

## RESEARCH REPORTS



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## **Dairy Centre Attracts Four New Researchers**

Development of research and teaching activities at UBC's Dairy Education and Research Centre has received a substantial boost with the recent arrival of four research scientists at the Agriculture and Agri-Food Canada (AAFC) Research Centre in Agassiz. These scientists are working collaboratively with UBC scientists and students, greatly enriching everyone's experience. The following is a brief introduction to each scientist. You are encouraged to contact them through the e-mail addresses listed.

## Anne Marie de Passillé

(depassilleam@agr.gc.ca), a native of Quebec, completed her PhD at McGill University. She spent a post-doctoral year at the Agricultural University of Wageningen in The Netherlands working on welfare problems of veal calves and then a further year as a visiting scientist at the University of Alberta. Until her relocation to BC she was a Research Scientist in cattle welfare with AAFC in Lennoxville, Quebec.

(left to right) Moussa Diarra, Jeff Rushen, Anne Marie de Passille and Douglas Veira.

Anne Marie has focussed her research program on welfare problems associated with dairy and veal calf rearing. In addition, she has carried out many research projects on the welfare of dairy cows. Most recently she has been working to understand the motivation underlying sucking behaviour of calves with a view to improving group housing of milk fed calves. Her research interests in adult cattle have involved studies of the effects of handling practices on cattle's fear of people, improved early detection of lameness and studies of the effect of cow housing on welfare. She and colleague, Dr Jeff Rushen, have extensive international collaborations in these areas with scientists at the Swedish University of Agricultural Sciences, INRA at Clermont-Ferrand. the University of Helsinki, the Danish Institute for Animal Science, and the Animal Welfare Centre at the University of Melbourne.

With her relocation to BC, Anne Marie is looking forward to increasing collaboration with members of UBC's Animal Welfare Program. She intends to

focus her research on developing improved on-farm methods of assessing animal welfare, with a particular interest in automated means of detecting illness in calves that will aid the adoption of group housing systems for calves.

Moussa Diarra (diarran@agr.gc.ca) came to Canada from the Republic of Mali where he had completed his MSc in medical bacteriology. At Laval University, he completed MSc and PhD degrees in genetics and bacterial pathogenesis, respectively. He then worked at the Faculty of Veterinary

Medicine in St-Hyacinthe, and at the Centre Hospipalier of Laval University (Quebec). His research focus is on-farm food safety and, until his relocation to BC, he was located at the AAFC Research Centre in Lennoxville, Quebec.

Moussa is particularly interested understanding bacterial pathogenesis and the interactions between pathogens with their host. He is interested in developing simple and rapid methods of prevention and control of cattle and poultry infectious disease, with a particular interest in the detection and treatment of mastitis. Presently, he is using molecular techniques to investigate the strategies of iron acquisition by pathogenic bacteria. Recently, he undertook a vast research program to find new antimicrobial formulations capable of controlling the expression of the antimicrobial resistance gene and adherence in poultry and bovine pathogens. He is a member of the Canadian Network on Mastitis Research and involved in a national study on the use of antimicrobial agents in farm animals.

Jeff Rushen (rushenj@agr.gc.ca) came to Canada from Australia where he had completed his PhD at the University of Queensland and a post-doctoral fellowship at the University of Melbourne. He spent 2 years as an NSERC Visiting Fellow at AAFC's Research Centre in Ottawa examining nursing and suckling behaviour and aggressive behaviour in pigs before moving to the Federal Research Centre in Agriculture in the Federal Republic of Germany as an Alexander von Humboldt Fellow studying stress and welfare of pigs. He moved to Canada permanently when he accepted a research position at the University of Alberta and since then has been a Research Scientist in the welfare of cattle with the AAFC Research Centre at Lennoxville, Quebec. He is currently leader of AAFC's national research project in farm animal welfare. He and colleague, Dr de Passille, are widely consulted on animal welfare matters at a national level (e.g. Canadian Council for Animal Care, Canadian Standards Association, the Canadian Expert Committee for Farm Animal Welfare and Behaviour, and the Natural Sciences Engineering Research Council of Canada).

Jeff's has focussed his research on the welfare problems of dairy cows, studying the effects of handling methods on cattle's fear of people, stall design, the surfaces on which cows walk and stand, welfare and behavioural problems associated with automated milking systems, and improved methods of detecting lameness in dairy cattle.

Relocation to BC will enable Jeff to further his collaboration with members of UBC's Animal Welfare Program. At the Dairy Centre he intends to focus his research on improving on-farm methods of assessing animal welfare, with a particular interest in automated means of detecting illness (including lameness) through changes in animal behaviour. He also intends to begin research in poultry welfare.

**Douglas Veira** (veirad@agr.gc.ca) grew up surrounded by cattle on a farm in Jamaica. After spending a year working on a farm in England, he came to Canada where he graduated with a degree in animal science from the University of Guelph. After four and a half years of farming in Jamaica, he completed a MSc at the University of Aberdeen and a PhD at the University of Guelph.

Dr. Veira joined AAFC in Ottawa, doing nutritional, physiological and production research with beef and dairy cattle. With the closing of the AAFC animal research in Ottawa, he was seconded to the University of Manitoba for 3 years.

Most recently Dr. Veira spent 6 years at AAFC's Range Research Unit, in Kamloops, as Site Manager and Research Scientist. He concentrated his research on the behaviour of beef cattle around riparian areas and the impact of water quality on cattle. While in Kamloops Doug started working with UBC students and faculty from the Dairy Education and Research Centre.

This collaboration has increased with his recent relocation to AAFC (Agassiz) where he is developing a new research program on lactating dairy cows, with an emphasis on nutritional and physiological factors affecting cattle health and welfare. He and his colleagues are also studying potential methods for early detection of cattle at risk of developing production and metabolic disease.