



VII International Potsdam Symposium on Tick-borne Diseases (IPS-VII) 2003

Scientific Programme Committee
Jochen Süß, Olaf Kahl, Peter Kimmig

Secretariat
Gabriele Restle, Susanne Schulze

Scientific Programme

Thursday, March 13, 2003

- 10.00 – 12.30** **Registration, mounting of posters**
- 12.30** **Opening**
Dr. Manfred Lückemeyer (Acting Director of the Federal Institute for Risk Assessment)
Dr. Carola Reimann (Member of the German Bundestag)
Dr. Jochen Süß (Conference Chair)
- IS THE INCIDENCE OF TICK-BORNE DISEASES ON THE INCREASE IN EUROPE?**
Moderators: Sarah Randolph and Olaf Kahl
- Oral presentations**
- 12.45 – 13.05** *S. Randolph (Oxford, UK):*
Evidence that climate change has caused 'emergence' of tick-borne diseases in Europe?
- 13.05 – 13.20** *R. Zell (Jena, Germany):*
Global climate changes and the emergence/reemergence of infectious diseases
- 13.20 – 13.35** *F. Strle (Ljubljana, Slovenia):*
Human granulocytic Ehrlichiosis (HGE) in Europe
- 13.35 - 13.50** **Discussion**
- 13.50 – 14.00** *A. Bormane, R. Ranka, A. Duks, I. Lucenko, K. Salmina (Riga, Latvia):*
Natural foci of tick-borne diseases (TBD) and epidemiological situation in Latvia during the last decade
- 14.00 – 14.10** *P. Zeman, C. Benes (Prague, Czech Republic):*
A TBE ceiling in Central Europe has moved upwards during the last 30 years: possible impact of global warming?
- 14.10 – 14.20** *M. Daniel, V. Danielova, B. Kriz (Prague, Czech Republic):*
An attempt to elucidate increased incidence of tick-borne encephalitis and shift to higher altitude in the Czech Republic
- 14.20 – 14.30** *B. Kriz, C. Benes, V. Danielova, M. Daniel (Prague, Czech Republic):*
Socio-economic conditions and other anthropogenic factors influencing tick-borne encephalitis incidence in the Czech Republic



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- 14.30 – 14.40** J. Süss, C. Schrader, N. Wohanka (Berlin, Passau, Germany):
Tick-borne encephalitis in Germany – Epidemiological data, development of risk areas and virus prevalence in engorged and unengorged ticks
- 14.40 – 15.05** **Discussion**
- 15.05 – 16.35** **Break and Poster Session**
Moderators: Peter Kimmig and Klaus-Peter Hunfeld
- 16.35 – 16.45** E. I. Korenberg (Moscow, Russia):
Problems in the study and prophylaxis of mixed infections transmitted by ixodid ticks
- 16.45 – 16.55** K. Hartelt, R. Oehme, H. Frank, S. Brockmann, P. Kimmig (Stuttgart, Germany):
Symbionts and pathogens in ticks: prevalence of *Wolbachia* sp., *Ehrlichia* sp., *Rickettsia* sp. and *Babesia* spp. in Germany
- 16.55 – 17.05** K.-P. Hunfeld, A. Lambert, H. Kampen, S. Albert, C. Epe, A. M. Tenter, V. Brade (Frankfurt, Bonn, Hannover, Germany):
Serologic evidence for *Babesia* infections in tick-infested humans in midwestern Germany
- 17.05 – 17.15** A. N. Alekseev, H. V. Dubinina, O. V. Jushkova (St. Petersburg, Russia):
First report on the compatibility of seven tick-borne pathogens in *Ixodes persulcatus* (Acarina, Ixodidae)
- 17.15 – 17.30** **Discussion**
- EPIDEMIOLOGY OF TICK-BORNE DISEASES**
Moderators: Milan Labuda and Franc Strle
- 17.30 – 17.40** I. Takashima, D. Hayasaka, T. Mizutani, H. Kariwa (Sapporo, Nagasaki, Japan):
Tick-borne encephalitis in Japan
- 17.40 – 17.50** S. Baptista, A. Quaresma, K. Kurtenbach, M. Nicholson, M. Collares-Pereira (Lisboa, Portugal):
Lyme Borreliosis spirochaetes in ticks from mainland Portugal
- 17.50 – 18.00** M. Zahler-Rinder, W. Beck, F. Krux, S. Geiger (Munich, Germany):
Biodiversity in canine babesiae: molecular and epidemiological investigations
- 18.00 – 18.15** **Discussion**
- TECHNICAL REMARKS**
- 18.45** **Bustransfer and further discussions in the Pub and Brewery “Alter Fritz” Berlin Tegel (close to the hotels Sorat and Borsigturm)**



Friday, March 14, 2003

09.30

Oral presentations

ECOLOGY OF TICK-BORNE DISEASES

Moderators: Jeremy Gray and Gerold Stanek

9.30 – 9.40

B. Pichon, D. Egan, M. Rogers, J. S. Gray (Dublin, Ireland):
Reservoir host identification by analysis of host-seeking ticks

9.40 – 9.50

G. Khanakah, E. Kocianova, V. Vyrostekova, J. Rehacek, M. Kundi, G. Stanek (Vienna, Austria; Bratislava, Slovakia):
Geographical and seasonal variation in detecting *Borrelia burgdorferi* sensu lato in rodents of north eastern Austria

9.50 – 10.00

K. Babb, R. L. Wattier, K. von Lackum, S. P. Riley, C. H. Gorham, J. McAlister, J. C. Miller, B. Stevenson (Lexington, Kentucky, USA):
Borrelia burgdorferi LuxS/AI-2-mediated quorum sensing

10.00 – 10.10

Discussion

Prophylaxis and vaccination

Moderators: Christian Kunz and Egon Marth

10.10 – 10.20

H. J. Ehrlich, B. G. Pavlova, S. Fritsch, E. M. Poellabauer, A. Loew-Baselli, F. Maritsch, F. Dorner, P. N. Barrett (Vienna, Austria; Kehl, Germany):
Randomized, phase II, multicenter dose-finding studies of a modified tick-borne encephalitis vaccine in children: Evaluation of safety and immunogenicity of two vaccinations with FSME-IMMUN® “new”

10.20 – 10.30

A. Loew-Baselli, S. Fritsch, B. G. Pavlova, E. M. Poellabauer, P. Harmacek, M. Krammer, F. Dorner, R. Konior, P. N. Barrett and H. J. Ehrlich for the FSME-IMMUN Adult Study Group (Vienna, Austria; Krakow, Poland):
Safety and immunogenicity of FSME-IMMUN® “new” vs. Encepur® in adults

10.30 – 10.40

J. Beran, R. Chlibek, P. Douda, D. Gniel, O. Zent (Hradec Kralove, Ceske-Budejovice, Czech Republik; Marburg, Germany):
Long-term immunity after vaccination against tick-borne encephalitis with ENCEPUR® using the rapid vaccination schedule

10.40 – 10.50

O. Zent, T. Schwarz, A. Plentz, A. Banzhoff, W. Jilg (Marburg, Würzburg, Regensburg, Germany):
TBE booster immunisation in adults - first experience with Chiron's new tick-borne encephalitis (TBE) vaccine

10.50 – 11.10

Discussion

11.10 – 11.40

Break

Moderators: Reinhard Wallich and Veera Vasilenko

11.40 – 11.50

E. Marth, B. Kleinhapfl, S. Jelovcan (Graz, Austria):
Stimulation of the immune system by different TBE-virus vaccines



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- 11.50 – 12.00** K. Zwiauer, S. Ertl (St. Pölten, Austria):
TBE-vaccine monitoring in Austria – results of a post-marketing sentinel project
- 12.00 – 12.10** M. Labuda, A. Trimnell, M. Ličková, M. Kazimírová, P.A. Nuttall (Bratislava, Slovakia; Oxford, United Kingdom):
An alternative to standard vaccination: Immunization with tick salivary antigens prevents tick-borne encephalitis virus infection of Balb/c mice
- 12.10 – 12.25** J. Tsao, B. Brei, D. Fish (New Haven, CT, USA):
Decreasing tick-borne disease risk in the US by intervening in the natural cycle: lessons from the woods thus far
- 12.25 – 12.40** R. Wallich, M. Simon (Freiburg, Heidelberg, Germany):
Lyme disease vaccine in the US and Europe: public and medial disputes discredit a well-founded and most successful protection strategy
- 12.40 – 12.50** K. Sonnenberg, M. Niedrig, K. Steinhagen, W. Meyer, W. Schlumberger, E. Müller-Kunert, W. Stöcker (Lübeck, Berlin, Germany):
State-of-the-art serological techniques for detection of antibodies against Tick-borne encephalitis virus
- 12.50 - 13.05** **Discussion**
- 13.05 – 14.45** **Lunch-Break and Poster Session**
- LYME BORRELIOSIS: IMMUNOLOGY, DIAGNOSTICS, AND THERAPY;
B. BURGENDORFERI S. L. STRAIN DIFFERENTIATION**
Moderators: Bettina Wilske and Volker Brade
- 14.45 – 14.55** P. Kraiczy, J. Hellwage, C. Skerka, M. Kirschfink, V. Brade, P. F. Zipfel, R. Wallich (Frankfurt, Jena, Heidelberg, Germany):
Immune evasion of *Borrelia burgdorferi*: expression of complement regulator-acquiring surface proteins contributes to complement resistance in the human host
- 14.55 – 15.05** U. Schulte-Spechtel, G. Lehnert, G. Liegl, V. Fingerle, C. Heimerl, B. Johnson, B. Wilske (Munich, Germany; Fort Collins, USA):
Significant improvement of the recombinant *Borrelia* IgG immunoblot for serodiagnosis of early neuroborreliosis
- 15.05 – 15.15** **Discussion**
- 15.15– 15.25** D. Hassler, M. Schnauffer, H. Ehrfeld, E. Müller (Heidelberg, Kraichtal, Karlsruhe, Germany):
Disappearance of specific immune response after successful therapy of chronic Lyme borreliosis
- 15.25 – 15.40** V. Fingerle, H. Michel, G. Hettche, C. Hizo-Teufel, B. Wilske (Munich, Germany):
Borrelia burgdorferi s. l. OspA-types are widely spread in Bavaria, but show distinct local patterns
- 15.40 – 15.50** **Discussion**



VII INTERNATIONAL POTSDAM SYMPOSIUM ON TICK-BORNE DISEASES (IPS-VII) 2003

OTHER TOPICS

Moderator: Hans Dautel

15.50 –16.00

T. J. Naucke, C. Schmitt (Bonn, Germany):
Is leishmaniasis becoming endemic in Germany?

16.00 –16.10

H. Dautel (Berlin, Germany):
Test systems for tick repellents

16.10- 16.20

Discussion

16.20

Final remarks and closing ceremony

Farewell reception



Poster sessions

IS THE INCIDENCE OF TICK-BORNE DISEASES ON THE INCREASE IN EUROPE?

- P 1** *G. Caruso (Belluno, Italy):*
TBE (Tick-borne encephalitis) in Italy
- P 2** *M. Daniel, B. Kriz, V. Danielova, J. Kolar (Prague, Czech Republic):*
Atlas of tick-borne encephalitis in the Czech Republic: predictive maps of high risk areas and tick-borne encephalitis cases distribution
- P 3** *G.N. Leonova, V.G. Borisevich, E.V. Pavlenko N.V. Kulakova, S.I. Belikov, D. Gniel (Vladivostok, Russia):*
Tick-borne encephalitis in the south of the Russian Far East
- P 4** *M. A. Rieger, M. Nübling, V. Fingerle, W. Wangerin, B. Wilske, F. Hofmann (Wuppertal, Freiburg, Munich, Germany):*
Human granulocytic ehrlichiosis – a biological hazard in forestry and agricultural workers in southwestern Germany?

EPIDEMIOLOGY OF TICK-BORNE DISEASES

- P 5** *E. Fedorov (Kharkiv, Ukraine):*
Tick-transmitted diseases in the Ukraine
- P 6** *O. N. Grishaeva, A. V. Popovsky, M. P. Grishaev, V. I. Ofitserov (Koltsovo, Novosibirsk region, Russia):*
Titration of *Borrelia burgdorferi* sensu lato in selected *Ixodes persulcatus* on the territory of western Siberia, Novosibirsk region
- P 7** *L. P. Kolchanova, T. F. Stepanova, V. N. Orlov, (Tyumen region, Russia):*
Tick-borne encephalitis and *Ixodes* tick-borne borrelioses mixed infection in the Tyumen region
- P 8** *K. Stepanova (Tyumen region, Russia):*
Mixed infections issue: Ixodid tick-borne borrelioses and opisthorchiasis in western Siberia
- P 9** *H. Vatandoost, A. Gkaderi, E. Javadian, A. H. Zahir Nia, Y. Rassi, N. Piazak, E. B. Kia, M. Shaeghi (Tehran, Iran):*
Distribution of soft ticks and their infection with *Borrelia* in the Hamadan province, Iran
- P 10** *R. Komitova, M. Murdjeva, E. Aleksandrov (Plovdiv, Sofia, Bulgaria):*
Dermacentor marginatus and erythema migrans

ECOLOGY OF TICK-BORNE DISEASES

- P 11** *A. Zore, T. Trilar, E. Ružič-Sabljić, T. Avšič-Županc (Ljubljana, Slovenia):*
Borrelia burgdorferi sensu lato isolated from engorged *Ixodes ricinus* ticks infesting birds in Slovenia



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- P 12** *A. Pawełczyk, M. Ogrzewalska, I. Zadrożna, E. Siński (Warsaw, Poland):*
The zoonotic reservoir for *Borrelia burgdorferi* sensu lato in the district of Mazury Lakes, the North East part of Poland
- P 13** *A. N. Alekseev (St. Petersburg, Russia):*
Alternation between spirochaete and cystic forms of the borreliosis agent may exist in humans and in the tick vector
- P 14** *V. V. Nefedova, E. I. Korenberg, N. B. Gorelova, Y. V. Kovalevskii (Moscow, Russia):*
Studies on the transovarial transmission of *Borrelia burgdorferi* sensu lato in the *Ixodes persulcatus* tick
- P 15** *S. Steuber, A. Abd El-Rady, P.-H. Clausen (Berlin, Germany):*
PCR-RFLP: A potential technique to identify blood meal donors in vector arthropods
- P 16** *S. Stuen, L. M. Schouls, I. van de Pol, M. Petrovec, T. Moum (Sandnes, Norway; Bilthoven, The Netherlands; Ljubljana, Slovenia):*
Genetic variants of *Anaplasma phagocytophilum* in sheep in Norway
- P 17** *N. V. Rudakov, S. N. Shpynov, I. E. Samoilenko, M. A. Tankibaev (Omsk, Karaganda, Russia):*
Ecology, epidemiology and genetics of spotted fever group rickettsiae and new data of their study in Russia and Kazakhstan

PROPHYLAXIS AND VACCINATION

- P 18** *H. J. Ehrlich, B. G. Pavlova, S. Fritsch, E. M. Poellabauer, A. Loew-Baselli, F. Maritsch, F. Dorner, P. N. Barrett (Vienna, Austria):*
Randomized, phase II dose-finding studies of a modified tick-borne encephalitis vaccine in adults: Evaluation of safety and immunogenicity of FSME-IMMUN® "new"
- P 19** *T. Yun, T. Batanova, L. Matveev, A. Ilyichev, N. Tikunova (Koltsovo, Russia):*
Cloning and sequencing of the V-regions of protective murine monoclonal antibodies against tick-borne encephalitis virus
- P 20** *T. Batanova, T. Yun, A. Ilyichev, N. Tikunova (Koltsovo, Novosibirsk region, Moscow, Russia):*
Human miniantibodies against tick-borne encephalitis virus
- P 21** *G. M. Ignatyev, A. V. Atrasheyskaya, M. S. Vorob'eva (Koltsovo, Novosibirsk region, Moscow, Russia):*
Cytokines activity upon experimental tick-borne encephalitis immunisation
- P 22** *E. P. Goncharova, L. E. Bulychev, V. D. Poryvaev, O. G. Piankova, O. N. Grishaeva, E. I. Ryabchikova, E. M. Malkova, A. B. Ryzhikov (Novosibirsk, Russia):*
Tick-borne encephalitis virus propagation into the brain after intraperitoneal challenge of mice



P 23 E. Maritz, H. Schmolck, I. Hellwig, R. Korinthenberg (Freiburg, Germany):
Neurological sequelae in children and adolescents after tick-borne encephalitis

P 24 L. Stjernberg, J. Berglund (Malmö, Karlskrona, Öland, Sweden):
The colour of clothes and tick attachment

LYME BORRELIOSIS: IMMUNOLOGY, DIAGNOSTICS, AND THERAPY

P 25 G. Göttner, U. Schulte-Spechtel, B. Wilske (Munich, Germany):
Analysis on the heterogeneity of the immunodominant surface protein VlsE among the three European genospecies of *Borrelia burgdorferi* sensu lato

P 26 H. Hofmann, I. Lorenz, E. Magyar, V. Helbl, H. Thüning-Nahler (Munich, Planegg, Germany):
Diagnostic value of a new C6 and C10-peptid ELISA for the serodiagnosis of early Lyme borreliosis - comparison to the European two step protocol

P 27 I. Müller, V. Brade, G. Stanek, E. Straube, H.-J. Hagedorn, C. Schörner, F. Mühlischlegel, K.-P. Hunfeld (Frankfurt, Jena, Germany; Vienna, Austria):
Diagnostic quality of Lyme disease serology: lessons from the German proficiency testing program established in 1999

P 28 P. Eissfeller, D. Wassenberg, B. Kraemer, C. Perchermeier, E. Soutschek (Martinsried, Germany):
Species-specific diagnosis of neuroborreliosis

P 29 K. E. Kisand, M. Utt, K. V. Kisand, R. Uibo, T. Prükk (Tartu, Estonia):
Serological description of Estonian patients with Lyme disease, the comparison with control sera from Estonians and Laplanders from North-Sweden

P 30 M. Kondrusik, S. Pancewicz, J. Zajkowska, S. Grygorczuk, R. Świerzbńska, T. Hermanowska-Szpakowicz (Białystok, Poland):
Chosen proinflammatory cytokines (TNF- α , interleukins L-6 and IL-8) release assay in the supernatant of neutrophils taken from patients with Lyme arthritis stimulated by antigens of three *Borrelia burgdorferi* strains

P 31 S. A. Pancewicz, J. M. Zajkowska, T. Hermanowska-Szpakowicz, M. Kondrusik, R. Świerzbńska (Białystok, Poland):
Concentration of IFN- γ , IL-6, IL-12 and IL-15 in serum of patients with Neuroborreliosis

P 32 S. A. Pancewicz, J. M. Zajkowska, T. Hermanowska-Szpakowicz, M. Kondrusik, R. Świerzbńska (Białystok, Poland):
Concentration of IFN- γ , IL-6, IL-12 and IL-15 in cerebrospinal fluid of patients with Neuroborreliosis

P 33 M. Leschnik, G. Kirtz, R. Skerlak, P. Ludwig (Vienna, Austria):
Cross-reactivity of leptospiral antibodies in *Borrelia* western blot in acute stage of leptospirosis in dogs but not in leptospiral vaccinated dogs

P 34 P. Kraiczy, S. Burg, C. Hanssen-Hübner, V. Brade, A. Schmidt, K.-P. Hunfeld (Frankfurt, Germany):
Variability of protein expression pattern in *Borrelia burgdorferi* cultivated at increasing concentrations of penicillin and doxycycline



- P 35** K.-P. Hunfeld, P. Kraiczy, T. A. Wichelhaus, R. Rödel, V. Brade (Frankfurt, Germany):
In vitro ketolides are more active than are macrolides and azalides against the spirochaete *Borrelia burgdorferi*
- P 36** J. M. Zajkowska, T. Hermanowska-Szpakowicz, A. Ustymowicz, E. Tarasów (Białystok, Poland):
Neuroborreliosis: Proton (1H) MR spectroscopy in 12 cases
- P 37** J. M. Zajkowska, T. Hermanowska-Szpakowicz, S. A. Pancewicz, M. Kondrusik, S. Grygorczuk (Białystok, Poland):
Acute encephalopathy in a patient with chronic cutaneous form of Lyme disease, acrodermatitis chronica -case study
- BORRELIA BURGDORFERI S.L. STRAIN DIFFERENTIATION**
- P 38** B. Steil, W. Dorn (Jena, Germany):
Co-infection in ticks in selected habitats in Thuringia/Germany
- P 39** C. Rauter, R. Oehme, I. Diterich, M. Engele, T. Hartung (Konstanz, Stuttgart, Germany):
Borrelia quantification and strain differentiation by a novel single-run real-time PCR
- P 40** S. A. Rudakova, N. V. Rudakov, N. K. Tokarevich, Yu. V. Andreychuk, V. N. Kulikov (Omsk, St. Petersburg, Russia):
The new data about genotyping of tick-borne borreliae in the Asian part of Russia
- P 41** M. S. Aires, M. S. Nuncio (Aguas de Moura, Portugal):
Borrelia burgdorferi sensu stricto in biological samples in Portugal
- P 42** E. Ružič-Sabljić, V. Maraspin, S. Lotrič-Furlan, M. Arnež, J. Cimperman, F. Strle (Ljubljana, Slovenia):
Comparison of plasmid profiles of *Borrelia burgdorferi* sensu lato strains
- P 43** L. Ciceroni, S. Ciarrocchi, A. Petrucca, G. Caruso, G. Bertiato, C. Zasio, A. Ciervo (Rome, Belluno, Italy):
Characterization of *Borrelia burgdorferi* sensu lato strains by pulsed-field gel electrophoresis and arbitrarily primed-PCR
- OTHER TOPICS**
- P 44** I. Uspensky (Jerusalem, Israel):
Human toxemia after attachment of *Ixodes redikorzevi* (Acari: Ixodidae) females in Israel
- P 45** A. Estrada-Peña (Zaragoza, Spain):
Recent changes in abiotic variables for the development of *Ixodes ricinus* in Europe
- P 46** O. Kahl, A. Marangoni, V. Sambri, O.B. Göbel, B. Hammer (Berlin, Germany; Bologna, Italy):
Risk of transmission of *Borrelia afzelii* and unknown field-collected borreliae from *Ixodes ricinus* nymphs to the host after incomplete vector tick feeding