



## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

Venue: City Auditorium. Street Eduardo Ibarra, 3, Zaragoza.

This program is near final, and changes in the main sessions are expected. It is circulated mainly to provide delegates with a framework for ticket booking. Only the name of the corresponding author is included for each presentation.

Sunday, August 28th. Welcome cocktail. Documentation will be also available. After 18.00

Monday, August 29th.

- 8.30-9.00: Key presentation, Peter Willadsen
- 9.00-10.30: Oral presentations: Vaccines
- 10.30-11.00: Coffee Break
- 11.00-13.00 Oral presentations: Vaccines
- 13.00-14.30: Lunch
- 14.30-16.15: Oral presentations: Morphology, systematics and evolution
- 16.15-16.45: Coffee Break
- 16.45-18.30: Oral presentations: Morphology, systematics and evolution (cont.) and  
Physiology, biochemistry and related molecular biology.
- 18.30-----: Refreshments and poster session

Tuesday, August 30th.

- 8.30-10.30: Oral presentations: Physiology, biochemistry and related molecular biology  
(cont.)
- 10.30-11.00: Coffee Break
- 11.00-11.30: Key presentation: Jean Tsao
- 11.30-13.00: Oral presentations: Life cycle, ecology and epidemiology
- 13.00-14.30: Lunch
- 14.30-16.15: Oral presentations: Tick-borne diseases in humans
- 16.15-16.45: Coffee Break
- 16.45-17.00: Key presentation: Domenico Otranto
- 17.00-18.00: Ticks and Pets. Special sessions sponsored by Bayer.
- 18.00-----: Refreshments and poster session

Wednesday, August 31th.

all the day: social excursion, beginning approximately at 9.00. We will visit the "Monastery of Stone" a natural park near Zaragoza. We will have a lunch inside the Cister Monastery. We will then travel to visit a near Cellar, with a cocktail and a special gift. It is intende to return to the hotels around 22.00



# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

## Thursday, September 1st.

- 8.30-10.45: Oral presentations: Ticks and Tropical veterinary Medicine. Special session sponsored by the Society of tropical Veterinary Medicine.
- 10.45-11.15: Coffee Break
- 11.15-13.00: Oral presentations: Tick-borne diseases and humans (cont.)
- 13.00-14.30: Lunch
- 14.30-15.00: Key presentation: Michael Bull
- 15.00-16.15: Oral presentations: Life cycle, ecology and epidemiology (cont.)
- 16.15-16.45: Coffee Break
- 16.45-18.15: Oral presentations: Life cycle, ecology and epidemiology (cont.)
- 18.30-----: Refreshments and poster session

## Friday, September 2nd.

- 8.30-10.30: Oral presentations: Physiology, biochemistry and related molecular biology (cont.)
- 10.30-11.00: Coffee Break
- 11.00-13.00: Oral presentations: Physiology, biochemistry and related molecular biology (cont.)
- 13.00-14.30: Lunch
- 14.30-16.00: Oral presentations: Physiology, biochemistry and related molecular biology (cont.)
- 16.00-17.30: Prevention and control.
- 17.30-----: Coffee Break and closing of the congress



# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

## August 29th

### Session: Vaccines (Oral)

Peter Willadsen, 8.30-9.00 Key presentation

51	09.00-09.15	Structural and polymorphic analysis of HA03 as a candidate conserved antigen of <i>Hyalomma anatolicum anatolicum</i>	Aghaiypour Kolyani	Khosrow
165	09.15-09.30	Protective efficacy of bacterial membranes containing surface-exposed tick protective antigens for the control of cattle tick infestations	Almazán	Consuelo
179	09.30-09.45	A systematic, functional genomics approach for the identification of protective antigens from the cattle tick, <i>Rhipicephalus (Boophilus) microplus</i>	Maritz-Olivier	Christine
180	09.45-10.00	Tick iron metabolism -- new target for vaccine development	Hajdusek	Ondrej
182	10.00-10.15	Genome-based selection of anti-cattle tick vaccine candidate antigens	Guerrero	Felix
213	10.15-10.30	Evaluation of novel targets selected with reverse immunovaccinology for a vaccine against the cattle tick.	Maruyama	Sandra Regina
217	11.00-11.15	Vaccination of cattle with the Bm86 homologue from <i>Rhipicephalus appendiculatus</i> significantly reduces the efficiency of nymphal moulting: modeling the potential impact on tick population and disease dynamics	Olds	Cassandra
233	11.15-11.30	Genomic and proteomic approaches to antigen selection: towards the development of an anti-tick vaccine for bovines	Ferreira Beatriz	
237	11.30-11.45	Immunoprotection of cattle vaccinated with rRmLTI against <i>Rhipicephalus microplus</i>	Renato	
315	11.45-12.00	Assessment of bovine immunoprotection against <i>Rhipicephalus microplus</i> using BmCG antigen expressed in <i>Pichia pastoris</i>	Andreotti	Renato
327	12.00-12.15	Research update on the potential use of anti-tick to support the USDA Cattle Fever Tick Eradication Program	Miller	Robert
401	12.15-12.30	Assessing cross-immunity of DNA encoding salivary proteins of <i>Rhipicephalus microplus</i> against challenges with <i>R. sanguineus</i> in dogs and mice	Anatriello	Elen
214	12.30-12.45	A vaccine trial in lambs with an inactivated vaccine against <i>Anaplasma phagocytophilum</i>	Snorre	Stuen
323	12.45-13.00	Characterization of <i>Babesia bovis</i> bovipain-2: a potential new target for vaccine and drug development against bovine babesiosis	Florin-Christensen	Monica

## August 29th

### Session: Morphology, Systematics & Evolution (Oral)

30	14.30-14.45	The mitochondrial genomes of two "primitive" ticks, <i>Amblyomma sphenodonti</i> and <i>Amblyomma elephense</i> , and a new understanding of the systematic relationships among the Metastrata.	Barker	Stephen
101	14.45-15.00	Body Shape Evolution in Host Races of the Seabird Tick <i>Ixodes uriae</i>	Dietrich	Muriel
143	15.00-15.15	A preliminary phylogeny of <i>Amblyomma</i> (Acari: Ixodida) inferred from 18S rRNA and 12S rRNA	Dold	Stephanie
212	15.15-15.30	Evolution and Systematics of Ixodoidea: patterns and processes.		Matthee
			Conrad	
396	15.30-15.45	Reassessing the taxonomic status of <i>Amblyomma cajennense</i> (Fabricius, 1787): combining morphological, molecular, and eco-biological data.	Beati	Lorenza
397	15.45-16.00	Population genetics of <i>Ixodes scapularis</i> Say, 1821	Beati	Lorenza
304	16.00-16.15	Polymorphic EST-SSR markers and their application in assessing the genetic diversity of laboratory and Kenyan field populations of the tick <i>Rhipicephalus appendiculatus</i> (Acari: Ixodidae)	Kanduma	Esther
97	16.45-17.00	Isolation and characterization of <i>Babesia</i> from Red Deer ( <i>Cervus elaphus</i> ) in Spain: the puzzle of <i>Babesia</i> species from ruminants and host specificity.	Malandrin	Laurence



# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

134 17.00-17.15 Infection with multiple pathogens in Dermacentor spp. ticks collected in 11 veterinary practices diagnosed with tick-borne diseases in France. Joncour Guy

## August 29th

### Session: Physiology, Biochemistry & Related Molecular Biology (Oral)

244 17.15-17.30 Rel Transcription Factor Regulates Defensin Gene Expression in the Soft Tick Ornithodoros moubata (Acari: Argasidae) Tsubokawa Satomi  
110 17.30-18.00 Mechanical properties of the cuticle of the ixodid female, Amblyomma hebraeum W. Reuben Kaufman  
184 18.00-18.15 Dendritic cell modulators and their potential role in tick-borne virus transmission Nuttall Pat  
7 18.15-18.30 Female ixodid ticks grow endocuticle during the rapid phase of engorgement Flynn Peter C.

## August 30th

### Session: Physiology, Biochemistry & Related Molecular Biology (Oral)

106 08.30-8.45 Adaptation and re-programming of Borrelia burgdorferi spirochetes to arthropod vectors and mammal hosts Sparagano Olivier  
42 08.45-9.00 Characterization of the anticoagulant protein Rhipilin-1 from the Rhipicephalus haemaphysaloides tick Zhou Jinlin  
111 09.00-9.15 Cloning and characterization of a recombinant Rmi-serpin expressed in Pichia pastoris yeast Rodriguez-Valle Manuel  
119 09.15-9.30 The role of Cytochrome P450s towards the control of ticks and other arthropods Sparagano Olivier  
129 09.30-9.45 The Tick Cell Biobank: two years on Bell-Sakyi Lesley  
243 09.45-10.00 Regulation of Vitellogenesis by Engorgement and Mating in the Soft Tick Ornithodoros moubata (Acari: Argasidae) Taylor DeMar  
229 10.00-10.15 Characterization of a novel VDAC-like protein in Rhipicephalus microplus midgut cells Rodríguez Hernández Elba  
234 10.15-10.30 Characterization of the vitellogenin receptor and two yolk proteins in the South African bont tick, Amblyomma hebraeum Smith, Alexander

## August 30th

### Session: Life cycle, Ecology & Epidemiology (Oral)

J. Tsao 11.00-11.30 Key presentation  
262 11.30-11.45 Monitoring piroplasms infection in three cattle farms with previous history of clinical piroplamosis Huratdo Ana  
307 11.45-12.00 Survey of Tick-Borne Pathogens of Domestic Animals in St. Kitts and Nevis, West Indies Loftis Amanda  
162 12.00-12.15 Dynamic of host-tick-host transmission of Borrelia afzelii osp C groups Tonetti Nicolas  
344 12.15-12.30 North vs. South differences in Ixodes scapularis abundance and host selection contribute to the geographic pattern of Lyme disease cases in the eastern U.S. Hickling Graham  
90 12.30-12.45 A model for bovine babesiosis to test scenarios and control strategies Hoch Thierry  
88 12.45-13.00 Facts and Artifacts: pathogen detection in ticks Tjisse-Klasen Ellen

## August 30th

### Session: Tick-borne diseases in humans (Oral)

282 14.30-14.45 Methodological difficulties in detection of Tick-born encephalitis virus, TBEV Andreassen Ashild Kristine





## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

345	14.45-15.00	Tick-borne viruses in Europe	Hubalek	Zdenek
365	15.00-15.15	TickMap - a new resource for online mapping of tick disease vectors	Foley	Desmond
388	15.15-15.30	Interactions Among Ixodes scapularis-Borne Pathogens	Fish	Durland
131	15.30-15.45	Vector competence of the tick Ixodes ricinus for transmission of Bartonella sp.	Bonnet	Sarah
166	15.45-16.00	Effect of Ixodes saliva on the skin homeostasis during the transmission of Lyme disease to the vertebrate host,	Boulanger	Nathalie
393	16.00-16.15	Arbovirus gene silencing in tick cell lines using double-stranded or small interfering RNA	Barry	Gerald

### August 30th

#### Session: Tick and Pets (Oral)

D. Otranto	16.45-17.00	Bayer session "Ticks and Pets"		
117	17.00-17.15	Low-density microarray for the detection of tick-borne pathogens	Hojgaard	Andrias
87	17.15-17.30	Isolation of canine Anaplasma phagocytophilum from clinical blood samples using the Ixodes ricinus cell line IRE/CTVM20.	Dyachenko	Viktor
398	17.30-17.45	Preliminary serological results of tick-borne infections of dogs in hungary	Farkas	Róbert
204	17.45-18.00	Rhipicephalus sanguineus heading due north?	Duscher	Georg

### September 1st

#### Session: Tropical Veterinary Medicine (Oral)

175	08.30-8.45	Naturally-occurring endemic stability is not a useful concept when planning control of tick-borne diseases of cattle under Australian conditions	Jonsson	Nicholas
251	08.45-9.00	Genetic characterization of the rickettsiale Ehrlichia ruminantium at world scale using new multi-locus approaches	Vachery	Nathalie
258	09.00-9.15	Diversity within the 18S hyper-variable region of Theileria spp. In Cape buffalo and cattle in southern Africa	Mans	Ben
314	09.15-9.30	Close encounters of the 4th kind: fine-tuning of Type IV Secretion System defines virulence of Ehrlichia ruminantium	Meyer	Damien
260	09.30-9.45	A multiplex DNA bead-based suspension array for simultaneous detection and species identification of bovine piroplasms	Ros-García	Amaia
250	09.45-10.00	Babesia bigemina Apical Membrane Antigen 1 (AMA-1) surface exposed, immunogenic B cell epitopes are conserved among isolates	Mosqueda	Juan
31	10.00-10.15	Designing bovine T-cell vaccines via reverse immunology	Nene	Vish
194	10.15-10.30	Rhipicephalus annulatus genes differentially expressed in response to infection with Babesia bigemina	Domingos	Ana
125	10.30-10.45	Rhipicephalus microplus established in West Africa	Madder	Maxime

### September 1st

#### Session: Tick-borne diseases in humans (Oral)

60	11.15-11.30	Human tick-borne diseases as complex systems: is changing risk predictable or controllable?	Randolph	Sarah E.
67	11.30-11.45	Common origins for the large linear plasmids of relapsing fever Borrelia and smaller plasmids of Lyme borreliosis	Borrelia	Campeau Shelley
120	11.45-12.00	Monitoring of Ixodes ricinus abundances and Borrelia prevalences in the nature reserve Siebengebirge, Germany over the last 20 years	Schwarz	Alexandra
124	12.00-12.15	Development of a sheep model for studying pathogen vector interactions of Anaplasma phagocytophilum and Ixodes scapularis	Kocan	Katherine



# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

99	12.15-12.30	Genetic structure of marine <i>Borrelia garinii</i> and population admixture with the terrestrial cycle of Lyme borreliosis	McCoy Karen D.
84	12.30-12.45	Tick-borne disease surveillance in Europe: initiatives of the European Center for Disease Prevention and Control	Van Bortel Wim
50	12.45-13.00	TBE risk areas – why are they so difficult to define?	Süss Jochen

## September 1st

### Session: Life cycle, Ecology & Epidemiology (Oral)

M. Bull	14.30-14.45	Key presentation	
71	14.45-15.00	How do ticks move around wildlife populations? Transmission networks in an Australian lizard.	Bull Michael
123	15.00-15.15	Effect of habitat fragmentation the abundance and species composition of ticks on rodents in agricultural landscapes	Matthee Sonja
197	15.15-15.30	Light microscopic study of the developmental cycle of <i>Ixodes scapularis</i> .	Kocan Katherine
332	15.30-15.45	Ticks and feral pigs in the Brazilian Pantanal	Ramos Vanessa do Nascimento
241	15.45-16.00	Isolation, characterization and ecological aspects of the Atlantic rainforest <i>Rickettsia</i> , the causative agent of a novel spotted fever rickettsiosis in Brazil	Szabó Matias Pablo Juan
100	16.00-16.15	Host-specificity as a factor of genetic divergence in ticks: case studies in <i>Ixodes uriae</i> , <i>Ixodes ricinus</i> and <i>Rhipicephalus microplus</i>	Chevillon Christine
387	16.15-16.30	Life cycle of <i>I. ricinus</i> in Central Europe	Kahl Olaf
232	17.00-17.15	Difference in <i>Borrelia burgdorferi</i> ospC genotypes between host tissue and feeding ticks, determined by terminal restriction fragment length polymorphisms	Tsao Kimberly
121	17.15-17.30	Oral Wild mice infected with Lyme disease have higher survival than uninfected mice	Voordouw Maarten
238	17.30-18.00	Oral A surrogate life cycle of the <i>Amblyomma ovale</i> tick	Szabó Matias Pablo Juan
61	18.00-18.15	Oral Tick occurrence and prevalence of <i>Anaplasma phagocytophilum</i> , <i>Rickettsia</i> spp. and <i>Babesia</i> spp. in city parks in Bavaria, Germany	Cornelia Silaghi

## September 2nd

### Session: Physiology, Biochemistry & Related Molecular Biology (Oral)

156	08.30-8.45	Global gene expression profiling of bovine skin: insights into mechanisms of resistance to ticks	Franzin Alessandra Mara
378	08.45-9.00	Analysis of Coding and Non-coding DNA Offers Insights into Tick Evolution and New Approaches for Tick Control	Hill Catherine
62	09.00-9.15	Characterization of the tick-pathogen interface by quantitative proteomics	Villar Margarita
92	09.15-9.30	The transcriptome of the salivary gland of <i>Antricola delacruzi</i> , a non-hematophagous scavenging adult tick	de Miranda Santos Isabel
109	09.30-9.45	The proteome of <i>Rhipicephalus microplus</i> larval, nymphal and adult ticks changes according to the origin of the blood meal	Rocha Garcia Gustavo
118	09.45-10.00	Functional analysis of tick genes differentially expressed in response to <i>Anaplasma phagocytophilum</i> infection	Busby Ann
135	10.00-10.15	Tick transmission of <i>Anaplasma marginale</i>	Brayton Kelly
371	10.15-10.30	Metagenomic approach to identify tick-borne pathogens by using ultra high throughput DNA sequencing and data analyzing technologies	Sugimoto Chihiro
246	11.00-11.15	Functional genomics of tick complement system components	Kopacek Petr



## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

11	11.15-11.30 Michail	Novel target specificity and mode of action of a tick salivary serpin	Kotsyfakis
276	11.30-11.45	Microarray evidence for off target effects in tick RNA interference experiments, and the lack of strong correlation between dsRNA and antibody phenotypes in tick in vitro treatments for vaccine candidate screening.	Lew-Tabor Ala
305	11.45-12.00	Functional Genomics of Tick Sialome to Prevent Tick-Borne Diseases	Karim Shahid
400	12.00-12.15	Differential in gel electrophoresis identifies differences in the proteomic profile induced by salivary and larval proteins of Rhipicephalus microplus ticks fed on susceptible or resistant bovine hosts	Garcia Gustavo Rocha
138	12.15-12.30	Comparative genomics of tick-borne transmission: resolving trait-gene relationships in Anaplasma marginale	Aguilar Sebastian
363	12.30-12.45	The repertoire of histone acetyltransferases (HATs) and histone deacetylases (HDAC) in piroplasmids pathogenic for bovines	Schnittger Leonhard
320	12.45-13.00	Genotypic diversity of major surface protein 1a of Anaplasma marginale in an endemic population	Castañeda Ortiz Elizabeth Jacqueline
277	14.30-15.00	A new web-based genomics resource for bioinformatics analysis of Rhipicephalus (Boophilus) microplus: CattleTickBase	Lew-Tabor Ala
252	15.00-15.15	Localization of serotonin- and octopamine-immunoreactive neurons in the synganglion of the southern cattle tick Rhipicephalus microplus (Acari: Ixodidae)	Li Andrew
256	15.15-15.30	The gut-associated hemoglobinas of Ixodes ricinus	Sojka Daniel
375	15.30-15.45	The kinetics of the humoral immune response during Rhipicephalus microplus tick infestation in resistant and susceptible hosts.	Garcia Gustavo Rocha
248	15.45-16.00 IN THE TICK GUT	IRCL1 AND IRCD1 – THE ACIDIC ENZYMES INITIATING THE HEMOGLOBIN DIGESTION	Franta Zdenek

### September 2nd

#### Session: Prevention and Control (Oral)

189	16.00-16.15	A single nucleotide polymorphism in a putative $\alpha$ -adrenergic-like octopamine receptor is associated with amitraz resistance in the cattle tick Rhipicephalus (Boophilus) microplus	Corley Sean
48	16.15-16.30	Protective value of prophylactic antibiotic treatment of tick bite for Lyme disease prevention: An Animal model.	Piesman Joseph
53	16.30-16.45 Ghosh	Identification of herbal acaricides against chemical acaricide resistant Indian cattle tick	Srikanta
98	16.45-17.00	Acaricidal action of water extracts from Eysenhardtia polystachya (Ortega) Sarg. (Leguminosae: Lotoideae) against Rhipicephalus (Boophilus) microplus	Alcala-Canto Yazmin
103	17.00-17.15	Effects of Moxidectin 10% in a long acting injectable formulation against tick infestation of cattle in Spain	García-Pérez Ana L.
383	17.15-17.30	Performance of a Metarhizium anisopliae-treated semiochemical-baited trap in reducing Amblyomma variegatum populations in the field	Nchu Felix

### Poster presentations

#### August 29th and 30th (all day)

3	Laboratory Breeding of Camel tick Hyalomma dromedarii (Ixodidae) on Cattle and comparing data to Classical data of breeding on Camel	Abdigouarzi Mohammad
14	Survival of embryo Rhipicephalus (Boophilus) microplus (Canestrini, 1887) (Acari: Ixodidae) at different periods of exposure to extreme temperatures in controlled laboratory conditions	Pinheiro Michele





# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 16 Fauna of ticks (Acari: Ixodidae) on wild birds captured on the campus of Universidade Federal Rural do Rio de Janeiro, Seropédica, Brazil. Costa-Santolin Isis
- 17 Prevalence of *Borrelia burgdorferi* s.l. in Ticks Collected in the Parks of Brno, the Second Largest City in the Czech Republic Nejezchlebova Helena
- 23 Life cycle of the *Dermacentor marginatus* (Acari: Ixodidae) under laboratory conditions in shahmirzad area (Semnan, Iran). Changizi Emad
- 28 Co-feeding as a route for transmission of *Rickettsia conorii israelensis* between *Rhipicephalus sanguineus* ticks Levin Michael
- 29 Domestic Dogs (*Canis familiaris*) as Reservoir Hosts for *Rickettsia conorii* Levin Michael
- 45 Seroprevalence and epidemiological aspects of *Dirofilaria immitis*, *Borrelia burgdorferi*, *Ehrlichia canis* and *Anaplasma phagocytophilum* in dogs in Romania MirceanViorica
- 49 Molecular Detection of *Borrelia burgdorferi* s.l. in Tissues of Wild Carrier Hosts: Epidemiology, Genetic Diversity and Methodological Pitfalls MihalcaAndrei
- 54 Testing the effect of ungulates on the ecology of *Ixodes ricinus* and the epidemiology of zoonotic tick-borne pathogens in natural foci Ruiz-Fons Francisco
- 59 Prevalence of *Anaplasma phagocytophilum*, *A. bovis* and *Borrelia* spp. from Korean Water Deer (*Hydropotes inermis argyropus*) and Ixodid Ticks in the Republic of Korea Chae Joon-seok
- 73 Survey of zoonotic pathogens and antibodies against spotted fever group, Lyme disease, granulocytic anaplasmosis, and hemorrhagic fever with renal syndrome, in ticks, and *Apodemus agrarius* Chae Joon-seok
- 82 Future potential for Crimean-Congo haemorrhagic fever virus introduction and establishment in the United Kingdom Jameson Lisa
- 83 Potential reasons for an upsurge in Crimean-Congo haemorrhagic fever virus in Kosova Jameson Lisa
- 104 Reliability of molecular host-identification methods for ticks LEGER Elsa
- 107 Dual role of lizards in the ecology of Lyme disease in California Swei Andrea
- 113 Ecological preferences of exophilic and endophilic ticks (Acari: Ixodidae) parasitizing wild carnivores in the Iberian Peninsula Ruiz-Fons Francisco
- 122 A longitudinal study of the Lyme disease vector and pathogen in the Midwestern United States Hamer Sarah
- 126 Ixodid ticks population dynamics and *Borrelia burgdorferi* s.l. infection in the Parco Regionale "Boschi di Carrega" (Parma, Italy) Grandi Giulio
- 127 Low Incidence of Lyme Borreliosis in the Far-Western United States: Fact, Fiction or Merely a Highly Focal Disease? Lane Robert
- 154 Uncommon ticks from Italy Montarsi Fabrizio
- 158 *Ornithodoros brasiliensis* (mouro tick) epidemiology in Southern Brazil: characterization of distribution and retrospective human/animal cases of tick toxicosis Termignoni Carlos
- 169 In vitro culture of European *Anaplasma phagocytophilum* isolates in tick cells Zweygarth, Erich
- 170 Geographical distribution of tick infesting wild hunted animals in northern Italy: three years of data collection Maioli Giulia
- 171 Compilation of results on tick-borne zoonotic bacteria in *Ixodes ricinus* ticks from Northern Spain over the last decade Barandika Jesus F.
- 185 Bioecology, distribution and behaviour of *Rhipicephalus (Boophilus) microplus* (Acari:Ixodidae) in the Altiplano Cundibayocense, Colombia Cortés Vecino Jesús Alfredo
- 191 Disturbed Atlantic Forest fragments provide a stable environment for ticks associated with small mammals in Brazil Dantas TorresFilipe
- 195 *Borrelia burgdorferi* s.l. genospecies in ticks feeding on birds in Portugal Norte Ana Cláudia
- 199 Species diversity and seasonal distribution of free-living ticks in a wildlife reserve in southern Italy Dantas Torres Filipe
- 202 Ixodid ticks in the red fox from Galicia region (North-western of Spain) Chitimia Lidia





## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 210 Evaluation of tick-borne pathogens in several hosts from two different regions of Portugal Lopes de Carvalho Isabel
- 215 Detection of Theileria sp. ZS TO4 in red deer (*Cervus elaphus*) and in questing ticks Biro Nora
- 220 *Francisella tularensis* in ticks from an endemic region of tularemia in Slovakia Slovák Mirko
- 222 Performance of guinea pig and rabbit as hosts of *Rhipicephalus sanguineus* under laboratory conditions Ciocchetta Silvia
- 239 Geographic Distribution of Ixodid Ticks (Acari: Ixodidae) in north of Iran Sarani Moslem
- 57 Salivary glands of adult ticks *Ornithodoros brasiliensis*, ARAGÃO, 1923. Histological data Nunes Pablo Henrique
- 58 Location of *Rickettsia rickettsii* in ovaries of *Rhipicephalus sanguineus* (Latreille 1806) (Acari: Ixodidae). da Silva Costa Luís Flávio
- 68 *Rhipicephalus sanguineus* (Latreille, 1806) Brazilian strain and *Rhipicephalus turanicus* Pomerantsev, 1936 Spanish strain: Related species with particular morpho-biological characteristics. Sanches Gustavo
- 130 Light and electron microscopic analysis of European isolates of canine *Anaplasma phagocytophilum* grown in tick cells Passos Lygia
- 136 Detection and identification of bacterial endosymbionts and endogenous viruses in tick cell lines Alberdi Maria Pilar
- 141 Investigations on ticks and tick-borne diseases in Baden-Württemberg, Germany Miriam Pfäffle
- 181 Crossbreeding between different geographical populations of the brown dog tick – *Rhipicephalus sanguineus* Levin Michael, L.
- 216 The nervous system of *Rhipicephalus sanguineus* (Acari: Ixodidae). A histological study Roma Gislaine
- 254 Reproduction in a *Metastrata* tick, *Haemaphysalis longicornis* Matsuo Tomohide
- 257 Sequence variation and molecular phylogeny of novel *T. buffeli*-like and *T. sinensis*-like genotypes of the African buffalo (*Syncerus caffer*) based on their 18S rRNA gene and Internal Transcribed Spacer (ITS) sequences Oosthuizen Marinda
- 278 *Anaplasma* and *Ehrlichia* species of the African buffalo (*Syncerus caffer*) Oosthuizen Marinda
- 299 Comparative morphological study of the midgut of *Rhipicephalus sanguineus* (Acari: Ixodidae) (Latreille, 1806) fed male and semi-engorged female ticks. Camargo-Mathias Maria Izabel
- 340 Hepatozoon spp. in small mammals in Hungary Foldvari Gabor
- 358 Ultrastructural detection of proteins and carbohydrates in *Amblyomma cajennense* Fabricius, 1787 (Acari: Ixodidae) females midgut subjected to three infestations in several feeding stages. Camargo-Mathias Maria Izabel
- 359 Description of *Ornithodoros* sp. (Acari: Argasidae) found in Brazil on a new host class Moraes Barros-Battesti Darci
- 366 Genetic characterization of *Dermacentor reticulatus* using 16S rRNA as PCR target Palomar Ana
- 367 Genetic characterization of *Ixodes arboricola* using 16S rRNA and 12S rRNA as PCR targets. Palomar Ana M
- 368 Morphological and molecular classification of ticks removed from patients. A study from Spain. Santibáñez Paula
- 26 Inhibitor effects of Neem extracts (*Azadirachta indica* A. Juss) on the *Rhipicephalus sanguineus* ticks reproduction Denardi Sandra Eloisi
- 27 "NEEM" (*Azadirachta indica* A. Juss) acting on the salivary glands secretion in female ticks *Rhipicephalus sanguineus* Denardi Sandra Eloisi
- 13 Down-regulation of Toll Like Receptors (TLRs) Expression in *Theileria Annulata* Schizont Infected Cell Lines and Vaccine Strain During the Attenuation Process Haghparast, Alireza
- 43 The role of volatile odors of hosts in determining their repellence for ticks: a chemical and genomic evaluation in canine and bovine models Borges Ligia
- 46 Electrophysiology on contact chemoreceptors in *Rhipicephalus sanguineus* chelicerae Soares Sara
- 69 Insulin signaling and glycogen metabolism in the hard tick *Rhipicephalus microplus* Abreu Leonardo
- 70 Insulin cascade in *Rhipicephalus* (*Boophilus*) *microplus* embryos Logullo Carlos



## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 72 Hypothetical coexistence strategies of Babesia protozoa and vector ticks: the relationship between a parasite burden and the blood-digestion in the tick midgut. Hatta Takeshi
- 79 Analyzing targets and enzymes relevant for acaricide resistance by pyrosequencing the transcriptome of ixodid ticks Joannou Melania
- 94 Recombinant Aedes albopictus akirin production by Pichia pastoris in an aqueous two-phase semicontinuous fermentation process MORENO-CID MORA JUAN ANTONIO
- 150 Ornithodoros moubata cell culture producing the tick lectin, Dorin M. Sterba Jan
- 151 Characterization of the hemelipoglycoprotein from the tick, Dermacentor marginatus Dupejova Jarmila
- 152 Ixodes scapularis cystatin inhibits production of asthma-promoting cytokine interleukin-9 Horká Helena
- 157 Molecular Cloning and Differential Expression Analysis of Putative Salivary Metalloproteases from Rhipicephalus (Boophilus) microplus Termignoni Carlos
- 160 Identification of Theileria species in naturally infected indigenous sheep in two regions of Oman using nested PCR-RFLP method Tageldin Mohamed
- 176 Effect of tick saliva on signalling pathways activated by Borrelia afzelii in dendritic cells Lieskova Jaroslava
- 190 Generation of full length cDNAs for eight putative G-protein coupled neurotransmitter receptors from the cattle tick, Rhipicephalus (Boophilus) microplus. Corley Sean
- 192 Immunohistochemical mapping of CCHamide, calcitonin-like diuretic hormone and orckinins in hard ticks (Ixodidae) Slovák Mirko
- 205 Mass spectrometric identification and electron microscopy localization of sialic acids in Ixodes ricinus salivary glands Vancová Marie
- 209 An investigation into the Gram-positive antibacterial activity in the salivary glands of the soft tick, Ornithodoros savignyi. Gaspar Anabella
- 218 Structural characterization of immunomodulatory and anti-inflammatory peptidase inhibitors from tick saliva Kovarova Zuzana
- 221 Growth factor binding activity in salivary gland extracts of Hyalomma anatolicum excavatum ticks Slovák Mirko
- 227 Digestive fucosidase from Amblyomma cajennense Lopes Adriana
- 228 In silico and biochemical analysis of digestive enzymes in ticks Suesdek Lincoln
- 235 Determining the "critical weight" of ixodid tick, Dermacentor andersoni Ullah Shahid
- 249 Immunolocalization of digestive peptidases in the gut of Ixodes ricinus using affinity-purified specific antibodies Frantova Helena
- 253 Steps toward characterizing the morphological and molecular aspects of embryo development in the African cattle tick, Amblyomma hebraeum (Koch). Friesen Kevin
- 255 The impact of TOR silencing on vitellogenesis in the hard tick Haemaphysalis longicornis Umemiya-Shirafuji Rika
- 259 Functional characterization of the dual oxidase (DUOX) of the hard tick Ixodes ricinus Perner Jan
- 266 Parasiticidal activity of Haemaphysalis longicornis longicin against Toxoplasma gondii Tanaka Tetsuya
- 279 Comparing the genetic diversity of the Lyme disease pathogen, Borrelia burgdorferi, in samples derived from sympatric avian and rodent hosts and questing blacklegged ticks in the northern central United States Sidge Jennifer
- 281 Expression of the gene encoding AvaHIRU, a variegain-like peptide, in salivary glands of Amblyomma variegatum Kazimirova Maria
- 283 Different expression patterns of salivary proteins in the hard tick Ixodes ricinus. Havlíková Sabina
- 295 Molecular characterization of different strains of Theileria parva from Southern Sudan Salih Diaeldih
- 310 Characterisation of the antiviral RNA silencing pathway in an Ixodes scapularis cell line Schnettler Esther



## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 325 Innate immune response receptors in fat body of *Rhipicephalus (B.) microplus* da Fonseca Rezende  
Sabrina Rita
- 326 Presence and biological significance of glycosylation modifications of surface proteins in the hemoparasite  
protozoan *Babesia bovis* Florin-Christensen Monica
- 362 Boophilin, a thrombin inhibitor from *Rhipicephalus (Boophilus) microplus* midgut: expression, characterization  
and gene silencing. Tanaka Aparecida
- 380 Preliminary results on the microbial community profile from the tick *Amblyomma cajennense* (Acari: Ixodidae),  
using 16S rRNA amplification and DGGE fingerprinting. Granziera Spolidorio Mariana
- 382 Description and analysis of Salp25D homologue from *I. ricinus*: expression of functionally active major ROS  
detoxifying enzyme (peroxiredoxin) in bacterial expression system. Rudenko Natallia
- 384 Gluconeogenesis in *Rhipicephalus microplus* Braz Gloria Regina
- 390 Structural and biochemical characterization of a recombinant triosephosphate isomerase from *Rhipicephalus*  
(*Boophilus*) *microplus* Moraes Jorge
- 395 Sequence and structural analysis of N-linked glycans of Tick-borne encephalitis virus envelope glycoprotein E  
using mass spectrometry Hierwegová Diana
- 32 Phyloproteomics: comparative proteomics of *Amblyomma* species Popara Marina
- 37 Effect of heat shock protein expression on *Ixodes scapularis* questing behavior and stress responses to heat  
shock, feeding and *Anaplasma phagocytophilum* infection. Ayllón M<sup>a</sup> Nieves
- 108 Differential salivary gland gene expression in *Ixodes scapularis* nymphs upon feeding or flavivirus infection  
McNally Kristin
- 132 High throughput transcriptomic to identify *Ixodes ricinus* ticks factors involved in *Bartonella henselae*  
transmission by ticks Bonnet Sarah
- 139 Interaction Profile Between *Rickettsia rickettsii* And *Amblyomma aureolatum* Ticks Prudencio Carlos  
Roberto
- 144 Population genetics of *Ixodes scapularis* and transmission of the Lyme disease spirochete. Van  
Zee Janice
- 149 In silico identification of a novel SINE family in ixodid ticks. Patel Sonal
- 163 Italian strains of *Babesia bovis*: first description of surface antigens and molecular markers Torina Alessandra
- 200 Unveiling of microbial diversities within tick guts by analyzing metagenomic sequences with Batch Learning  
Self-Organizing Map (BLSOM) Abe Takashi
- 289 Characterization of *Babesia bigemina* perforin-like protein family Petrih Romina
- 308 Evolutionary conserved microRNAs are ubiquitously expressed compared to tick-specific miRNAs in the cattle  
tick *Rhipicephalus (Boophilus) microplus* Barrero Roberto
- 354 A partial genome scan study to identify loci for ticks resistance in cattle Guedes Elizangela
- 357 Identification of differentially expressed genes from a *Rhipicephalus (Boophilus) microplus* embryo cell line  
infected by *Anaplasma marginale* Duarte Bifano Thaís
- 361 Annotation of tick resistance associated SNPS in cattle Silva Marcos
- 369 Genetic variations of a Thai Bm86 gene of *Rhipicephalus (Boophilus) microplus* Jittapalapong Sathaporn
- 392 Proteomic analysis of Bm95, Bm86, and midgut proteins associated with immunity of Thai cattle tick,  
*Rhipicephalus (Boophilus) microplus* Jittapalapong Sathaporn
- 18 Repellency Testing by Modified Moving-Object Bioassay: Animal Protection against Ticks  
Nejezchlebova Helena
- 22 Ticks control using ricinoleic acid esters from castor oil *Ricinus communis* added to rabbits' commercial  
food Camargo-Mathias Maria Izabel
- 34 Effect of the acaricide Fipronil in semi-engorged females of the tick *Rhipicephalus sanguineus* (LATREILLE,  
1806) (Acari: Ixodidae) Oliveira Patrícia Rosa
- 74 Subolesin orthologs from *Ornithodoros* soft ticks: cloning, gene silencing and immunization trials with the  
recombinant antigens. Manzano-Román Raúl
- 75 Cloning and characterization of a plasminogen-binding, salivary enolase from *Ornithodoros moubata*.  
Díaz-Martín Verónica





# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 96 In vitro evaluation of permethrin, cypermethrin or zeta-cypermethrin mixed with plant extracts against susceptible and resistant (San Alfonso) *Rhipicephalus (Boophilus) microplus* (Acari: Ixodidae) strains Ibarra-Velarde Froylan
- 112 Bioassay and molecular survey of pyrethroid resistance in Brazilian field populations of *Rhipicephalus (Boophilus) microplus* Friche Passos Lygia
- 128 Bioprocess design and economics of recombinant antigen production for anti-tick vaccines Canales Mario
- 142 Anointing Behavior by Vertebrates: Protection against Ticks Carroll John
- 148 Feeding tick lesion in dogs immunized with the antigen Bm86 and challenged to adults of *Rhipicephalus sanguineus* Latreille, 1806 Furlan Bruna
- 159 Efficiency of sulphur extracted from garlic and from homeopathy in the control of the cattle tick *Rhipicephalus (Boophilus) microplus* Costa-Júnior Livio
- 164 Plant Extracts on cattle tick *Rhipicephalus (Boophilus) microplus* Costa-Júnior Livio
- 178 An improved in vitro feeding system for ixodid ticks Andrade John
- 188 *Rhipicephalus sanguineus* and transmitted pathogens to dogs: management and control Otranto Domenico
- 225 REVIVE: A Portuguese networking program for the surveillance of tick and tick-borne diseases Nuncio Sofia
- 240 Recombinant Peptide for Control of *Rhipicephalus microplus* Patarroyo Salcedo Joaquín
- 247 Investigation of Bm86 similar structure in midgut epithelial cells of *Hyalomma anatolicum anatolicum*, *Rhipicephalus turanicus* and *Boophilus annulatus* using anti-Bm86 monoclonal antibody Mirjalili Ali
- 287 Acaricidal Efficacy of Spinosad orally administered to wild rabbits naturally infested by Mesomediterranean ticks Olmeda A. Sonia
- 290 Acaricidal Efficacy of Spinosad II. in wild rabbits naturally infested by mesomediterranean ticks Olmeda A. Sonia
- 292 Integrated Control Strategies based on tick phenology in Mesomediterranean environment. Olmeda A. Sonia
- 301 Chemical composition and efficacy of *Croton sphaerogynus* (Euphorbiaceae) leaf extracts against the cattle tick *Rhipicephalus microplus* (Acari: Ixodidae) Abbud Righi Adne
- 312 Determination of knowledge about ticks control and resistance to acaricides in colombian livestock Bonilla Rodrigo
- 391 Analysis of cell-free hemolymph and hemocytes proteins of *Rhipicephalus microplus* challenged with fungi Angelo Isabele da Costa
- 33 Mice thyroids tissue under the action of Fipronil Camargo-Mathias Maria Izabel
- 208 A survey on tick species in Sardinia, Italy Foxi Cipriano
- 329 Evaluation of peripheral blood cytokine secretion in dogs naturally infected by *Ehrlichia canis* Villaescusa Alejandra
- 343 Factors associated with infection of canine babesiosis caused by *Babesia canis vogeli* in pure breed dogs Abreu-Silva Ana Lucía

## Poster presentations

### September 1st and 2nd (all day)

- 65 Quantitative multiplex 5' nuclease real-time PCR for *Ehrlichia*, *Anaplasma*, and *Bartonella* genera André Marcos
- 95 Evaluation of the erythrocytes and leucocyte alterations in cows infected with *Theileria annulata* Ramin Ali-Gholi
- 155 Microarray-based detection of tick-borne pathogens Geiger Christine
- 161 Detecting tick transmitted haemopathogens of horses using a reverse line blot assay Georges Karla
- 173 Prevalence of tick-borne pathogens in ticks in Lombardia region Maioli Giulia
- 174 Detection of *Rickettsia aeschlimanni* in *Hyalomma marginatum* ticks in Northern Italy Maioli Giulia



## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 193 Development of a rapid test for detection of *Theileria annulata* infection Seitzer Ulrike
- 206 Analysis of spirochete load in a laboratory model of Lyme disease – an essential tool for testing of vaccine candidates Sima Radek
- 207 Loop-mediated isothermal amplification method for detection of *Theileria lestoquardi* Bakheit Mohammed
- 231 Determination of post-vaccinal antibodies against *OspA* *Borrelia afzelii*, *B. garinii* and *B. burgdorferi sensu stricto* using ELISA method Nepereny Jiri
- 236 In vitro synthesis of *Babesia bigemina* Apical Membrane Antigen-1 and its promising use in a ELISA diagnostic test – preliminary data Torina Alessandra
- 245 Naturally occurring infections of cattle with *Theileria lestoquardi* and sheep with *Theileria annulata* in River Nile State, Sudan. Taha Khalid
- 324 Field trial of a competitive ELISA based on *Babesia bovis* MSA-2c for the serological diagnosis of bovine babesiosis in Argentina Florin-Christensen Monica
- 370 First case of *Anaplasma phagocytophilum* detected in Pyrenean chamois (*Rupicapra pyrenaica pyrenaica*) in Spain Fernandez de Mera Isabel G.
- 374 Fatal *Babesia* sp. (EU1) infection in a forest reindeer (*Rangifer tarandus tarandus*) in the Netherlands Nijhof Ard
- 264 Ecology of *Borrelia burgdorferi sensu lato* in natural foci in Slovakia and Czech republic, Central Europe Tarageová Veronika
- 267 *Rickettsia slovaca* vs. *Rickettsia raoultii* in Slovak Republic Spitalska Eva
- 268 Rodents as important hosts/reservoirs in the ecology of tick-borne pathogens in Slovakia Selyemová Diana
- 270 Ecology of *Borrelia burgdorferi sensu lato* in natural foci in Slovakia and Czech republic, Central Europe Tarageová Veronika
- 271 Ticks on wild animals in the Balearic Island (Spain) Monerris Mascaró Miriam
- 272 Candidatus '*Neohhrlichia mikurensis*' in Swedish rodents Andersson Martin
- 273 Survey on presence and potential pathogenicity of fungi flora isolated from animals and ticks reared under laboratory conditions DANESI PATRIZIA
- 274 Aggregated burden of *Amblyomma fuscum* (Acari: Ixodiidae) on *Thrichomys laurentius* (Rodentia: Echymidae), in northeastern Brazil Martins Aléssio Filipe
- 286 Molecular identification of blood meal sources in *Ornithodoros erraticus*, Portugal Núncio Maria Sofia
- 291 Preliminary data on tick-borne disease pathogens in migratory birds in Italy Toma Luciano
- 293 *Ixodes ricinus* and *Borrelia burgdorferi* s.l. at high altitudes in the Italian Appennines Tomassone Laura
- 294 Prevalence of Tick-Borne Encephalitis Virus in *Ixodes ricinus* collected in human foci in Alsace, France. Moutailler Sara
- 296 Tick bionomics in a natural park in Rome and detection of pathogens potentially transmitted Di Luca Marco
- 297 Occurrence of *Anaplasma phagocitophilum* in ticks and hosts in Slovakia Vichová Bronislava
- 300 *Borrelia spielmanii* and other tick-borne pathogens in ixodid ticks from Pianosa Island, Italy Tomassone Laura
- 302 Temporal and spatial changes in prevalence and genetic variability of *Borrelia burgdorferi* s.l. in Slovakia Derdakova Marketa
- 303 Emergence of Lyme borreliosis and *Ixodes ricinus* in northeastern Piedmont, Italy Pintore Maria Domenica
- 311 *Ixodes ricinus* transmitted pathogens and their potential host associations Honig Vaclav
- 317 Seasonal dynamic of the *Ixodes ricinus* ticks and its infection with the tick-borne pathogens in urban and suburban areas from eastern Slovakia Pangrácová Lucia
- 318 Ecological determinants of *Ixodes scapularis* host-seeking behavior: implications for Lyme disease risk Kuczaj Isis
- 322 Identification of microsatellites as genome markers in intergenic regions of *Babesia bovis* Schnittger Leonhard
- 333 Hemogregarines of reptiles from central Europe and South-East Africa Haklová Bo ena



# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 334 Parasite – host relationships among small mammals and ticks in lowland ecosystems of Central Europe. Michal Stanko
- 335 The Expansion of Ornate Dog Tick *Dermacentor reticulatus* in Central Europe – Some Possible Hypotheses? Petko Branislav
- 336 Ticks on birds from forestal phytophysiological conditions in the Brazilian Savannah of Triângulo Mineiro region, Minas Gerais Torga Khelma
- 337 Ticks and the city: ectoparasites and *Borrelia burgdorferi* s.l. infection of the Northern white-breasted hedgehog (*Erinaceus roumanicus*) in an urban park Foldvari Gabor
- 338 Ticks (Acari: Ixodidae) on swifts (Apodiformes: Apodidae) in Minas Gerais, Southeastern Brazil Tolesano-Pascoli Graziela
- 339 *Anaplasma phagocytophilum* seroprevalence of police horses and detection of primary infection in foals V.Bastos Camila
- 349 Impact of Temperature on Larval Blacklegged Tick Survival in the Southern United States Pang Genevieve
- 350 *Borrelia kurtenbachii* is widely distributed in southeastern United States Rudenko Nataliia
- 351 Detection of *Rickettsia belli* in the tick *Ornithodoros brasiliensis* Aragão (Acari: Argasidae) Garcia R amirez Diego
- 372 First European evidence of *Borrelia* DNA in liver and engorged *Ixodes ricinus* ticks removed from raccoon dogs (*Nyctereutes procyonoides*) in Poland, Wodecka Beata
- 373 *Bartonella* DNA in bats (Mammalia: Chiroptera) and their ectoparasitic spinturnicid mites (Acari: Spinturnicidae) Wodecka Beata
- 379 Isolation of entomopathogenic fungi from *Hyalomma lusitanicum* in Spain. Olmeda Garcia Sonia
- 386 Epidemiological and longitudinal study of *Rickettsia* spp and other tick-borne infections in dog shelters in Sicily (Italy). Capri Alessandra
- 399 Studies on tick infestation of wild ruminants and boars in Hungary Farkas Róbert
- 6 Molecular analysis of Crimean Congo Haemorrhagic Fever Virus in ticks of Hamadan province (West of Iran). Chinikar Sadegh
- 10 Genetic differentiation of *Ehrlichia canis* in humans, dogs and ticks from Sinaloa, Mexico Sosa Gutiérrez Carolina
- 41 Tick-borne encephalitis virus in ticks detached from humans in Sweden and Åland 2008-2009 Lindblom Pontus
- 86 *Borrelia* infected tick-bite and the human clinical outcome Wilhelmsson Peter
- 116 *Anaplasma phagocytophilum* multiplies in neutrophils by modulating some of their functions: ex vivo studies in sheep Woldehiwet Zerai
- 133 Comparison of the infection of different *Ixodes* spp tick cell lines with an alphavirus and a flavivirus Weisheit Sabine
- 140 Detection of *Rickettsia aeschlimanni* in *Hyalomma marginatum* ticks in Northern Italy Torina Alessandra
- 147 Resistance of *Ixodes persulcatus* ticks (Acari: Ixodidae) to desiccation depending on infection and heavy metal ions Alekseev Andrey
- 177 Risk of infection by *Borrelia burgdorferi* sensu lato after a tick bite in a Lyme borreliosis endemic area in Switzerland. Gern Lise
- 187 Viral and bacterial pathogen infection rates and co-infections in *Ixodes ricinus* adult ticks from North-eastern Italy Ravagnan Silvia
- 196 Visualisation of arbovirus replication in tick cell lines Rückert Claudia
- 224 Prevalence of Tick Born Encephalitis (TBE) in southern Poland\* Cuber Piotr
- 265 Clinical and serological outcome of Romanian patients after *Borrelia burgdorferi* infected *Ixodes ricinus* tick bite Briciu Violeta Tincuta
- 284 Ticks and tick-borne pathogens in the Colli Euganei natural park, North-eastern Italy Signorini Manuela
- 309 Distribution of vegetation ticks in Castilla – La Mancha, Spain Durán Mauricio





## Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.

- 330 Past, Present And Future Perspectives of Rickettsiosis in Colombia Hidalgo Marilyn
- 331 Molecular Identification and Phylogenetic Relationship of Rickettsia species in Ticks Recovered in Three Geographical Regions Of Colombia Ramírez Hernández Alejandro
- 342 TBEV can use a cap-independent way of translation initiation ern Ji f
- 347 Genotypic diversity of southeastern *Borrelia burgdorferi* sensu stricto: distribution of *OspC* gene in southeastern United States. Golovchenko Maryna
- 348 Molecular detection of *Anaplasma phagocytophilum* and *Borrelia burgdorferi* sensu lato in *Ixodes ricinus* ticks in natural and urban ecosystem (Czech Republic) Rudolf Ivo
- 394 Emergence of tick-borne bacterial pathogens in forest and city parks around the capital city of Bratislava, Slovakia Melni áková Jana
- 9 Detection of *Babesia ovis* by the PCR- RFLP in collected ticks from naturally infested small ruminants and related herd's dogs in North-West, Iran Tavassoli Mousa
- 15 PCR-based detection of *Babesia* spp. infection in collected ticks from cattle in West and North-West of Iran Tavassoli Mousa
- 20 Molecular detection of *Theileria* spp in sheep from southern area of Razavi Khorasan Province , Iran Razmi Gholamreza
- 21 Molecular detection of *Theileria* spp in ixodid ticks collected from sheep in southern area of Razavi Khorasan Province , Iran Razmi Gholamreza
- 24 Females ticks fed on immunized hosts. Action of *Rhipicephalus sanguineus* glandular extracts Furquim Karim
- 36 Attachment of two species of Ixodidae ticks on resistant rabbits. Analysis of feeding process. Nunes Pablo Henrique
- 38 Resistance in cattle tick *Rhipicephalus (Boophilus) microplus* to chemical acaricides in India Ray Debdata
- 39 Efficacy of rBm86 against Indian isolates of *Hyalomma anatolicum anatolicum* and *Rhipicephalus (Boophilus) microplus* in bovine calves. Ghosh Srikant
- 40 Effect of ethanolic extracts of plants on tick reproduction Ravindran Reghu
- 44 A Study On Ovine Tick-Borne Haemoprotozoan Parasites (*Theileria* and *Babesia*) In The East Black Sea Region of Turkey Altay Kursat
- 52 Multiple-locus variable-number tandem-repeat analysis of *Ehrlichia ruminantium* in *Amblyomma variegatum* collected at heartwater endemic areas in Uganda Nakao Ryo
- 55 The survey on prevalence of *Babesia ovis* in piranshahr, province of West-Azarbaijan, Iran Nematollahi Ahmad
- 56 Survey on Ixodidae tick population in domestic ruminants in East Azerbaijan, Iran Nematollahi Ahmad
- 63 Molecular and serological detection of *Babesia* spp. in Neotropical and exotic wild carnivores in Brazilian zoos André Marcos
- 64 Molecular detection of hemotrophic mycoplasmas in Neotropcial and exotic wild canids in Brazil André Marcos
- 77 Infection rate of sheep by *Hyalomma* genus (Ixodidae) in the Khorasan jounobi province, Iran. Edalat Hamideh
- 78 Infestation rate on Camel of ticks in Qom propvince Iran. Telmadarraiy Zakkyeh
- 80 A survey on ixodid tick species feeding on cattle and prevalence of tick-borne pathogens in Black Sea region of Turkey Aktas Munir
- 81 Molecular epidemiology of theileriosis and babesiosis in sheep and goats in the Black Sea region of Turkey Aktas Munir
- 91 Acaricidal effect of an experimental ixodicide against a susceptible strain of *Rhipicephalus (Boophilus) microplus* in cattle housed in pens Ibarra-Velarde Froylan
- 102 Effect of targeting subolesin on the tick infection by *Anaplasma marginale* and *Babesia bigemina* Merino Chavez José Octavio
- 105 Epidemiology of cattle ticks and tick-borne diseases in central Nigeria LorussoVincenzo

# Seventh Ticks and Tick-borne Pathogens International Conference. Provisional Program.



- 114 Ticks and Tick-Borne Pathogens in Brown Brocket Deer (*Mazama gouazoubira*) and Brazilian Marsh Deer (*Blastocercus dichotomus*) in the State of Minas Gerais, Brazil Angélica Gonçalves da Silveira Júlia
- 115 Molecular detection to intraerythrocytic hemoparasites in Pampas deer (*Ozotocercus bezoarticus*, Linnaeus 1766) in the State of Mato Grosso do Sul, Brazil Angélica Gonçalves da Silveira Júlia
- 137 Ehrlichia ruminantium map1 family gene transcriptional shift occurs rapidly on transfer from tick to mammalian cells in vitro Alberdi Pilar
- 167 Prevalence of Theileria equi and Babesia caballi in donkeys (*Equus asinus*) from Brazil Machado Rosangela
- 168 Antibodies to Anaplasmataceae agents and Chlamydomphila felis in wild captive felids in Brazil Pinto Aramis
- 172 Epidemiology of ticks and tick borne pathogens at the interplay of domestic and wild ruminants in South Africa Mirko Berggoetz
- 186 Whole genome next-generation sequencing reveals genome-wide nucleotide level polymorphisms in Theileria parva. Hayashida Kyoko
- 198 Light-weight draft equids seroprevalence os Anaplasma phagocytophilum in urban area of Minas Gerais, Brazil Gavião Prado Luan
- 203 Quantification of Theileria parva in Rhipicephalus appendiculatus (Acari: Ixodidae) confirm differences in infection between selected tick strains Odongo David
- 230 Seroprevalence of Babesia bigemania and Anaplasma marginale in Domesticated Animals in Erbil, Iraq Hamad Ameen Khalis Ahmed
- 261 Molecular Survey of Anaplasma ovis and Anaplasma phagocytophilum in Sheep and Goats in the East of Turkey Altay Kursat
- 306 Investigations on ecobiology of hard ticks (ixodid) relating to the presence of the tick-borne pathogens in some areas of three different countries around Caprivi area Pascucci Ilaria
- 313 Infection of Bovine aortic endothelial primary cells and Hybrid immortalized cells with Ehrlichia ruminantium: prospects for the development of a simple vaccine production process using a disposable validable bioreactor and its follow up with a Digit Werenne John
- 316 Identification of genes involved in pathogenicity of Ehrlichia ruminantium by a transcriptomic approach Vachery Nathalie
- 319 MLST scheme for Anaplasma marginale reveals pathogen strong adaptation to a very specific cell type Guillemi Eliana
- 321 Multilocus Sequence Typing for Characterization of Babesia bovis and Babesia bigemina strains Guillemi Eliana
- 328 Species composition and molecular investigation for piroplasm, Rickettsia spp. and Borrelia burgdorferi s.l. from ticks of ruminants in Bakko district, Western Oromia, Ethiopia Cassini Rudi
- 341 Phenotype changes inherited by crossing pyrethroid susceptible and resistant genotypes from the cattle tick Rhipicephalus microplus. Aguilar Tipacamú Gabriela
- 346 Cellular characterization of embryonic cells from the tick Amblyomma cajennense (Acari: Ixodidae) Cirelli-Moraes Angelina
- 352 Expression analysis of hap2; a novel, highly conserved Babesia bigemina gene Mosqueda Juan
- 360 Reservoir competence of gray catbirds and American robins for Anaplasma phagocytophilum Johnston Emily
- 377 Tick-borne pathogens in small rodents and marsupials from an Atlantic Rainforest perimeter in Southeast Brazil. Spolidorio Mariana
- 381 Tick-borne and Retrovirus infections associated with clinically anemic cats in Thailand, Jittapalpong Sathaporn