

# **International Booroola Workshop**

## **First Announcement and Invitation**

### ***Helen Newton Turner Memorial International Workshop*** ***“Using the *FecB* (Booroola) gene in sheep breeding programs”***

**10-12 November 2008**

**Venue: National Chemical Laboratory, Pune, Maharashtra, India**

Workshop web site: <http://www.une.edu.au/ers/hnt-workshop.php>

### ***Organizers***

**Nimbkar Agricultural Research Institute (NARI)**  
**(Animal Husbandry Division), Phaltan**

**National Chemical Laboratory (NCL), Pune**

**University of New England (UNE), Australia**

### **Sponsors for international travel**

**Australian Centre for International Agricultural Research**

**Australian Academy of Technological Sciences and Engineering**

*(International Science Linkages - Science Academies Program,*

*part of the Australian Government Innovation Statement, *Backing Australia's Ability*)*

### **A small amount of funding granted by**

**Department of Biotechnology, Government of India**

Additional funding and sponsors sought in India

### **Objectives of the workshop:**

- To inform key Indian and international scientists and Indian government policy makers of the outcomes and achievements of two major international projects carried out at NARI in collaboration with NCL on improving the prolificacy of Deccani sheep using the *FecB* mutation.
- To review the current understanding of the *FecB* mutation in sheep and its expression
- To showcase examples of successful introgression of the *FecB* mutation into commercial sheep populations
- To discuss the uptake of research results and policy issues for wider introgression of *FecB* into Indian sheep populations to increase lamb production efficiency and profit

### **Main themes of the workshop:**

- Background, history and origin of the *FecB* mutation
- Mechanisms of action of the *FecB* mutation and physiology
- Case studies and economics of introgression of *FecB* into local breeds in India and other countries e.g. Australia, New Zealand, France, China, Indonesia, U.S.A. and Israel
- The way forward: Introgressing *FecB* into the wider Indian sheep population

## **Keynote Speakers and their topics**

### **I History and origin of the Booroola gene**

Origin, use and management of the FecB gene –

*Dr. George Davis, AgResearch, New Zealand*

The Garole sheep - history, management, production, current status – *Prof. S. Pan, West Bengal University of Animal and Fishery Sciences, Kolkata, India*

### **II Physiological aspects of the Booroola gene mechanism**

Fundamental mechanisms of FecB action – *Prof. Bruce Campbell, School of Human Development, QMC Nottingham, U.K.*

Genetic modulation of FecB expression (polymorphisms, effect of genetic background) – *Dr. Vidya Gupta, National Chemical Laboratory, Pune, India*

Environmental modulation of FecB expression – *Dr. Neal Fogarty, New South Wales Department of Primary Industries, Australia*

Effects of multiple ovulation rate and litter size on maternal and fetal physiology. Prenatal and post natal consequences – *Dr. Geoffrey Hinch, University of New England, Australia*

### **III Case studies on introgression of Booroola in local breeds**

Biological and economic consequences of introgression of the FecB gene into Deccani Sheep – *Dr. Chanda Nimbkar, Nimbkar Agricultural Research Institute, Phaltan, India*

Biological and economic consequences of introgression of the FecB into Merino sheep in Australia – *Prof. Stephen Walkden Brown, University of New England, Australia*

Biological and economic consequences of introgression into Malpura sheep in Rajasthan – *Dr. A.L. Arora, Central Sheep and Wool Research Institute, India*

Agricultural and sociological Consequences of introgression of the FecB gene into Awassi and Assaf breeds in Israel- *Dr. Elisha Gootwine, The Volcani Centre, Israel*

Biological and economic consequences of introgression of the FecB into Merino d'Arles sheep – *Prof. J. M. Elsen, INRA, France*

Biological and economic consequences of the FecB gene in Indonesian thin tailed sheep – *Dr. Ismeth Inounu, Research Institute for Animal Science, Bogor, Indonesia*

Biological and economic consequences of the FecB gene in Chinese breeds of sheep – *Ms. Guohua Hua, Huazhong Agricultural University, Wuhan, China*

Biological and economic consequences introgression of the FecB in the USA – *Dr. David Notter, Virginia Polytechnic Institute and State University, U.S.A.*

### **IV The way forward: Introgression of FecB in the wider population**

Genetic aspects of FecB gene introgression in breeding programs –

*Prof. J. van der Werf, University of New England, Australia*

The economics of improved litter size in meat sheep – *Dr. Andrew Swan, Animal Genetics and Breeding Unit, University of New England, Australia*

Socio-economic evaluation of introgression of FecB into Deccani Sheep – *Dr. Julian Prior, University of New England, Australia*

Translating research project results into the real world – *Dr. Douglas Gray, Australian Centre for International Agricultural Research, Australia*

Potential introgression pathways (and strategies for utilization) of the FecB into the Deccani in other States / other breeds of sheep in India - *Dr. Chanda Nimbkar, Nimbkar Agricultural Research Institute, Phaltan, Maharashtra, India*

### **V Panel discussion**

Process required to facilitate wider introgression of the FecB gene in India (Chair, ACIAR program manager)

Implications of recent developments on the application of the FecB gene in countries other than India

One page papers related to the themes of the workshop are invited.  
Deadline for submission: 30 June 2008  
Mode of presentation will depend on the quality of submitted one page papers.

**Limited travel grants available for students, scientists and other interested workers from India. Kindly register your interest.**

Registration fee: For registrations up to 30 May 2008  
: Rs.2000 (for Indians)  
: A\$300 (for foreigners)

Registration fee includes

- Entrance to the workshop sessions
- A copy of abstracts and full papers proceedings
- Transport to workshop venue from hotel and back
- Morning and afternoon tea and lunch on each day
- Trip to Phaltan on 11 Nov to see *FecB* carrier NARI Suwarna sheep at NARI and in shepherd flocks and rural Maharashtrian dinner on the way back
- Workshop banquet on the 10th Nov evening

Please consult the web site <http://www.une.edu.au/ers/hnt-workshop.php> for further information, registration, one page paper submission and sponsorship or

#### Contact

##### **Convener**

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Workshop web site will be ready by 25 April 2008 when you can register.