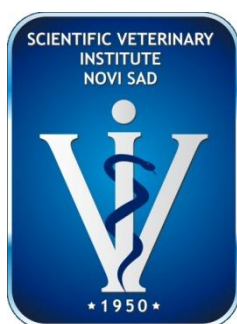


SCIENTIFIC VETERINARY INSTITUTE „NOVI SAD“
INSTITUTE OF VETERINARY MEDICINE OF SERBIA

„One Health – New Challenges“
**First International Symposium of
Veterinary Medicine
(ISVM2015)**



BOOK OF ABSTRACTS



**Hotel "Premier Aqua" - Vrdnik
May 21 – 23, 2015**

SCIENTIFIC VETERINARY INSTITUTE „NOVI SAD“
INSTITUTE OF VETERINARY MEDICINE OF SERBIA

„One Health – New Challenges“
**First International Symposium of
Veterinary Medicine
(ISVM2015)**

BOOK OF ABSTRACTS

Hotel "Premier Aqua" – Vrdnik

May 21 – 23, 2015

Publisher

Scientific Veterinary Institute „Novi Sad“, Novi Sad, Serbia

For the Publisher

Prof Dr Miroslav Ćirković, Principal Research Fellow

Editor in Chief

Dr Tamaš Petrović, Senior Research Associate

Technical Editor

Dr Tamaš Petrović, Senior Research Associate

Printed

Multidizajn, Novi Sad

150 copies

ISBN: ISBN 978-86-82871-37-8

ORGANISERS

SCIENTIFIC VETERINARY INSTITUTE „NOVI SAD“
and
INSTITUTE OF VETERINARY MEDICINE OF SERBIA

CO-ORGANISERS and SUPPORTERS

MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGICAL DEVELOPMENT
PROVINCIAL SECRETARIAT FOR SCIENCE AND TECHNOLOGICAL
DEVELOPMENT
MINISTRY OF AGRICULTURE AND ENVIRONMENTAL PROTECTION

ORGANIZING COMMITTEE

Dr Miroslav Ćirković, Principal Research Fellow - President

Dr Dobrila Jakić-Dimić, Principal Research Fellow	Dr Vladimir Polaček, Research Associate
Dr Branka Vidić, Principal Research Fellow	Dr Jadranka Žutić, Research Associate
Dr Sava Lazić, Principal Research Fellow	Dr Milica Živkov-Baloš, Senior Research Associate
Dr Tamaš Petrović, Senior Research Associate	Dr Jelena Petrović, Senior Research Associate
Dr Vladimir Radosavljević, Research Associate	Dr Dragana Ljubojević, Research Associate
Dr Sara Savić, Research Associate	Petar Bakmaz, secretary of Organizing Committee

TECHNICAL SECRETARIAT

Jelena Babić, DVM, MSc, Research Assistant
Biljana Božin, DVM, MSc, Research Trainee
Nikola Bakmaz, Secretary
Dobrisav Vuković, IT engineer
Vera Prokić, librarian

SCIENTIFIC COMMITTEE

Dr Tamaš Petrović, Senior Research Associate – President (Serbia)

- | | |
|--|--|
| Dr Miroslav Ćirković, Principal Research Fellow (Serbia) | Dr Dubravka Milanov, Senior Research Associate (Serbia) |
| Dr Dobrila Jakić-Dimić, Principal Research Fellow (Serbia) | Dr Tania Hubenova, professor (Bulgaria) |
| Dr Theresa Bernardo, Principal Research Fellow (USA) | Dr Igor Stojanov, Senior Research Associate (Serbia) |
| Dr Branka Vidić, Principal Research Fellow (Serbia) | Dr Sara Savić, Research Associate (Serbia) |
| Dr Tamaš Bakonyi, Principal Research Fellow (Hungary) | Dr Dejan Bugarski, Research Associate (Serbia) |
| Dr Sava Lazić, Principal Research Fellow (Serbia) | Dr Vladimir Polaček, Research Associate (Serbia) |
| Dr Dušan Orlić, Principal Research Fellow (Serbia) | Dr Marjana Todorčević, Postdoc. Research Assistant (UK) |
| Dr Juan Carlos Saiz, Principal Research Fellow (Spain) | Dr Jadranka Žutić, Research Associate (Serbia) |
| Dr Ivan Pavlović, Principal Research Fellow (Serbia) | Dr Miroslav Urošević, Research Associate (Serbia) |
| Dr Vladimir Radosavljević, Research Associate (Serbia) | Dr Jasna Prodanov Radulović, Research Associate (Serbia) |
| Dr Aleksandar Mašić, Adjunct professor (Canada) | Dr Petr Kralik, Research Associate (Czech Republic) |
| Dr Stanko Boboš, professor (Serbia) | Dr Dragana Dimitrijević, PhD (Serbia) |
| Dr Maja Velhner, Principal Research Fellow (Serbia) | Dr Bojana Grgić, MSc (Serbia) |
| Dr Aymeric Hans, Senior Research Associate (France) | Dr Milovan Jovičin, Research Associate (Serbia) |
| Dr Vesna Milošević, professor (Serbia) | Dr Radomir Ratajac, Research Associate (Serbia) |
| Dr Dušan Lalošević, professor (Serbia) | Dr Dragana Ljubojević, Research Associate (Serbia) |
| Dr Ivan Bogut, professor (Croatia) | Dr Živoslav Grgić, Research Associate (Serbia) |
| Dr Milica Živkov-Baloš, Senior Research Associate (Serbia) | Dr Diana Lupulović, Research Associate (Serbia) |
| Dr Miloš Kapetanov, Principal Research Fellow (Serbia) | Dr Aleksandar Milovanović, Research Associate (Serbia) |
| Dr. Corinna Kehrenberg, professor (Germany) | Dr Željko Mihaljev, Research Associate (Serbia) |
| Dr Slavica Košarčić, Principal Research Fellow (Serbia) | Dr Danka Maslić-Strizak, Research Associate (Serbia) |
| Dr Jelena Petrović, Senior Research Associate (Serbia) | Dr Dragica Vojinović, Research Associate (Serbia) |
| Dr Vladimir Savić, Senior Research Associate (Croatia) | Dr Ksenija Nešić, Research Associate (Serbia) |
| Dr Ivana Hrnjaković-Cevtković, professor (Serbia) | Dr Živka Ilić, Research Associate (Serbia) |
| Dr Sandra Stefan-Mikić, professor (Serbia) | Dr Božidar Savić, Research Associate (Serbia) |
| Dr Snežana Ivanović, Principal Research Fellow (Serbia) | Dr Branislav Kureljušić, Research Associate (Serbia) |
| Dr Nataša Golić, Principal Research Fellow (Serbia) | Dr Sandra Jakšić, Research Associate (Serbia) |

HONORARY COMMITTEE:

Dr Srđan Verbić, prof dr Snežana Bogosavljević Bošković, prof dr Zoran Mašić, Vladimir Pavlov, Branislav Bogaroški, prof dr Dragan Glamočić, prof dr Vlada Teodorović, prof dr Radovan Pejanović, prof dr Milan Popović, prof dr Zora Mijačević, prof dr Brana Radenković Damjanović, prof dr Nikola Grujić, prim dr Dragan Ilić, doc dr Vladimir Petrović, prof dr Dine Mitrov, prof dr Nihad Fejzić, doc dr Boris Habrun, prof dr Željko Cvetnić, prof dr Andrej Kirbiš, prof dr Tadej Malovrh, prof dr Boris Stegny, prof dr Paul Pirsan, prof dr Gheorghe Darabus, dr Teodor Dujin, dr Radovan Pavlović, dr Ivana Kovinčić, dr Marijana Galić, dr Ksenija Stevanović, dr Milan Šurjanović, dr Mira Velhner, dr Dragan Milićević, Petar Matijević, prof dr Dragan Šefer, dr Aleksandar Lončarević, dr Milenko Žutić, dr Vojin Ivetić, dr Snežana Janković, dr Vesna Đorđević, dr Jovanka Lević.

DETECTION OF *L. INTERROGANS* SEROVAR *HARDJO* IN EXPERIMENTALY SUB CUTANEUS INFECTED RABBITS BY DIFERENT DIAGNOSTICAL METHODS

Živoslav Grgić^{1*}, Branka Vidić¹, Sara Savić¹, Diana Lupulović¹, Ivan Pušić¹

1. Scientific Veterinary Institute “Novi Sad”, Novi Sad, Serbia

* Corresponding author: grgic@niv.ns.ac.rs

Summary

Infection caused by *L. interrogans* serovar *hardjo* is still very important for both veterinary and human medicine. The aim of this examination was to compare different laboratory methods and evaluate their accuracy. In this experiment eleven rabbits were artificially infected with live culture of *L. interrogans* serovar *hardjo* by sub cutaneous application (S/C). The blood and sera samples were taken from the 1st to the 21st day post infection (PI), every second day, and after that once a week during the following 5 weeks. The sera were examined for the presence of specific antibodies against *L. interrogans* serovar *hardjo* using the methods of microscopic agglutination (MA) and ELISA. The blood samples were examined by the method of cultivation. Identification of *L. interrogans* serovar *hardjo* genome was performed by polymerase chain reaction (PCR). A pair of primers, separated from the basic structure of *Leptospira interrogans* rrs (16S) was used. In total, specific antibodies against *L. interrogans* serovar *hardjo* were detected by MA in 118 sera samples (63.1%) of 187 tested. The first positive finding of specific antibodies was recorded on day 5 PI and remained detectable until day 56 PI. In ELISA, 91 (48.66%) samples reacted positive and 30 (16.04%) samples were suspected. In this test the earliest positive results were recorded on day 9 and the number of positive findings increased and reached its maximum on day 42. From the total number of 187 blood samples, *L. interrogans* serovar *hardjo* was isolated in 31 (16.57%) samples. The first positive result was registered on day 7, and the largest number of isolates was recorded on day 15 PI. PCR positive *L. interrogans* serovar *hardjo* result was detected in 60 (50.42%) samples out 119. *Leptospira* genome was detected earliest on day 7, and the highest percentage of positive findings was recorded between 15 and 19 days PI. When cultivation and PCR methods were compared up to 21 days PI for the period from infection until the application of dihydrostreptomycin a high level of linear correlation ($r = 0.810$) at the significance 0.01 was detected. After dihydrostreptomycin was administered 21 days upon infection, by the method of cultivation *L. interrogans* serovar *hardjo* was not isolated from the blood samples of rabbits. However, using PCR method *L. interrogans* serovar *hardjo* was detected in 29 samples.

Keywords: Leptospirosis, diagnostic methods, *L. interrogans* serovar *hardjo*

Acknowledgements: This work was supported by the Ministry of Education, Science and Technological Development, Republic of Serbia, Project number TR31084