

International Congress on Rickettsiae and other Intracellular Bacteria



Monday, June 19th, 2017

08.35-08.50 Welcome address

08.50-10.20 Session 1: Rickettsia epidemiology

Moderators: Philippe Parola & Loyd Vaughan

- 08.50-09.15 The evolving mosaic of tick-borne rickettsioses in North America
Christopher D. Paddock (Atlanta, GA, USA)
- 09.15-09.40 Use of MALDI-TOF MS to identify arthropod vectors of rickettsioses and to detect the microorganisms they carry
Philippe Parola (Marseille, France)
- 09.40-09.50 First detection of *Rickettsia monacensis* in Denmark
Silke Wölfel (Munich, Germany)
- 09.50-10.00 *Rickettsia parkeri* in *Amblyomma maculatum* (Acari : Ixodidae) collected from multiple locations in southern Arizona
Michelle E.J. Allerdice (Atlanta, GA, USA)
- 10.00-10.10 *Rickettsia* species in ectoparasites collected from small rodents in Lithuania
Dalyte Mardosaite-Busaitiene (Kaunas, Lithuania)
- 10.10-10.20 Diversity of *Rickettsia* in ticks collected in Central Italy 2014-2016
Ilaria Pascucci (Teramo, Italy)

10.20-10.55 Coffee break and poster session 1

10.55-12.40 Session 2 : Updates in the Chlamydiaceae field

Moderators: Johannes Hegemann & Christopher D. Paddock

- 10.55-11.20 New insights in the biology of Chlamydia-related bacteria
Gilbert Greub (Lausanne, Switzerland)
- 11.20-11.45 Division of Chlamydia: what's new?
Beate Heinrichfreise (Bonn, Germany)
- 11.45-12.10 Epidemiology, diversity and pathogenic role of chlamydia-related bacteria
Mirja Puolakkainen (Helsinki, Finland)
- 12.10-12.20 Ticks as a new potential reservoir and vector for chlamydiae
Ludovic Pilloux (Lausanne, Switzerland)
- 12.20-12.30 Novel *Candidatus Rhabdochlamydia* sp. associated with both native Australian marsupials and their parasiting tick species
Delaney Burnard (Brisbane, Australia)
- 12.30-12.40 Antibiotic susceptibility of *Simkania negevensis*
Manon Vouga (Lausanne, Switzerland)

10.55-12.40 Parallel Session 2bis: Pathophysiology of Anaplasmataceae

Moderators : Nahed Ismail & Yasuko Rikihisa

- 10.55-11.20 Ehrlichia exploitation of conserved host cell pathways for survival
Jere W. McBride (Galveston, TX, USA)
- 11.20-11.45 Cell-specific regulation of inflammasome via type I interferon in Ehrlichiosis
Nahed Ismail (Pittsburgh, PA, USA)
- 11.45-11.55 *Ehrlichia minasensis*, a model organism to study bacterial host shift
Alejandro Cabezas-Cruz (Maisons-Alfort, France)
- 11.55-12.05 *Ehrlichia chaffeensis* tandem repeat effector targets differentially influence infection
Tian Luo (Galveston, TX, USA)
- 12.05-12.15 Human anti-OMP-1 monoclonal antibodies inhibit Ehrlichia chaffeensis infection through extracellular and intracellular mechanisms
Thangam Sudha Velayutham (Galveston, TX, USA)
- 12.15-12.25 Structural basis for recombinatorial permissiveness in the generation of *Anaplasma marginale* Msp2 antigenic variants
Telmo Graça (Pullman, WA, USA)
- 12.25-12.35 Exploration by a dual approach of the role in cattle abortion of an *Anaplasma phagocytophilum* vacuolar membrane protein
Anne-Claire Lagrée (Maisons-Alfort, France)

12.40-14.00 Lunch and poster session 2

14.00-15.35 Session 3 : Bartonella epidemiology

Moderators: Jane Koehler & Beate Heinrichfreise

- 14.00-14.25 *Bartonella henselae* and cat scratch disease: from epidemiology to genomics in a “one health” perspective
Henri-Jean Boulouis (Maisons-Alfort, France)
- 14.25-14.50 *Bartonella* : from cats to bats
Bruno Chomel (Davis, CA, USA)
- 14.50-15.15 Emerging bartonella infections in West Africa
Oleg Mediannikov (Marseille, France)
- 15.15-15.25 Prevalence (culture, PCR and serology) of *Bartonella* spp. in asymptomatic people working in a sanitary center from La Rioja, Spain
Aranzazu Portillo (Logrono, Spain)
- 15.25-15.35 Understanding the influence of host demography on Bartonella diversity
Richard Hassall (Aberdeen, United Kingdom)

14.00-15.25 Parallel session 3bis : Genomics and genetics of Chlamydiaceae

Moderators: Adam Polkinghorne & Matthieu Million

- 14.00-14.25 Genomics of *Chlamydia* and *Chlamydia*-related bacteria
Adam Polkinghorne (Brisbane, Australia)
- 14.25-14.50 The chlamydial plasmid : role in tropism and virulence
Ian Clarke (Southampton, United Kingdom)
- 14.50-15.15 Transformation of chlamydia : current approaches and impact in our understanding of chlamydial biology
Kenneth Fields (Lexington, KY, USA)
- 15.15-15.25 Comparative genomics of Chlamydiae
Trestan Pilonel (Lausanne, Switzerland)

15.25-16.15 Coffee break and poster session 3

16.15-17.50 Session 4 : Pathogenesis of Chlamydia and Chlamydia-related bacteria

Moderators: Steven Webster & Jason Carlyon

16.15-16.40 *Chlamydia*-related bacteria and related epitheliocystis in fish

Loyd Vaughan (Zurich, Switzerland)

16.40-17.05 *A new drug target in chlamydial infection*

Allen W. Tsang (Winston-Salem, NC, USA)

17.05-17.30 *New insights on the role of the CPAF protease*

Raphael Valdivia (Raleigh, NC, USA)

17.30-17.40 *Experimental challenge of pregnant cattle with the putative abortifacient*

Waddlia chondrophila

Nick Wheelhouse (Edinburgh, United Kingdom)

17.40-17.50 *An homologue of a sporulation protein of B. subtilis is involved in peptidoglycan remodeling during chlamydial division*

Nicolas Jacquier (Lausanne, Switzerland)

17.50-18.35 Keynote lecture

17.50-18.35 *Contribution of rickettsiology to modern microbiology*

Didier Raoult (Marseille, France)

19.00-20.00 Jazz concert

The CNRS big band

20.00-22.00 Welcome drink



Tuesday, June 20th, 2017

08.30-10.15 Session 5: Other fastidious pathogens

Moderators : Gilbert Greub & Jose Antonio Oteo

- 08.30-08.55 Tularemia : changing epidemiological patterns in the world
Max Maurin (Grenoble, France)
- 08.55-09.20 From bacteria to ticks : lessons in antimicrobial defense
Seemay Chou (San Francisco, CA, USA)
- 09.20-09.45 Emerging horizons for tick-borne pathogen research: from the one pathogen-one disease vision to
Muriel Vayssier-Taussat (Maisons-Alfort, France)
- 09.45-09.55 Comparative analysis of *Mycobacterium kansasii* subtypes
Florian Tagini (Lausanne, Switzerland)
- 09.55-10.05 New European tick cell lines for isolation and propagation of intracellular bacteria
Lesley Bell-Sakyi (Liverpool, UK)
- 10.05-10.15 Co-evolutionary analyses of the symbiosis between the ship tick (*Ixodes ricinus*) and its symbiont "*Mitochondria*" by multi-locus sequence typing
Alaa Mohammed Al-Khafaji (Liverpool, UK)

10.15-10.45 Coffee break and poster session 4

10.45-12.30 Session 6 : Pathophysiology of Q fever

Moderators : Stacey D. Gilk & Muriel Vayssier-Taussat

- 10.45-11.10 Cholesterol and loss of the Coxiella intracellular niche
Stacey D. Gilk (Indianapolis, IN, USA)
- 11.10-11.35 Defining Coxiella-host cell interactions using a human lung infection platform
Daniel E. Voth (Little Rock, AK, USA)
- 11.35-11.45 CXCL-9, a promising biomarker in the diagnosis of chronic Q fever
Anne F.M. Jansen (Nijmegen, the Netherlands)
- 11.45-11.55 Immunological manifestations in a chronic Q fever patient: a common problem with potential diagnostic and therapeutic pitfalls
Ruud P.H. Raijmakers (Nijmegen, the Netherlands)
- 11.55-12.05 Altering lipid droplet homeostasis affects Coxiella burnetii intracellular growth
Minal D. Mulye (Indianapolis, IN, USA)

10.45-11.20 Parallel Session 6bis: Type III secretion system of Chlamydiae

Moderators: Daniel Paris & Stephen Graves

- 10.45-11.10 The type three secretion system of chlamydiae
Agathe Subtil (Paris, France)
- 11.10-11.20 Identification and characterization of Wace1, *W. chondrophila* effector protein secreted by type III secretion system within host cell cytoplasm
Carole Kebbi-Beghdadi (Lausanne, Switzerland)

11.20-11.35 Parallel Session 6ter : Epidemiology of rickettsioses

Moderators: Daniel Paris & Stephen Graves

- 11.20-11.45 Transmission mechanisms for emerging rickettsial pathogens
Kevin Macaluso (Baton Rouge, LA, USA)
- 11.45-12.10 *Rickettsia sibirica mongolitimonae*, a frequent rickettsiosis in France
Emmanouil Angelakis (Marseille, France)

12.05-13.00 Lunch and poster session 5

13.00-15.05 Session 7 : Genomics, transcriptomics and ecology of Anaplasmataceae

Moderators: J. Stephen Dumler & Mirja Puolakkainen

- 13.00-13.25 *Anaplasma phagocytophilum* AnkA nuclear architecture alterations and transcriptional reprogramming
J. Stephen Dumler (Baltimore, MD, USA)
- 13.25-13.50 Roles and functions of T4SS in *Ehrlichia* species
Yasuko Rikihisa (Columbus, OH, USA)
- 13.50-14.15 A tick endosymbiont with *Anaplasma marginale* in cell culture
Kelly A. Brayton (Pullman, WA, USA)
- 14.15-14.25 Genomic analysis of four *Ehrlichia* species identified large and diverse effector repertoires
Christophe Noroy (Guadeloupe, France)
- 14.25-14.35 Molecular approach for the discovery of unknown *Anaplasmataceae* species
Mustapha Dahmani (Marseille, France)
- 14.35-14.45 Screening of tick-borne pathogens in Caribbean ticks using new high-throughput technologies (DOMOTICK project)
Mathilde Gondard (Maisons-Alfort, France)
- 14.45-14.55 Prevalence of *Anaplasma*, *Bartonella* and *Borrelia* species in raccoon dogs (*Nyctereutes procyonoides*) in the Republic of Korea
Young-Sun Cho (Seoul, Korea)
- 14.55-15.05 Detection of tick-borne diseases in wild boars (*Sus scrofa*) in the Republic of Korea
Jeong-Byoung (Seoul, Korea)

15.05-15.40 Coffee break and poster session 6

15.40-17.25 Session 8: Pathophysiology of Chlamydia

Moderators: Ian Clarke & Bruno Chomel

- 15.40-16.05 Adhesins of *Chlamydia*
Johannes Heggemann (Dusseldorf, Germany)
- 16.05-16.30 *Chlamydia* and the inflammasome
Steven Webster (Cambridge, United kingdom)
- 16.30-16.55 New insights on the ultrastructure of *Chlamydia* and their interactions with the host cells
Richard Hayward (London, United kingdom)
- 16.55-17.05 *Chlamydia* energy metabolism revisited: V/A-ATPase in focus as a novel drug target
Denys Pogoryelov (Frankfurt Am Main, Germany)
- 17.05-17.15 Identification of *Waddlia chondrophila* proteins involved in transcriptional regulation
Marie de Barsy (Lausanne, Switzerland)
- 17.15-17.25 Characterization of cell division mechanisms in the Chlamydia-related bacterium *Waddlia chondrophila*
Firuza Bayramova (Lausanne, Switzerland)

15.40-17.30 Parallel session 8bis: Epidemiology and pathophysiology of ehrlichiae

Moderators : Jean-Marc Rolain & Allen W. Tsang

- 15.40-16.05 Epidemiology of infections caused by Anaplasmataceae in animals
Jean-Lou Marié (Toulon, France)
- 16.05-16.30 Ecology of *Anaplasma phagocytophilum* informs its evolution
Janet E. Foley (Davis, CA, USA)

- 16.30-16.55 *Candidatus Neoehrlichia mikurensis* in Europe
Jose Antonio Oteo (Logrono, Spain)
- 16.55-17.05 *Candidatus Neoehrlichia mikurensis* in patients with meningitis-like symptoms after tick-bite in Poland
Anna Moniuszko-Malinowska (Bialystok, Poland)
- 17.05-17.15 *Anaplasma phagocytophilum* in Japan
Norio Ohashi (Shizuoka, Japan)
- 17.15-17.25 Prevalence of tick-borne pathogens in dogs from Korea
Jun-Gu Kang (Seoul, Korea)

19.00 **Gala diner**



Wednesday, June 21st, 2017

08.30-10.15 Session 9 : new aspects of Q fever

Moderators : Emmanouil Angelakis & Richard Hayward

- 08.30-08.55 Outcome and complications of Q fever, lessons from the Dutch national database
Chantal Bleeker-Rovers (Nijmegen, The Netherlands)
- 08.55-09.20 New clinical forms of Q fever
Matthieu Million (Marseille, France)
- 09.20-09.30 Chronic Q fever-related complications and mortality: data from a nationwide cohort
Sonja E. van Roeden (Utrecht, the Netherlands)
- 09.30-09.40 *Coxiella burnetii* and *Borrelia burgdorferi* sensu lato in poultry red-mites, *Dermanyssus gallinae* related to red-mite dermatitis outbreaks in city-dwellers, in Italy
Donato Antonio Raele (Foggia, Italy)
- 09.40-09.50 Progression of *Coxiella burnetii* contamination in the air and environment in naturally infected sheep flocks during two consecutive lambing seasons
Raquel Alvarez-Alonso (Bizkaia, Spain)
- 09.50-10.00 Abortion nor placental *Coxiella burnetii* excretion in pre-breeding challenged pregnant goats
Hendik-Jan Roest (Wageningen, the Netherlands)
- 10.00-10.10 *Coxiella burnetii* – epidemiological situation with particular emphasis on genotypes circulating in population of Polish ruminants
Monika Szymanska-Czerwinska (Pulawy, Poland)

08.30-10.10 Parallel Session 9bis: Epidemiology and diagnosis of Rickettsioses

Moderators : Chantal Bleeker-Rovers & Oleg Mediannikov

- 08.30-08.55 Update on vector-borne rickettsioses in North Africa
Idir Bitam (Algiers, Algeria)
- 08.55-09.20 Diversity and uniformity of rickettsia and rickettsia-related pathogens in Japan
Shuji Ando (Tokyo, Japan)
- 09.20-09.30 Eschar and multi-organ dysfunction: preliminary findings from India
John A.J. Prakash (Vellore, India)
- 09.30-09.40 Molecular and MALDI-TOF identification of ticks and tick-associated bacteria in Mali
Adama Zan Diarra (Bamako, Mali)
- 09.40-09.50 Evaluation of blood collection tube additives for *Rickettsia rickettsii* conservation and detection
Ida Chung (Atlanta, GA, USA)
- 09.50-10.00 Factors affecting the successful *in vitro* isolation of rickettsial organisms from clinical samples
Matthew T. Robinson (Oxford, UK)
- 10.00-10.10 Exponential increases in *Rickettsia* spp. molecular detection sensitivity
Cecilia Y. Kato (Atlanta, GA, USA)

10.10-10.45 Coffee break and poster session 7

10.45-12.30 Session 10: Rickettsia, from genomics to diagnostics

Moderators: Kevin Macaluso & Agathe Subtil

- 10.45-11.10 Rickettsial genomics and the paradigm of genome reduction associated to increased virulence
Pierre-Edouard Fournier (Marseille, France)
- 11.10-11.35 New approaches in the systematics of rickettsiae
Stanislav Shpynov (Moscow, Russia)
- 11.35-12.00 *Rickettsia philipii* : its vector, disease, and genetics
Marina Ereemeeva (Statesboro, GA, USA)

- 12.00-12.10 [Retrospective analysis of tetracycline and new quinolone therapy for Japanese spotted fever](#)
Hiroko Shigemi (Fukui, Japan)
- 12.10-12.20 [Atg5-dependent autophagic response in macrophages supports the survival of *Rickettsia australis* via inhibiting IL-1 \$\beta\$ secretion](#)
Rong Fang (Galveston, TX, USA)
- 12.20-12.30 [Host players involved in the interaction between spotted fever group rickettsiae and macrophage-like cells](#)
Simoes Isaura (San Francisco, CA, USA)

12.30-14.00 Lunch and ESCCAR committee election

14.00-15.45 Session 11: *Bartonella* pathophysiology and ancient infections

Moderators: Henri-Jean Boulouis & Kenneth Fields

- 14.00-14.25 [Molecular adaptation of *Bartonella* to its human and louse niches](#)
Jane E. Koehler (San Francisco, CA, USA)
- 14.25-14.50 [Paleo-bartonellology](#)
Michel Drancourt (Marseille, France)
- 14.50-15.15 [Implications on the public health of Brazilian blood, tissue and organ recipients following detection of *Bartonella* species in donated blood](#)
Diana G. Scorpio (Baltimore, MD, USA)
- 15.15-15.25 [Infections with *Bartonella* spp. in free ranging cervids and deer keds \(*Lipoptena cervi*\) in Southern Norway](#)
Algimantas Paulauskas (Kaunas, Lithuania)
- 15.25-15.35 [Detection and seroprevalence of *Bartonella henselae* in small Indian mongooses \(*Herpestes auropunctatus*\) from Grenada island](#)
David A. Jaffe (Davis, CA, USA)

14.00-15.40 Parallel Session 11bis: *Orientia tsutsugamushi*

Moderators: Kelly Brayton & Raphael Valdivia

- 14.00-14.25 [Molecular insights into how *Orientia tsutsugamushi* ankyrin repeat-containing effectors modulate host cell processes](#)
Jason A. Carlyon (Richmond, VA, USA)
- 14.25-14.50 [Clinical trials of doxycycline and azithromycin therapy in scrub typhus and murine typhus therapy](#)
Paul Newton (Vientiane, Laos)
- 14.50-15.00 [The burden of scrub typhus – the Asian perspective](#)
Daniel Paris (Basel, Switzerland)
- 15.00-15.10 [The ecology of scrub typhus – facts, fiction and filling in the gaps](#)
Ivo Elliott (Oxford, UK)
- 15.10-15.20 [Inhibition of RNA polymerase switch region by coralopyronin A : a new drug target against *Orientia tsutsugamushi* in vitro and in vivo](#)
Christian Keller (Marburg, Germany)
- 15.20-15.30 [Genetic diversity of *Orientia tsutsugamushi* strains from patients in north India](#)
Manisha Biswal (Chandigarh, India)
- 15.30-15.40 [*Orientia tsutsugamushi* modulates endoplasmic reticulum stress and endoplasmic reticulum-associated degradation for optimal growth](#)
Kyle Rodino (Richmond, VA, USA)

15.35-16.15 Coffee break and poster session 9

16.15-18.00 Session 12: *Coxiella burnetii* vaccine, diagnosis and genomics

Moderators: Idir Bitam & Dimitrios Frangoulidis

- 16.15-16.40 A new vaccine for Q fever
Stephen Graves (Geelong, Australia)
- 16.40-16.50 Elucidating and exploiting O-antigen biosynthesis for Q fever vaccine
Alice Cross (Exeter, UK)
- 16.50-17.00 Development of an aerosol model of Q fever in the common marmoset (*Callithrix jacchus*)
Isobel Norville (Salisbury, UK)
- 17.00-17.10 Harmonization of PCR-based diagnosis for improved quality of data : the example of the French network of Q fever surveillance in ruminants
Elodie Rousset (Sophia-Antipolis, France)
- 17.10-17.20 Swab cloths as tools to reveal Q fever environmental contamination in ruminant herds
Elsa Jourdain (Saint Genès Champanelle, France)
- 17.20-17.30 Comparison of the attenuated Nine Mile strain clone 4 (phase II) with strain Nine Mile phase I (RSA 493) at the genome level
Dimitrios Frangoulidis (Munich, Germany)

17.30-18.00 Young investigator awards and Farewell address

