

# Takele Feyera Bulti CV

## Persona details

Surname: Bulti

First name: Takele Feyera Bulti

Indre Ringvej 5, 1th, 8800 Viborg, Denmark

Research Id: 0009-0002-5643-9576

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## Degrees/Education:

1. 10 October 2018, PhD in Animal Science, major in Sow Nutrition, Faculty of Science and Technology, Aarhus University (**AU**), Denmark.
2. 14 August 2014, Double MSc in Sustainable Animal Nutrition and Feeding, major in Sow Nutrition, Faculty of Science and Technology, AU, Denmark and University of Debrecen, Hungary.
3. 15 October 2010, MSc in Animal Nutrition, major in Ruminant Nutrition, College of Agriculture and Environmental Science, Haramaya University, Ethiopia.
4. 29 July 2004, BSc Animal Production and Rangeland Management July, College of Agriculture, Debub University, Ethiopia.

## Pedagogical Training:

1. 25 November 2024, Intensive course in PhD supervision, Aarhus University, Denmark.
2. 9 June 2023, Excellence in PhD supervision for Academic Staff, European Network on Teaching excellence.
3. 15 December 2022 – 15 June 2023, University Pedagogical Programme, Aarhus University, Denmark.
4. 21-25 November 2011, Student-Centered Teaching & Continuous Assessment, Ambo University, Ethiopia

## Language skills

Native language: Amharic and Afan Oromo

English: Advanced

Danish: Basic/moderate

## Current and previous employments:

- February 2023-present: Assistant professor, Department of Animal and Veterinary Sciences, AU-Viborg, Denmark.
- 2019-2022: Postdoc at Department of Animal Science, AU, Denmark.
- 2018: Research Assistance at Department of Animal Science, AU, Denmark.
- 2015- 2018: PhD employee at Department of Animal Science, AU, Denmark.
- 2010-2012: Lecturer, Department of Animal and Rangeland Science, Ambo University, Ethiopia.
- 2008-2009: Assistant lecturer, Department of Animal Science, Ambo University, Ethiopia.
- 2006-2007: Graduate assistant, Department of Animal Science, Ambo University, Ethiopia.
- 2004-2005: Junior researcher, Oromia Agricultural Research Institute, Ethiopia.

## Grant and project management:

1. **2024:** Upcycling fruits and vegetable wastes into usable animal feed alternatives, **Main applicant**, DANIDA FELLOWSHIP CENTRE (10.040.000 million DKK, decision to be made in April 2025).
2. **2024:** Less stillborn piglets with more calcium and vitamin D3 supplementation, **main applicant**. Svineafgiftsfonden (**2.58** million DKK, decision to be made in January 2025).
3. **2024:** Why do lateborn piglets have a higher mortality rate than earlyborn piglets, **main applicant**. Danmarks Frie Forskningsfond (**3.38** million DKK, decision to be made in December 2024).
4. **2024:** Farrowing Housing: Identifying and addressing challenges for the US swine industry, **co-applicant as international collaboration**. National Pork Board, US (not granted).
5. **2024:** A model for studying muscle metabolite extraction in awake free-moving pigs, **co-applicant and WP leader**. Aarhus University Research Foundation (**0.60** million DKK, decision to be made in September 2024).

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- 2023:** Aspergillus oryzae-derived postbiotic for boosting dietary fiber utilization in sows, **co-applicant and WP leader**. Joint Pigweb and Biozyme company project (**1.44** million DKK, granted).
- 2033:** Role of colostrum quality on intestinal development of the piglets, **main applicant**. Danmarks Frie Forskningsfond (**3.17** million DKK, not granted).
- 2022:** Scutellaria baicalensis for high producing Danish sows, **WP leader**. Joint Pigweb-CCPA company project. (**0.544** million DKK, granted).
- 2022:** GUDP: Palmitoleic acid from fish oil in milk replacer-the essential heat regulator for piglet survival, **co-applicant and WP leader**. Grønt Udviklings- og Demonstrationsprogram, GUDP (**7.43** million DKK, not granted).
- 2020:** Palmitoleic acid (C16:1n-7) – the key to increased piglet survival, **WP leader**. Aarhus University Research Foundation (**0.597** million DKK, **granted**).
- 2018:** Less stillborn piglets and reduced piglet mortality with short farrowing: **co-applicant and WP leader** (**7.14** million DKK, granted).

### Research output:

Author/co-author of 31 scientific publications (**10** as first author and **7** as last author) with high rate of citations between 20 and 115. There are 14 abstract presentations, 3 peer-reviewed conference papers, 9 posters, 8 popular Danish magazine articles.

Bibliometric including self-citations (August 2024): Citations: **537** (Researchgate), **762** (Google scholar), h-index-13 and i10-index- 16 (Google scholar)

### Research supervision and leadership experience:

#### **Post postdoc:**

- María José Carrión López (2024). **Topic:** Biomarkers in colostrum and milk of sows as indicator for health in transition and lactating sows.

#### **PhD students:**

- Jakavat Ruampatana (2023-2026). **Thesis title:** *Beta-glucan supplementation in late gestating and lactating sows: impact on pre-weaning piglet performance, biomolecular profiles of mammary gland secretion and fecal microbiota*, Department of Obstetrics, Gynaecology, and Reproduction, Faculty of Veterinary Science, Chulalongkorn University, Thailand.
- Jakob Christoffer Johannsen (2022-2025). **Thesis title:** Protein nutrition of gestating and transition sows. Department of Animal and Veterinary Sciences, Aarhus University, AU-Viborg (will be submitted in February 2025).
- Darya Vodolazska (2020-2023). **Thesis title:** Early interventions for enhancing the robustness and intestinal health of pigs before weaning. Department of Animal Science, Aarhus University, Denmark (defended)

#### **MSc students:**

- Signe Emil Nielsen (2020). The Influence of farrowing kinetics on piglet performance until weaning. **A 45 ECTS**
- Sigrid Jost Wisbech Skovmose (2019). Is it possible to improve the farrowing process and colostrum production in the sow by increasing the energy status using glucose infusion? **A 30 ECTS**

#### **Bachelor students:**

- Malene Hald (2022). Characterizing change in colostrum compositions in relation to farrowing duration and litter size, **15 ECTS** project.
- Katelyn Gaffield and Emiley Thomson (2018/2019; guest students from Illinois State University). Methodological approaches to estimate colostrum and milk production of sows, **15 ECTS** project.

### Responsibility:

- Co-coordinator of team group "*Cellular Agriculture*" at Dept. Animal and Veterinary Science, AU-Viborg
- Search and recruitment committee for academic staff at Dept. Animal and Veterinary Science, AU-Viborg.
- Public consultancy services

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### **Teaching (Please see my teaching portfolio for further detail):**

Teaching undergraduate (in Ethiopia and Denmark) and graduate (in Denmark) courses. Courses I taught include **at graduate level:** Quantitative Animal Nutrition and Physiology, Feed Evaluation, Nutrient Cycling and Environmental Management, and Animal Production, Health and Welfare, and **at undergraduate level:** Sustainable Livestock Production, Anatomy and Physiology, Applied Animal Nutrition and Feed Processing, Principle of Animal Nutrition, Clinical Animal Nutrition, and Forage Production and Management (BSc).

### **Academic award and honors:**

- 2019: Nominated as a recipient of AU Research Foundation Award
- 2019: Nominated as a recipient of Science and Technology Talent Award.
- 2018: Travel Grant Award at the 14<sup>th</sup> International Symposium on Digestive Physiology of Pig.
- 2014: VLIROUS ITP scholarship Award.
- 2012: EM-SANF Consortium scholarship Award.

### **National and international relation:**

Collaborate with institute in **national** (SEGES Innovation; Copenhagen University, Vestjyllands Andel, AB Neo A/S) and **international** (IRTA Institute of Agrifood Research and Technology, Spain; University of Guelph, Agriculture and AgriFood Canada; University of Minnesota, USA; The Pennsylvania University, USA; Kansas State University, USA; CCPA groups, France; Biozyme Incorporated, Germany/USA)

### **Invited international lecture (Conference/symposium):**

1. Chinese Swine Industry Symposium, October 16-18, 2024, at the Shongjiang New Century Grand Hotel in Shanghai, China. Topic: Low protein ration and amino acid supplements on milk yield, postponed to next year.
2. SEGES Temagruppe Ernæring; september 30, 2024, Horsens, Denmark. Topic: Transition feeding of sows
3. Berner Feed Seminar, 4 October 2023, at Scandic Hamburger Börs, Turku, Finland. Topic: Transition feeding strategy for hyperprolific modern sows
4. The 11<sup>th</sup> International Conference on Pig Reproduction, June 4-7, 2023, at NH Gent Belfort, Ghent, Belgium. Topic: Feeding the modern sow to sustain high productivity
5. DSM Monogastric Nutrition Conference on Transition Nutrition, 24-25 September 2019, at the Makeney Hall Hotel Derbyshire, UK. Topic: Transition feeding and piglet survival in modern hyper-prolific sows.
6. Schothorst Feed Research Symposium on Sow Nutrition, 19 September 2018, at Nijkerk, Netherlands. Topic: Energy and lysine requirements and balances of sows during transition and lactation

### **Invited Online Webinar:**

1. PENNSTATE-2023 Swine Health Short Course, 16 November 2023, The Pennsylvania State University, USA. Topic: Transition feeding and piglet survival.
2. Seoul National University: 13 February 2023, South Korea. Topic: Feeding modern sows to optimize performance.
3. ZINPRO Corporation: 7 December 2022. Eden Prairie, Minnesota, USA. Topic: Transition feeding and sow performance.
4. International Forum on Animal Science and Veterinary Medicine, 15 August 2022. Topic: Farrowing assistance and possible risk factor for uterine infection.
5. Triple A, A/S, 13 Maj 2020: Hornsyld, Denmark. Topic: Relevance of transition nutrition for piglet survival.

### **Other scientific contribution:**

Guest editor for "Agriculture", a journal with 3.3 IF

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*Ad hoc* reviewer of Journal of Animal Science, Transitional Animal Science, Journal of Animal Science and Biotechnology, Animal, Livestock Science, Scientific Reports, Animal Nutrition, Nutrients.

### **Research focus:**

Gestation/transition and lactation physiology, mammary gland and uterus metabolism, the interplay between nutrition and physiology. The specific focus of my research area include:

1. Impact fiber sources and levels on sows' reproductive performance, and piglet survival and growth
2. Impact of feeding level and frequency on farrowing dynamics, piglet survival and farrowing assistance
3. Impact of palmitoleic acid supplementation on energy metabolism, piglet growth and survival
4. Precision feeding, production performance, and nutrient excretion
5. Early intervention to enhance robustness and intestinal health of the suckling piglets.
6. Feed additives and nutrient utilization in sows.
7. Influence of birth order on level of asphyxia, colostrum intake, growth, and immunity of suckling piglets
8. Effect of postnatal nutrition on skeletal muscle development, myofiber maturation, and metabolic status of early weaned piglets
9. Modelling nutrient requirements of transition and lactating sows

### **References**

1. Stig Purup, Adjunct professor, Department of Animal and Veterinary sciences, Aarhus University, Denmark.  
[Stig.purup@anivet.au.dk](mailto:Stig.purup@anivet.au.dk)
2. Chantal Farmer, Research scientist/Swine lactation biology Agriculture and Agri-Food Canada/Government of Canada Sherbrooke Research and Development Centre, 2000 College Sherbrooke J1M 0C8, Canada  
[chantal.farmer@agr.gc.ca](mailto:chantal.farmer@agr.gc.ca)
3. Thomas S. Bruun, Chief consultant, SEGES Innovation P/S, Aarhus, Denmark, [ths@seges.dk](mailto:ths@seges.dk)