Curriculum Vitae for Samantha Joan Noel

Associate professor in the Gut and Host Health group | Department of Animal and Veterinary Science, Aarhus University | ORCID: 0000-0003-4529-9598 | Address: Blichers Alle 20, 8830, Tjele, Denmark

EDUCATION

2009-2013	Ph.D., Institute of Fundamental Sciences, Massey University, Palmerston North, New Zealand
2007-2008	Postgraduate Diploma in Science, Massey University, Palmerston North, New Zealand
1999	Certificate with distinction in Advanced Computer Users, UNIVERSAL COLLEGE OF LEARNING, Palmerston North, New Zealand
1998	Bachelor of Science in Physiological and Molecular Plant Biology, Massey University, Palmerston North, New Zealand

COURSES

2021	University Pedagogical Program diploma, Aarhus University, Denmark
2021	Project Management for Researchers Module A, Aalborg University, Denmark
2016	CSC diploma – Copenhagen School of Chemometrics, University of Copenhagen, Denmark
2016	WinISI Basic Calibration, FOSS Academy, Denmark
2014	Animal Experimentation category B (performers of procedures), Aarhus University, Denmark

EMPLOYMENT

2024 -	Associate professor, Department of Animal and Veterinary Science, Aarhus University, Denmark
2020-24	Researcher, Department of Animal Science – Health, Aarhus University, Denmark
2016-19	Post-doctoral fellowship, Department of animal science – Molecular Nutrition and Reproduction, Aarhus University, Denmark. This includes a period of maternity leave from Jan 2017 – Nov 2017.
2014-16	Post-doctoral fellowship, Department of animal science – Immunology and Microbiology, Aarhus University, Denmark
2009-2013	Ph.D. student, Institute of Fundamental Sciences, Massey University, Palmerston North, New Zealand
2006	Sabbatical, Gut Immunology group, Rowett Research Institute Aberdeen, Scotland
2001-07	Scientific Research Assistant, Rumen Microbiology group, AgResearch Grasslands Research Center, Palmerston North, New Zealand
2000-01	Quality control Laboratory Technician, Ingredient sciences Laboratory, The Coca-Cola Company, Apopka Florida, USA

SCIENTIFIC FOCUS AREAS

I specialize in anaerobic microbiology of the gut in ruminants and pigs including aspects of, microbial ecology, molecular biology, bioinformatics, chemometrics, gut health and animal nutrition. My focus area is on methane mitigation strategies in dairy cows. I manage the DNA lab at AU Foulum and am responsible for the NIR facility and developing new NIR prediction models.

SUPERVISION and TEACHING

Main supervisor for 2 master and 2 PhD stay abroad internships. Co-supervisor for 2 PhD and 3 master students

2018-25	Lecturer - Feedstuff Evaluation master course (Aarhus University)
2015-19	Lecturer - PiGutNet Summer School (Aarhus University) Gut Biology and Health course
2013	Teaching assistant (Massey University)
2013	Demonstrator for Biology of cells and plant biology courses (Massey University)
1997	Teaching assistant (Massey University)

RECENT PROJECTS

2024- 2026 LaserLarvae: infrared prediction model for detailed fat- and protein composition in live BSF larvae **Role** WP leader

2023 - 2026 FNIRS: prediction of energy utilization and nitrogen digestion on a large scale in pigs. SAF **Role:** WP leader

2023 - 2027 Rumen gateway: Global Research Alliance Flagship Project. **Role**: WP leader

2022-2023 Effect of addition of fat and 3-NOP on the rumen microbiome in lactating dairy cows. Funded by DSM. **Role:** Project leader

2022-2026 MethEnzwine: Reducing methane emissions and improving growth performance and health with a novel enzyme applied to swine. Innovation Fund Denmark. **Role:** WP leader

2022-2025 MAF-INCOME: Reduced methane production with optimized milk production: Utilization of the interaction between feed additives, the individual cow's genetics and rumen microbes. **Role:** WP leader

2021 -2024 No-Methane. Novel triple action feed additive to reduce enteric methane emission from cattle by blocking the enzymatic process, suppressing methanogens and draining the hydrogen substrate. Innovation Fund Denmark. **Role:** Executive committee member and WP leader

2021-2026 HoloRuminant: Understanding microbiomes of the ruminant holobiont. (Grant Agreement No 101000213) Horizon 2020 **Role:** participant

2021-2025 PIGWEB Infrastructure for experimental research on pigs for sustainable meat production. EU Horizon 2020. H2020-INFRAIA-2018-2020 (Integrating and opening research infrastructures of European interest). **Role:** Task leader

2020-2022 Feeding and phenotype of the climate-efficient dairy cow (FF-KO) (Grant number 33010-NIFA-19-714). To validate existing additives and, in collaboration with the industry, start the development of new safe additives, which in the long term can ensure a significant reduction in methane without compromising the animal's health and milk quality. **Role:** participant

2018-2020 Veterinærforlig III: Feeding strategy based on fermented grains and probiotics to improve intestinal health and reduce weaning diarrhoea in pigs. **Role:** participant

2016-2018. Feed-a-Gene: Adapting the feed, the animal and the feeding techniques to improve the efficiency and sustainability of monogastric livestock production systems. European Commission (Grant agreement no: 633531) under the EU Framework Program for Research and Innovation Horizon 2020. **Role:** Task leader

2013-2016. 'Reduction of methane emissions from dairy cows and concurrent improvement of feed efficiency obtained through host genetics and next generation sequencing of rumen microbiome (REMRUM). The Danish Strategic Research Council. Contract no. 12-132447. **Role:** participant

2013-2016 Feed Utilization in Nordic Cattle Mælkeafgiftsfonden. **Role**: participant

2009-2013. 'Accessing the uncultivated rumen microbiome'. New Zealand Ministry of Business, Innovation and Employment, MBIE (New Economy Research Fund (NERF) Contract no. C10X0803). **Role**: participant

PUBLICATIONS

ORCID: 0000-0003-4529-9598 | H-index according to Google Scholar: 19 (2334 citations) (accessed 27-01-2025) | Position of review editor for Frontiers in microbiology | Peer reviewed manuscripts and book chapters: 35