



# Success route of FMD- DISCONVAC

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Project acronym: FMD-DISCONVAC

Project full title: Development, enhancement and complementation  
of animal sparing,  
foot-and-mouth disease vaccine-based control strategies for free  
and endemic regions.

Grant agreement no.: 226556



**Indian Immunologicals Limited**  
**Hyderabad**  
**India**

**A wholly owned subsidiary of the  
National Dairy Development Board**

# Indian Immunologicals Limited

- Indian Immunologicals Limited was established in 1982 in collaboration with Wellcome Foundation Limited, UK for manufacture of Foot and mouth Disease vaccine (25 Million ( $25 \times 10^6$ ) quadrivalent doses).
- Ranked No 1 in veterinary biological company in India.

# Manufacturing capacity

- Present capacity : 200 Million doses of Trivalent vaccine.
- The largest FMD Vaccine plant in India.
- Rabies – 5 Million doses
- Canine vaccines – 1 Million doses
- Other vaccines – 25 Million doses
- Filling facility
  - Liquid vaccine – 200 Million doses
  - Freeze dried vaccines – 400000 vials / year

# Outline

- Indian Immunologicals Limited
  - Collaboration with IAH
    - FMD-DISCONVAC

A close-up photograph of several pink orchid flowers with intricate vein patterns on their petals, set against a dark, blurred background. The text is overlaid on the image in a bright yellow color.

# **Collaboration with IAH**

**World reference laboratory for Foot and  
Mouth disease**

# EU-FP7 – FMDV-DISCONVAC (2009-2012)

FMDV-DISCONVAC

Academia

CODA-VAR, Belgium  
IAH, UK  
CVI, Holland  
IZSLER, Italy  
FLI, Germany  
AFFSA, France  
IVI, Switzerland  
KVI, Israel  
LVRI, China

University

UGLA, Glasgo  
DTA, Denmark

Industry

IIL, India  
FUNPRECIT, Argentina  
MERIAL, France

➤ Co-investigator in EU-FP7 DISCONVAC project (2009-2012)

➤ Contributor to Work Package 3 and Work Package 6



# Work packages

WP No	WP Title
WP1	Project management
WP2	Reduction and refinement of <i>in vivo</i> vaccine quality tests by <i>in vitro</i> methods
<b>WP3</b>	<b>Assessment and improvement of heterologous protection by FMD vaccines</b>
WP4	Development of vaccines and alternatives (antivirals) with rapid onset of immunity and based on safer production methods
WP5	Improvement in FMD diagnostics
WP6	<b>Improving knowledge on FMDV transmission between species and in recently vaccinated animals</b>
WP7	Development or adaptation of computerized FMD spread models to optimize vaccination schemes

## FMD-DISCONVAC: list of project meetings, workshop, tele- and videoconferences between the partners

Project meeting	Type	Date	Venue
Demonstration of IFN- $\gamma$ test and evaluation of animal experiment	Meeting, partners 2 and 6	March 18, 2009	IIL, Hyderabad, India
Kick-off meeting	Meeting, all partners	2-4 June 2009	Hotel Monasterium PoortAckere, Ghent, Belgium
Evaluation of Animal experiment	Meeting Partner 2 and 6	July 11th and 12th, 2009	IIL, Hyderabad India
Evaluation of animal experiment	Teleconference, partners 2 and 6	September 30, 2009	Teleconference
Evaluation of Animal experiment	Meeting Partner 2 and 6	November, 11th and 12th, 2009	IIL, Hyderabad India
Scientific Meeting	Meeting, all partners	8-10 December 2009	CODA-VAR, Tervuren, Belgium
Evaluation of animal experiment	Teleconference, partners 2 and 6	March 30, 2010	Teleconference
Management and scientific meeting	Meeting, all partners	28 September – 1 October 2010	Veterinärmed. Universität, Vienna, Austria
Cross protection workshop	Meeting, all partners	14-16 June 2011	INTA, Chile 460, Buenos Aires, Argentina

# Training

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<b>Name</b>	<b>From</b>	<b>To</b>	<b>Institute</b>
Dr S Yuvaraj	March 2010	May 2010	Institute for Animal Health, Pirbright, United kingdom

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# Status

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<b>W P No</b>	<b>WP Title</b>	<b>Status</b>
<b>W P3</b>	Assessment and improvement of heterologous protection by FMD vaccines	Completed
<b>W P6</b>	Improving knowledge on FMDV transmission between species and in recently vaccinated animals	Animal experiment has been completed. Analyses of samples are in progress. The final report will be available in December 2011

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# Publications

Vaccine 29 (2011) 1906–1912



ELSEVIER

Contents lists available at ScienceDirect

Vaccine

journal homepage: [www.elsevier.com/locate/vaccine](http://www.elsevier.com/locate/vaccine)



Evaluation of cross-protection between O<sub>1</sub> Manisa and O<sub>1</sub> Campos in cattle vaccinated with foot-and-mouth disease virus vaccine incorporating different payloads of inactivated O<sub>1</sub> Manisa antigen

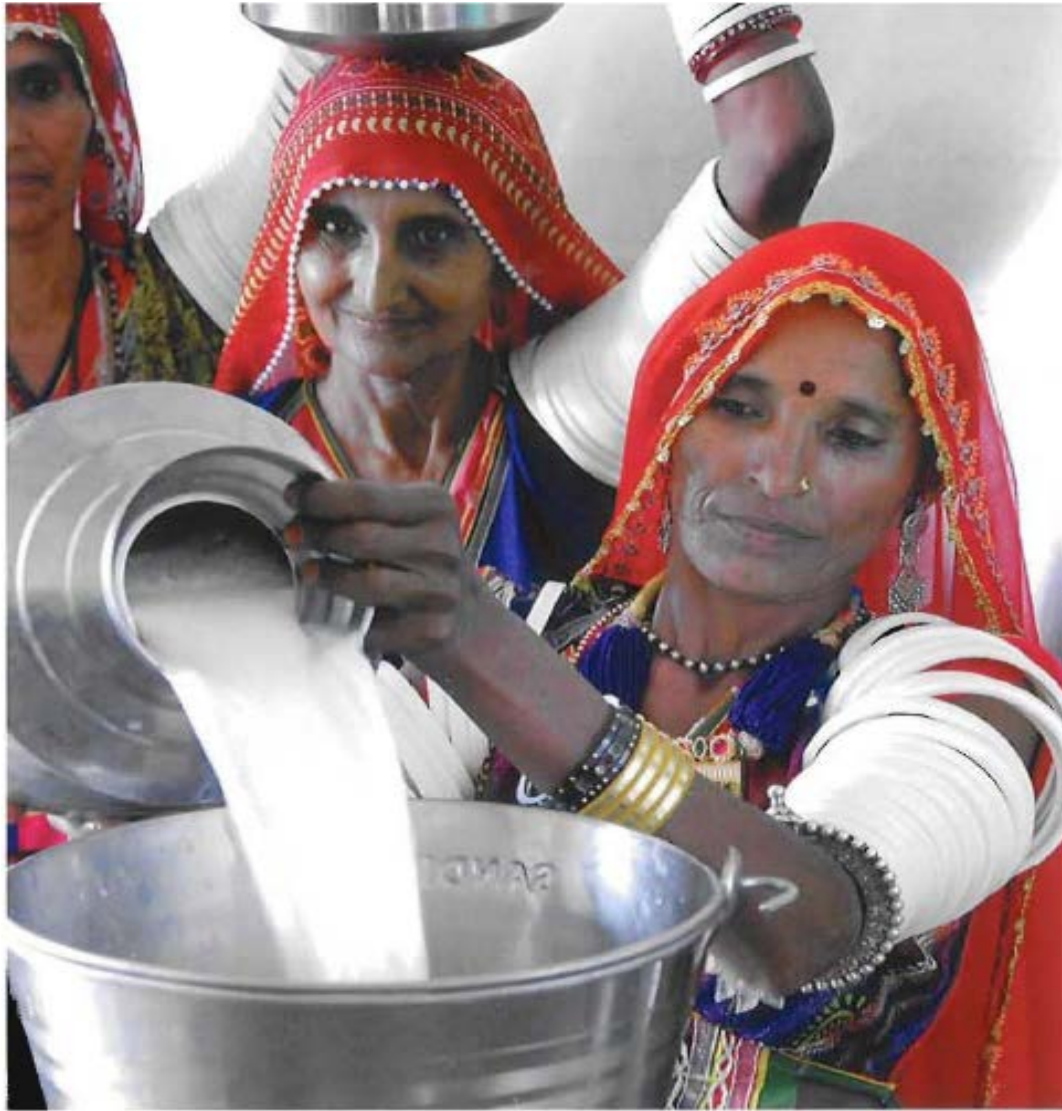
Singanallur Balasubramanian Nagendrakumar<sup>a</sup>, Villuppanoor Alwar Srinivasan<sup>a,\*</sup>,  
Muthukrishnan Madhanmohan<sup>a</sup>, Shanmugam Yuvaraj<sup>a</sup>, Satya Parida<sup>b</sup>,  
Antonello Di Nardo<sup>b</sup>, Jacquelyn Horsington<sup>b</sup>, David James Paton<sup>b</sup>

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# Summary

- IIL is the largest FMD vaccine manufacture in India
- Active collaboration with IAH, Pirbright
- FMD- DISCONVAC
- The findings will help India and Europe to control and prevent foot and mouth disease



**Thanks for your attention**