Brucellosis 2014 International Research Conference BERLIN | 9-12 September 2014



Pre-Meetings

8–9 September Workshop of the EU Brucellosis National Reference Laboratories

9 September Meeting of the Subcommittee on the Taxonomy of *Brucella*

9 September Brucellosis Gap Analysis and Priorisation Workshop (STAR-IDAZ)

Final Schedule

■ Tuesday, 9 September

05:00 p.m. – 08:00 p.m. Welcome Reception, ELLINGTON Hotel Berlin

■ Wednesday, 10 September

08:00 a.m. – 03:00 p.m. Registration

09:00 a.m. – 10:15 a.m. Opening Ceremony

Andreas Hensel

Federal Institute for Risk Assessment, Berlin, Germany

Karin Schwabenbauer

Federal Ministry of Food and Agriculture, Berlin, Germany

FAO works to curb the burden of brucellosis in endemic countries

Ahmed El Idrissi

Global research on Brucella species 1950-2013

Mahmoud Abo-Shehada

10:15 a.m. – 11:00 a.m. Coffee Break

11:00 a.m. – 12:15 a.m. Session 1: Taxonomy, Evolution, Emerging Species

Chair: David O'Callaghan

Keynote Lecture: Erko Stackebrandt

Leibniz Institute DSMZ, Braunschweig, Germany

Full taxonomic description of the proposed eleventh *Brucella* species,

Brucella papionis sp. nov., isolated from baboons

Adrian M. Whatmore

Round-Table

12:15 a.m. – 02:00 p.m. Lunch Break/Poster Session (Session 1-3)

02:00 p.m – 03:30 p.m. Session 2: Genomics, Proteomics and Metabolomics

Chair: Jean-Jaques Letesson

Keynote Lecture: Stephan Köhler

Centre d'études d'agents Pathogènes et Biotechnologie pour la Santé, Montpellier, France

A robust WGS pipeline for identifying and genotyping Brucella species

Christine R. Quance

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Whole genome comparative study on *Brucella suis* biovar 2 Ricardo Dias

Revisiting the erythritol catabolic pathway 40 years later Thibault Barbier

sRNAs and Hfq regulation in Brucella abortus

Félix J. Sangari

Role of the transcriptional regulator RegA in establishment of Brucella

suis persistence in an original in vitro model

Veronique Jubier-Maurin

03:30 p.m. – 04:30 p.m. Coffee Break/Poster Session (Session 4-6)

04:30 p.m. – 08:30 p.m. Sightseeing Tour

■ Thursday, 11 September

08:30 a.m. – 09:45 a.m. Session 3: Host-Pathogen-Interaction

Chair: Renato de Lima Santos

Kevnote Lecture: Sean Crosson

University of Chicago, Department of Biochemistry and Molecular Biology, Chicago (IL), USA

Marine mammal brucellae are attenuated in a mouse model of infection

Ingebjørg H. Nymo

Defining the role of a LysR-type transcriptional regulator in the survival and pathogenesis of *Brucella abortus* 2308

Lauren M. Sheehan

Cell cycle progression of *Brucella abortus* in culture and inside HeLa

cells and RAW264.7 macrophages

Xavier de Bolle

Transcriptional profile of bovine chorioallantoic membrane explants in response to wild type, $\Delta virB2$ or $\Delta btpB$ Brucella abortus infection

Renato de Lima Santos

09:45 a.m. - 10:30 a.m. Coffee Break

10:30 a.m. – 12:00 a.m. **Session 4: Immunology**

Chair: Thomas A. Ficht

Keynote Lecture: Stefan H.E. Kaufmann

Max Planck Institute for Infection Biology, Berlin, Germany

T cell responses to *Brucella* in humanized mice Beata Clapp

CXCR2 is a critical mediator of *Brucella*-induced articular inflammation **Jerod A. Skyberg**

Bovine γδ T cells' unique WC1 pattern recognition receptor (PRR) directs cellular immune responses to bacterial pathogens Cynthia L. Baldwin

A *Brucella* spp. protease inhibitor is a useful adjuvant in oral vaccine formulations against infectious diseases

Juliana Cassataro

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Protective immunity in intranasally infected mice with Brucella

melitensis

Delphine Hanot Mambres

12:00 a.m. – 01:45 p.m. Lunch Break/Poster Session (Session 7-9)

01:45 p.m – 03:30 p.m. **Session 5: Vaccination**

Chair: David W. Pascual

Keynote Lecture: Steven C. Olsen

National Animal Disease Center, United States Department of Agriculture, Ames (IA), USA

Cloning, expression and immune response against protective antigens of *M. bovis* in *B. abortus* vaccine strain RB51

Nammalwar Sriranganathan

Vaccination with recombinant *Brucella abortus* RB51 strain engineered to express increased levels of O-polysaccharide provides enhanced protection in murine brucellosis model

Ramesh Vemulapalli

The road towards the development of a safe and efficacious live attenuated vaccine for animal and human brucellosis: from the bench to the non-human primate model

Angela Arenas-Gamboa

Preliminary evaluation of a recombinant immunocontraceptive brucellosis vaccine for swine

Nammalwar Sriranganathan

Safety and protectiveness of a novel vector vaccine against Brucella

abortus in first-calf heifers

Kaissar Tabynov

Testing of immunogenic characteristics of the vaccine

B. abortus strain S19 in application of reduced doses on small

ruminants

Khabibulo Khamdamov

03:30 p.m. – 04:15 p.m. Coffee Break

04:15 p.m. – 05:30 p.m. **Session 6: Diagnostics**

Chair: Adrian M. Whatmore

Keynote Lecture: Ana M. Nicola

National Health Service and Agri-Food Quality (SENASA), Buenos Aires, Argentina

Oligosaccharide conjugates identify A and M epitopes and are superior ELISA antigens for presumptive diagnosis of brucellosis David R. Bundle

Application of synthetic oligosaccharide conjugates based on the structure of the native *Brucella* OPS to the serodiagnosis of bovine

brucellosis
John McGiven

Estimation of individual seroprevalence of brucellosis in large

ruminants from bulk milk tank results

Wendy Beauvais

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Use of Bionumerics and MALDI-TOF-MS data for the identification of Brucella species

Brea D. Duval

08:00 p.m. - 01:00 a.m. Soirée, Wasserwerk Berlin

Friday, 12 September

08:30 a.m. - 10:00 a.m. **Session 7: Human Brucellosis**

Chair: Rebekah Tiller

Keynote Lecture: Assimoula Economopoulou European Centre for Disease Prevention and Control (ECDC), Stockholm, Sweden

Human Brucella canis infection by contact with an asymptomatic infected dog Jorge C. Wallach

Linked human and livestock study on seroprevalence and risk factors for brucellosis in Kenya, 2012

Austine Bitek

Risk factors for human brucellosis in Kween District, Eastern Uganda:

a case control study, 2011

Atuheire Emily

Epidemiological status of brucellosis in the Russian Federation

Yury K. Kulakov

10:00 a.m. - 10:45 a.m. Coffee Break

10:45 a.m. - 12:30 a.m. Session 8: Lifestock Brucellosis and Food Hygiene

Chair: Falk Melzer

Keynote Lecture: Jakob Zinsstag-Klopfenstein

Swiss Tropical and Public Health Institute (TPH), Basel, Switzerland

Seroprevalence survey of animal brucellosis in Afghanistan **Abul Hussain**

Descriptive epidemiology of bovine brucellosis in Gauteng Province, South Africa, 2009-2013

Krpasha Govindasamy

A nationwide cross-sectional study of ruminant brucellosis in Jordan Imadidden I. Musallam

The identification of Brucella strains isolated during mass vaccination campaign with B. melitensis Rev1 and B. abortus S19 vaccines in Turkey

Sevil Erdenlig

Temporal analysis and costs of ruminant brucellosis eradication program in Egypt between 1999 and 2011

Mahmoud El Tholth

Investigating strategies to reduce the risk of brucellosis: opinions of Albanian sheep farmers

Mieghan Bruce





12:30 a.m. - 02:00 p.m. Lunch Break/Business Meeting

02:00 p.m - 03:30 p.m. **Session 9: Wildlife Brucellosis**

Chair: Philip H. Elzer

Keynote Lecture: Jacques Godfroid

University of Tromsø, Department of Arctic and Marine Biology, Tromsø, Norway

Brucella melitensis at the wildlife-livestock-human interface

in the UAE Anne-Lise Chaber

Brucella infection cases among stranded marine mammals recovered from the North Sea coasts of Belgium, Netherlands and France

(1999-2013) **David Fretin**

Characterization of Brucella species from stranded cetaceans in the

United States: 2010 to present

Rebekah Tiller

First isolations of Brucella ceti from long-finned pilot whales

(Globicephela melas) and a Sowerby's beaked whale (Mesoploden

bidens)

Geoffrey Foster

Atlantic cod (Gadus morhua): a potential transmission host for Brucella pinnipedialis hooded seal (Cystophora cristata) strain?

Annett K. Larsen

03:30 p.m. – 04:00 p.m. Poster Award/Closing Remarks and Farewell