Faculty of Veterinary Science
Welcome and Introduction

PETER WILLIAMSON
Associate Dean Research
Degree Programs

UNDERGRADUATE
› BVetSci
› B. Animal and Vet Bioscience

POSTGRADUATE
› Veterinary Clinical Masters
› Masters Coursework
› Masters Research
› PhD
›CVE Continuing Ed short courses
Fields of research activity

› Animal health
› Veterinary Public Health & Food security
› Animal Production Systems
› Ecosystem health and sustainability
› Clinical practice
› Animal welfare
› Veterinary education

Facilities

› Two campuses; city and rural
› Over 700ha farm land for dairy and on-site research in Camden
› Dry land sheep and beef commercial farm for teaching and research
› Research dairy (x3)
› Laboratories for physiological, molecular and cellular research
› Clinical hospitals and units
Food Security International Program
Integrating food production, food safety & animal health
Strengthening food security through family poultry and crop integration in Eastern and Southern Africa

Associate Professor Robyn Alders, AO
Faculty of Veterinary Science

Australian African Universities Network
29 November 2012
Acknowledgements

Our work builds on work by and support from:

• **IRPC/Kyeema** Foundation
• **ACIAR & UQ** - Australian Centre for International Agricultural Research & University of Queensland
• **AIFSC** – Australian International Food Security Centre
• **AusAID** - Australian Agency for International Development
• **FAO** - Food & Agriculture Organization of the United Nations
• **TVLA & SACIDS**
• **UNZA & CVRI**
• Farmers, extension workers, veterinarians, researchers & NGOs
Why involve village poultry?

In mixed farming systems in Eastern and Southern Africa:

› very few households own cattle (~10-20%)

› some own small ruminants (~30-40%), but

› most own village poultry (70-80%)
Domesticated thousands of years ago
- chickens → 8,000 years
- pigeons → 4,500 years
- fighting cocks → 3,000 years

Still command premium price in urban markets

Lack of essential inputs in rural areas to support intensive poultry production

→ not in direct competition with commercial poultry
Village poultry production is efficient ...

› Low-input in terms of labour & capital
› Scavenge for feed → major saving
› Smart & agile → escape predators
› Go broody → replacement stock
› Healthcare → frequently traditional
› Very high benefit-cost ratio

Credit: FAO/Brum
Vital role in rural families …

› Village poultry provide:
  - petty cash
  - bioavailable protein & micronutrients
  - pest control (of both plant & animal pests)
  - manure for vegetable gardens
  - social credit – ceremonies & rituals, &
  - assets for women & children

Credit: Kyeema/Alders
Eggceptional value!

- One egg contains:
  - 315 kilojoules of energy
  - high quality protein – rich in essential amino acids
  - Vitamins including Vit. A, B12, K & choline
  - minerals
- Sterile inside (usually)
- Easy to store
- Easy & quick to cook

Credit: FAO/Alders
Mixed farming systems

- Village poultry are frequently a part of crop and livestock farming systems.
- Experience to date suggests that improved village poultry production (starting with the control of Newcastle disease) frequently yields optimal results with mixed farmers.
› What opportunities exist to strengthen the efficiency of family poultry and crop value chains in Eastern and Southern Africa?
And now to our proposed project

› **Funding agency:** Australian International Food Security Centre / Australian Centre for International Agricultural Research

› **Implementing contractor:** University of Sydney

› **Partners:** National and Regional Agricultural, Food Security and Nutrition Agencies; Kyeema Foundation; and Royal Veterinary College, London

Credit: Kyeema/Alders
Research questions

In support of increased poultry and crop value chain efficiency and household food security, our five year project is being designed to answer the following questions in Tanzania and Zambia:

› Can strategic linkages between family poultry and crop value chains improve the socio-economic and biological efficiency of both operations?
› Can family poultry health and production and trade be increased by linking production to supplementary feed from cropping activities?
› Can increased efficiency of family poultry production and trade contribute to ecologically sustainable agriculture, sanitary food and improved human food security, health and wellbeing?
Overarching methodologies

› Participatory
› Gender sensitive
› One Health / transdisciplinary
› Peer review
› Partnership

Credit: Kyeema/Bagnol
Livestock ownership, food security and human health and nutrition in the Millennium Villages

Livestock ownership (by species) - Expenditures on food items

Dietary diversity (overall) - Animal-source food consumption

Social determinants

Food availability/coping strategies

Child health outcomes (e.g. diarrhea) - Child (mal)nutrition

Siobhan Mor, Anke Wiethölter (Faculty of Veterinary Science); Joel Negin (School of Public Health)