Curriculum vitae - academic

Personal information

First name, Surname:	Marte Singsås Dragset		
Date of birth:	28th of November 1980	Sex:	Female
Nationality:	Norwegian		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):	ORCID: 0000-0003-1546-4329		
URL for personal website:	www.ntnu.edu/employees/marte.dragset		

Education

Year	Faculty/department – University/institution – Country
2013	Ph.D. degree (awarded on 19 December 2013) Department of Biotechnology – Norwegian University of Science and Technology (NTNU) – **Norway** (2 years at Harvard University – **USA)** (main supervisor: Svein Valla, co-supervisors: Magnus Steigedal, Trude Flo). *Title: "Riding the Ferrous Wheel: Identification and Study of Genes Involved in Mycobacterial iron Acquisition"*
2006	Master's degree (awarded on 25 June 2006) Department of Microbiology and Virology – University of Tromsø – Norway *Title: "A study of PKD1's Role in CREB-mediated Transcription Activation"*

Positions - current and previous* (PhD and after)

Year	Job title – Employer – Country
2019 -	Researcher – Centre of Excellence Centre for Molecular Inflammation Research (CEMIR) NTNU – **Norway** ***Grants**: NTNU (170K €), GSK (estimated 100K €), NTNU (40K €), NTNU (5K €)*
2017 - 2019 2021 - 2021	Visiting Researcher – Germans Trias i Pujol Research Institute (IGTP) – **Spain** ***Grants**: MSCA CO-FUND (350K €), ESCMID (20K €)*
2014 - 2015	Postdoctoral Fellow – Centre of Excellence CEMIR NTNU – **Norway**
2010 - 2012	Visiting PhD candidate – Harvard T.H. Chan School of Public Health – **USA** ***Grant**: NTNU (7K €)*
2008 - 2013	PhD candidate with 25% teaching duties – NTNU – **Norway**

*see further below for details on grants/fellowship

Career breaks

Year	Reason
2015 - 2017	Maternity leave (18 months from 06.12.2015)
2023 - 2024	Maternity leave (8.5 months from 24.07.2023)

Project management experience*

Year	Project owner – Project – Role – Funder
2022 - 2025	NTNU – "XXX, a Novel Virulence Target against Tuberculosis" – PI, Project Manager – GSK (through TCOLF)*
2020 - 2021	NTNU – "Identification of mycobacterial host pathway-specific virulence genes using Drosophila melanogaster" – PI, Project Manager – ESCMID
2017 - 2020	NTNU – "TargeTB: Identification of mycobacterial virulence factors during infection" – PI, Project Manager – MSCA COFUND

*see further below for details on grants/fellowship

Fellowships, grants and awards:

Year	Fellowship/award – Duration – Awarder
2021	ERC proposal preparation grant (**40K** €) – 4 months – NTNU *Internal review of proposal. Project title: "FLY-MY-NET, a Mycobacterial Innate Host-Pathogen Interaction Network"*
2021	Research grant (~**100K** €) – 15 months – GSK/TCOLF *I won this competitive grant from the Tres Cantos Open Lab Foundation (TCOLF) at GlaxoSmithKline (GSK) in Madrid, Spain, to hire a postdoc for 15 months to perform a drug screen against an Mtb virulence target I have discovered through my research (still unpublished). External/international review of proposal.* *Project title: "XXX, a Novel Virulence Target against Tuberculosis"*
2020	Researcher Fellowship (**170K** €) – 1.5 years – NTNU *I won this fellowship for my current position after an internal competition for an 18 months research position at Centre of Excellence CEMIR/NTNU. External/international review of proposal. Project title: "Assessing Mycobacterium tuberculosis Virulence Genes as Potential Drug Targets"*
2020	Seal of Excellence from Marie Skłodowska-Curie Action *I received the Seal of Excellence (SoE) for my proposal submitted to the MSCA Individual Fellowship programme for a high-quality project proposal in a highly competitive evaluation process that could not be funded. External/international proposal review. Project title: "XXX as a Multifunctional Target in TuBerculosis Drug Discovery"*
2020	Research Grant (**20K** €) – 1 year – *European Society* of Clinical *Microbiology* and Infectious Diseases (ESCMID) *I won this competitive European grant to study mycobacterial virulence in Drosophila melanogaster in collaboration with IGTP, Barcelona, Spain. External/international proposal review. Project title: "Identification of mycobacterial host pathway-specific virulence genes using Drosophila melanogaster"*
2019	Research Grant (**5K** €) – 1 year – NTNU (for consumables) *Internal review of proposal. Project title: "XXX as a target to treat Tuberculosis"*
2017	Researcher Fellowship (**350K** €) – 3 years – Marie Skłodowska-Curie Action's CO-FUND program with the Research Council of Norway (FRIPRO Mobility grant) (received in 2015, activated in 2017 after maternity leave) *I won this fellowship to cover two years of research at IGTP (Barcelona, Spain), and one year back at NTNU. During this fellowship I identified mycobacterial virulence factors by genome-wide phenotypic profiling (TnSeq) using the mouse and Drosophila animal models and in vitro (low iron) approaches. External/international proposal review. Project title:"TargeTB: Identification of Mycobacterial Virulence Factors During Infection"*
2012	Scholarship (**7K** €) – 1 year – NTNU *"Funding for Internationalization in Medical Technology" to cover research stay at Harvard University, USA. Internal review of proposal. Project title: Identifcation and Study of Genes Involved in Mycobacterial Iron Acquisition"*

Supervision of students

Master's students	Ph.D students	University/institution – Country
7	2	NTNU – Norway

Other relevant professional experiences

Year	Description - Role – Country
2022 - 2024	Director of Studies, The National Graduate School in Infection Biology and Antimicrobials (IBA). Responsible for IBA's activities in Trondheim, Norway.
2022	Main organizer - Course on Pathogen Immue Evasion Strategies – IBA - Norway
2020 -	Reviewer for Frontiers Microbiology, Journal of Medical Microbiology, and mBio
2020 -	Examinator of various master theses and master course on Infection, Inflammation and Immunity – NTNU and University of Tromsø - Norway

2009 - 2012	Teaching in microbiology and biochemistry – NTNU – Norway
2004 - 2006	Teaching in genetics, molecular- and cellbiology – University of Tromsø – Norway

Major academic collaborations (international)

Name	Topic	University/institution – Country
Eric J. Rubin	The Mtb virulence factors XXX	Harvard University - **USA**
Cristina Vilaplana	Mouse infection with Mtb mutant of XXX	IGTP - **Spain**
Pere J. Cardona	Drosophila-Mmar infection model	IGPT - **Spain**
Thomas Ioerger	TnSeq of mycobacterial virulence	TAMU – Texas - **USA**

Publications in international peer-reviewed journals or preprint servers:

Year	Title – Authors – Journal
2024	Novel and genome-wide phenotypic insight into mycobacterial virulence using *Drosophila melanogaster* as a host model Sivakumar N, Fuentes E, Selvik L-K, Arch M, Ås CG, Cardona PJ, Ioerger TR, **Dragset MS*** *sole corresponding author Under resubmission to PLOS PATHOGENS. BioRxiv preprint: https://doi.org/10.1101/2022.05.12.491628
2022	The *Streptococcus agalactiae* R3 surface protein is encoded by *sar5* Basson A, Olaisen C, Selvik LK, Lyng RV, Lysvand H, Gidon A, Ås CG, Afset JE, **Dragset MS*** *corresponding author PLOS ONE 17(7): e0263199 https://doi.org/10.1371/journal.pone.0263199
2019	Global Assessment of *Mycobacterium avium* subsp. *hominissuis* Genetic Requirement for Growth and Virulence. **Dragset MS***, Ioerger TR, Loevenich M, Haug M, Sivakumar N, Marstad A, Cardona PJ, Klinkenberg G, Rubin EJ, Steigedal M, Flo TH. mSystems (2019) Dec 10;4(6):e00402-19. doi: 10.1128/mSystems.00402-19. *sole corresponding author – **16** citations.
2019	Genome-wide Phenotypic Profiling Identifies and Categorizes Genes Required for Mycobacterial Low Iron Fitness. **Dragset MS***, Ioerger TR, Zhang YJ, Mærk M, Ginbot Z, Sacchettini JC, Flo TH, Rubin EJ, Steigedal M. Scientific Reports (2019) Aug 6;9(1):11394. doi: 10.1038/s41598-019-47905-y. *sole corresponding author. – **28** citations.
2015	A novel antimycobacterial compound acts as an intracellular iron chelator. **Dragset MS**, Poce G, Alfonso S, Padilla-Benavides T, Ioerger TR, Kaneko T, Sacchettini JC, Biava M, Parish T, Argüello JM, Steigedal M, Rubin EJ*. – **35** citations. Antimicrobial Agents Chemotherapy (2015) Apr;59(4):2256-64. doi: 10.1128/AAC.05114-14.
2015	Benzoic Acid-Inducible Gene Expression in Mycobacteria. **Dragset MS**, Barczak AK, Kannan N, Mærk M, Flo TH, Valla S, Rubin EJ, Steigedal M. PLoS One (2015) Sep 8;10(9):e0134544. doi: 10.1371/journal.pone.0134544
2014	Mycobacterial Esx-3 requires multiple components for iron acquisition. Siegrist MS, Steigedal M, Ahmad R, Mehra A, **Dragset MS**, Schuster BM, Phillips JA, Carr SA, Rubin EJ. mBio (2014) May 6;5(3):e01073-14. doi: 10.1128/mBio.01073-14.
2011	BKV agnoprotein interacts with α-soluble N-ethylmaleimide-sensitive fusion attachment protein, and negatively influences transport of VSVG-EGFP. Johannessen M, Walquist M, Gerits N, **Dragset MS**, Spang A, Moens U. PLoS One (2011) ;6(9):e24489. doi: 10.1371/journal.pone.0024489.

2008	Phosphorylation of human polyomavirus BK agnoprotein at Ser-11 is mediated by PKC and has an important regulative function. Johannessen M, Myhre MR, **Dragset MS**, Tummler C, Moens U. Virology (2008) Sep 15;379(1):97-109. doi: 10.1016/j.virol.2008.06.007.
2007	Protein kinase D induces transcription through direct phosphorylation of the cAMP-response element-binding protein. Johannessen M, Delghandi MP, Rykx A, **Dragset MS,** Vandenheede JR, Van Lint J, Moens U. J Biol Chem (2007) May 18;282(20):14777-87. doi: 10.1074/jbc.M610669200.

Manuscript in preparation:

Title – Authors
"XXX is required for *Mycobacterium tuberculosis* low iron growth and virulence, and affects resistance to antibiotics" Baranowski C, Soldevilla P, Vidal M, Marstad A, Strand TA, Selvik LK, Ullmann S, Wakabayashi S, Vilaplana C, Flo TH, Rubin EJ, **MS Dragset**[*] [*]sole corresponding author

Invited presentations:

Year	Title – What – Place – Country
2024	"Virulens hos mykobakterier" - Konferanse for tuberkulosekoordinatorer - Norway
2022	The role of XXX in mycobacterial low iron growth and virulence" - Boston TB meeting - USA
2021	«Novel mycobacterial virulence factors and their potential in TB treatment» - Glaxo Smith Klein R&D seminar – Spain
2020	"Mycobacterial virulence genes in *Drosophila melanogaster*» - The annual conference for the National Graduate School in Infection Biology and Antimicrobials – Norway
2020	«Disarm tuberculosis! Novel mycobacterial virulence genes» - PhD school: Infection biology – Tierärztliche Hochschule Hannover – Germany (canceled due to the SARS-CoV-2 pandemic)
2019	«Novel mycobacterial virulence genes» - Conference: Turning the Tide of Antimicrobial Resistance – Oslo – Norway
2018	"Screening for virulence genes using *Drosophila melanogaster*" – Conference: MycoSPAIN annual conference BilboTB – Bilbao – Spain
2017	"Screening for Mycobacterial Virulence Genes by Transposon Insertions Sequencing" – Conference: MycoSPAIN annual conference MycoZAR – Zaragosa – Spain