmo GM, Snaar-Jagalska E, Griffiths G. *Nanoscale*. 2016 Jan 14;8(2):862-77. doi: 10.1039/c5nr07289a.

Use of Poly(I:C) Stabilized with Chitosan As a Vaccine-Adjuvant Against Viral Hemorrhagic Septicemia Virus Infection in Zebrafish. Kavaliauskis A, Arnemo M, Kim SH, Ulanova L, Speth M, Novoa B, Dios S, Evensen Ø, Griffiths GW, Gjøen T. *Zebrafish*. 2015 Dec;12(6):421-31. doi: 10.1089/zeb.2015.1126.

Wnt-mediated down-regulation of Sp1 target genes by a transcriptional repressor Sp5. Fujimura N, Vacik T, Machon O, Vlcek C, Scalabrin S, Speth M, Diep D, Krauss S, Kozmik Z. *J Biol Chem*. 2007 Jan 12;282(2):1225-37. doi: 10.1074/jbc.M605851200.

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