

Curriculum vitae for Anders Bjerring Strathe

Personalia

Date of Birth: 09-01-1979
Nationality: Danish
Work address: Department of Animal Science
University of California, Davis
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Academic degrees

1998 Mathematical student, Bjerringbro Gymnasium, Denmark
2002 BSc in Animal Science, The Royal Veterinary and Agricultural University
2003-2004 Post Graduate in Animal Science, University of California, Davis, USA
2006 MSc in Animal Science, The Royal Veterinary and Agricultural University
2009 PhD in Animal science, Faculty of Life Sciences, University of Copenhagen (LIFE)

Employment:

2009- Post doctoral scholar at UC Davis
2006 - 2009 Ph.D. Scholar in animal science (Title: "*Stochastic Modelling of feed intake, growth and body composition in Pigs*"), LIFE
2006 Data analyst - The Danish Pig Production Association, Denmark
2005 Volunteer - Co-authored the documentation report on the Danish Feed Evaluation System, The Danish Pig Production Association, Denmark.
1998-1999 Herdsman in the sow herd at Tregaard, Denmark

Invited Speaker (internationally):

2010 Bayesian analysis of energy balance data from lactating cows: Combining past and present information. The Meeting of the Animal Science Modelling Group, July 9, Denver, United States. (Oral presentation)
Effects of genetic improvements on efficiency of energy utilization in dairy cows.
2010 Joint Annual Meeting – ADSA – CSAS – ASAS, July 11-15, Denver, United States. (Oral presentation)
Analysis of energy balance data from lactating dairy cows. 3rd International Symposium on Energy and protein metabolism and nutrition, 6-10 September. Parma, Italy. (Oral presentation)

2009 Multi-criteria models for estimating nutrient requirements in young pigs. The Meeting of the Animal Science Modelling Group, July 11, Montreal, Canada. (Oral presentation)
Multivariate nonlinear mixed effect models for protein and lipid deposition in growing pigs. 2009 Joint Annual Meeting – ADSA – CSAS – ASAS, July 12-16, Montreal, Canada.
Modeling lifetime growth and feed efficiency in pigs. 2009 Joint Annual Meeting – ADSA – CSAS – ASAS, July 12-16, Montreal, Canada. (Oral presentation)

Population based growth curve analysis – a comparison between models based on ordinary or stochastic differential equations implemented in a nonlinear mixed effect framework. 7th Workshop Modelling Nutrient Digestion and Utilization in Farm Animals. 10-12 September, Paris, France. (Oral presentation)

2008 Simultaneous modelling of growth and net energy intake in pigs. The 2008 Meeting of the Animal Science Modelling Group, Indianapolis, USA, July 7. (Oral presentation)

2007 Nonlinear mixed effect modelling of growth in pigs. Nordic Baltic Biometric Conference 2007, Foulum, Danmark, 6. June 2007 - 8. June 2007. (Oral presentation)
Modelling energy partition in growing pigs. 2nd International Symposium on Energy and protein metabolism and nutrition. Vichy, France.

Teaching – BSc and MSc level:

2010 Lecturer in a modeling course (UC Davis):
Mathematical Modeling in Biological Systems (graduate level)

2006-2009 Teaching assistant in nutrition courses (LIFE):
Basic Nutrition for veterinarians (BSc, 5 ECTS),
Basic Animal Nutrition & Physiology (BSc, 7½ ECTS)
Theme Course Animal Science 1 (BSc, 15 ECTS)
Experimental Animal Nutrition and Physiology (MSc, 15 ECTS)

2005 Teaching assistant in biostatistic course (LIFE):
Statistical and experimental planning (BSc, 9 ECTS)

Language skills

Language	Speaking	Reading	Writing
Danish	Mother tongue	Mother tongue	Mother tongue
English	Fluent	Fluent	Fluent
German	Fair	Fair	Fair

List of publications

Peer reviewed papers in international journals

2010

1. **Strathe AB**; Dijkstra J; France J; Lopez S; Yan T; Kebreab E. (2010). A Bayesian Approach to Analyze Energy Balance Data from Lactating Dairy Cows. *Journal of Dairy Science*. (Submitted).
2. **Strathe AB**; Kebreab E. (2010). Estimating Methionine Requirements for Laying Hens Using Multivariate Nonlinear Mixed Effect Models. *Poultry Science*. (Submitted)
3. Kebreab E; **Strathe AB**; Yitbarek A; Nyachoti C.M; Dijkstra J; Lopez S; France J. (2010). Modelling efficiency of phosphorus utilization in growing pigs. *Journal of Animal Science*. (Submitted).
4. Kebreab E; **Strathe AB**; Fadel J; Moraes L; France J. (2010). Impact of dietary manipulation on nutrient flows and greenhouse gas emissions in cattle. *Revista Brasileira de Zootecnia*. (in press).
5. **Strathe AB**; Danfær A; Chwalibog A; Sørensen H; Kebreab E. (2010). A multivariate nonlinear mixed effect method for analyzing energy partition in growing pigs. *Journal of Animal Science*. 88, 2361-2372.
6. Jørgensen H; **Strathe AB**; Theil P; Knudsen KEB (2010). Validation of gastric emptying using non-invasive ¹³C breath test. *Livestock Science* 133 64-66.
7. Poulsen HD; Blaabjerg K; **Strathe AB**; Ader P; Feurstein D (2010). Evaluation of different microbial phytases on phosphorus digestibility in pigs fed a wheat and barley based diet. *Livestock Science* 134, 97-99.
8. **Strathe AB**; Danfær, A; Sørensen, H; Kebreab, E. (2010). A multilevel nonlinear mixed effects approach to model growth in pigs. *Journal of Animal Science*. 88, 638-649.
9. Porter T; Kebreab E; Darmani Kuhı H; Lopez S; **Strathe AB**; France J (2010). Flexible alternatives to the Gompertz equation for describing growth with age in turkey hens. *Poultry Science*, 89, 371-378.

2009

1. McEvoy FJ; Buelund L; **Strathe AB**; Willesen JL; Webster P; Hørlyck L; Svalastoga E (2009). Quantitative computed tomography evaluation of pulmonary disease. *Veterinary Radiology and Ultrasound* 50, 47-51.
2. **Strathe AB**; Sørensen H; Danfær A (2009). A new mathematical model for combining growth and energy intake in animals: The case of the growing pig. *Journal of Theoretical Biology*, 261, 165-175.

3. Fernández JA; **Strathe AB** (2009). Dietary tryptophan and threonine supply to 28 days old weaned piglets. *Animal Feed Science and Technology*, 154, 265-270.
4. Strathe AB (2009). Stochastic modeling of feed intake, growth and body composition in pigs. PhD thesis. Faculty of Life Sciences, University of Copenhagen. ISBN 978-87-7611-313-1

2008

1. **Strathe AB**; Danfær A; Chwalibog A (2008). A dynamic model of digestion and absorption in pigs. *Animal Feed Science and Technology* 143, 328-371
2. McEvoy FJ; Madsen MT; **Strathe AB**; Svalastoga E (2008). Hounsfield Unit dynamics of adipose tissue and non-adipose soft tissues in growing pigs. *Research in Veterinary Science* 84, 300–304.

2007

1. McEvoy FJ; **Strathe AB**; Madsen MT; Svalastoga E (2007). Changes in the relative thickness of individual subcutaneous adipose tissue layers in growing pigs. *Acta Veterinaria Scandinavica* 49, 32.

Book Chapters

1. Strathe AB; Danfaer A. (2011). Growth in pigs. Nutritional physiology of the pig. Web based book.
2. Kebreab E; **Strathe AB**; Dijkstra J; Mills JAN; Reynolds CK; Crompton LA; Yan T; France J. (2010). Energy and protein interactions and their effect on nitrogen excretion in dairy cows. EAAP publication. 127, 417-427.
3. **Strathe AB**; Danfaer A; Nielsen B; Klim S; Soerensen H. (2010). Population based growth curve analysis: a comparison between models based on ordinary or stochastic differential equations implemented in a nonlinear mixed effect framework. *Modelling Nutrient Digestion and Utilization in Farm Animals*. 22-30.
4. Kebreab E; **Strathe AB**; Nyachoti CM; Dijkstra J; Lopez S; (2010). Modelling the profile of growth in monogastric animals. *Modelling Nutrient Digestion and Utilization in Farm Animals*. 388-395.

Papers in national (Danish) journals

1. Tybirk P; **Strathe AB**; Vils E; Sloth NM; Boisen S (2006). Det danske fodervurderingssystem. Dokumentationsrapport for energi- og proteinvurderingssystem [The Danish feed evaluation system. Documentation for the energy and protein evaluation system]. Rapport No. 30. Dansk Svineproduktion. 76 pp.

Conference and seminars

1. **Strathe AB**; Jørgensen H; Fernández JA; Kebreab E; Danfær A. (2011). Energy partitioning in modern meat type pigs. ADSA Midwestern Branch - ASAS Midwestern Section Meeting. March 14-16 Des Moines, IA, United States.
2. Huang SSY; **Strathe AB**; Wang WF; Fadel JG; Deng DF; Boston RC Hung SSO. (2010). A Kinetic Analysis of Se Uptake, Distribution and Excretion in White Sturgeon. Bay-Delta Science Conference, September 27-29, Sacramento, CA, United States.
3. Huang SSY; **Strathe AB**; Wang WF; Fadel JG; Deng DF; Boston RC Hung SSO. (2010). A Uptake, Distribution and Excretion of Selenocompounds in Juvenile White Sturgeon. SETAC North America Annual Meeting, November 7-11, Portland, OR, United States.
4. Huang SSY; **Strathe AB**; Fadel JG; Lin P; Liu TY; Hung SSO. (2010). Kinetics of Graded Doses of methylmercury in juvenile white sturgeon (*Acipenser transmontanus*). SETAC North America Annual Meeting, November 7-11, Portland, OR, United States.
5. Cruz GD; **Strathe AB**; Fadel JG. (2010). Gaussian mixture models for estimating adipocyte cellularity. In. Proceedings of the 2010 Meeting of the Animal Science Modelling Group. Canadian Journal of Animal Science. (in press).
6. **Strathe AB**; Dijkstra J; France J; Kebreab E. (2010). Effects of genetic improvements on efficiency of energy utilization in dairy cows. 2010 Joint Annual Meeting – ADSA – CSAS – ASAS, July 11-15, Denver, United States.
7. **Strathe AB**; Dijkstra J; France J; Kebreab E. (2010). Bayesian analysis of energy balance data from lactating cows: Combining past and present information. In. Proceedings of the 2010 Meeting of the Animal Science Modelling Group. Canadian Journal of Animal Science. (in press).
8. **Strathe AB**; Dijkstra J; France J; Kebreab E. (2010). Analysis of energy balance data from lactating dairy cows. EAAP publication. 127, 545-547.
9. **Strathe AB**; Kebreab E. (2009). Multi-criteria models for estimating nutrient requirements in young pigs. In. Proceedings of the 2009 Meeting of the Animal Science Modelling Group. Canadian Journal of Animal Science. 536 – 537.
10. **Strathe AB**; Danfær A; Kebreab E. (2009). Modeling lifetime growth and feed efficiency in pigs. 2009 Joint Annual Meeting – ADSA – CSAS – ASAS, July 12-16, Montreal, Canada.
11. **Strathe AB**; Kebreab E. (2009). Multivariate nonlinear mixed effect models for protein and lipid deposition in growing pigs. 2009 Joint Annual Meeting – ADSA – CSAS – ASAS, July 12-16, Montreal, Canada.
12. **Strathe AB**; Nielsen B; Klim S; Danfær A; Sørensen H. (2009). Population based growth curve analysis – a comparison between models based on ordinary or stochastic differential equations implemented in a nonlinear mixed effect framework. 7th Workshop Modelling Nutrient Digestion and Utilization in Farm Animals. 10-12 September, Paris, France.
13. Kebreab E; **Strathe AB**; Yitbarek A; Nyachoti C.M; Dijkstra J; Lopez S; France J. (2009). Modelling efficiency of phosphorus utilization in growing pigs. 7th Workshop Modelling Nutrient Digestion and Utilization in Farm Animals. 10-12 September, Paris, France. (abstract).
14. **Strathe AB**, Danfær A, Chwalibog A, Sørensen H (2008). Simultaneous modelling of growth and net energy intake in pigs. In. Proceedings of the 2008 Meeting of the Animal Science Modelling Group. Canadian Journal of Animal Science. 726 – 727.
15. Nielsen MO, Kongsted AH, Tygesen MP, Jørgensen W, Quistorff B, Oliver MO, **Strathe AB**, Christensen VG (2009). Insulin and glucose homeostasis in adult sheep is impacted by late gestation undernutrition (LG-UN) and an unfavourable diet early in postnatal life. 3rd International congress on prediabetes and the metabolic syndrome, 1-4 April 2009, Nice, France

16. **Strathe AB**; Danfær A; Thorbek G; Chwalibog A (2007). Modelling energy partition in growing pigs. EAAP publication.124, 597-598.
17. **Strathe AB**, Danfær A, Sørensen H (2007). Nonlinear mixed effect modelling of pig growth. In: Proceedings of the Nordic Baltic Biometric Conference. 6-8 June 2007, Foulum, Danmark, pp. 26-27