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CURRICULUM VITAE

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PERMANENT ADDRESS

Slovinska 20, 101 00, Prague 10, Czech Republic

DATE AND PLACE OF BIRTH

January 5, 1975 Ostrava, Czech Republic

MARITAL STATUS

Married (wife Iveta), one child (Štěpán)

PROFESIONAL EXPERIENCE

- 2003-2005 French Research Council (CNRS) Post-Doctoral Fellowship, Unité d'Ecologie, Systématique & Evolution, Orsay, France (Drs. P. Lopéz-Garcia, D. Moreira)
- 2001-2003 Fogarty International Fellowship, National Institute of Health at Wadsworth Center, New York State Department of Health, Albany, New York, USA (Dr. J. Keithly)
- 1999-2001 Laboratory of Molecular Parasitology, Institute of Parasitology, Academy of Sciences Czech Republic, České Budějovice (Dr. J. Lukeš)
- 1995-2001 Department of Parasitology, University of Veterinary and Pharmaceutical Sciences, Brno (Drs. B. Koudela, D. Modrý)

EDUCATION

- 1999-2002 Ph.D. in Parasitology - Department of Parasitology, University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic
- 1993-1999 MVDr. (Doctor of Veterinary Medicine) - University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic
- 1993 final exams at the secondary grammar school in Prague, Czech Republic

RESEARCH INTERESTS

Molecular and biochemical biology of apicomplexan parasites as tools in the control of parasitic diseases.
Host-parasite differences in biochemical pathways for the development of novel antiparasitics.

AWARDS

Award of the Ministry of Education, Youth and Sports of the Czech Republic for excellent students and university graduates, November 17, 2002 (*Ministry of Education, Youth and Sports of the Czech Republic*)

University scientific competition, Dean of the Faculty of Veterinary Medicine & Pfizer - 1th prize 1997-1998 (*University of Veterinary and Pharmaceutical Sciences in Brno, Czech Republic*)

Scientific award by *The Foundation of Josef, Marie and Zdeňka Hlávka* (1998-2001)

RESEARCH SUPPORT:

„Scholarship for Workshop on Molecular Evolution – MBL Financial Aid“ (Marine Biological Laboratories, MA, USA)	300 USD	(2004)
“Travel aid – Gordon Research Conference on Marine Microbes” (Gordon Research Conference at Roscoff, France)	645 USD	(2004)
Post-Doctoral Fellowship, French Research Council – CNRS (Dr.P. Lopéz-Garcia, Orsay, France)	-	(2003-2005)
Award of the Ministry of Education, Youth and Sports of the Czech Republic for excellent students and university graduates, November 17, 2002 (<i>Ministry of Education, Youth and Sports, Czech Republic</i>)	10.000 CZK	(2002)
Fogarty International Fellowship, National Institute of Health at Wadsworth Center (Dr. J. Keithly, Albany, NY, USA)	10.000 USD	(2001-2003)
„rRNA in identification of phylogenetic position of coccidia of the genus <i>Sarcocystis</i> “ (Ministry of Education, Youth and Sports, Czech Republic; Grant No. G31268)	97.000 CZK	(2001)
Scientific award by <i>The Foundation of Josef, Marie and Zdeňka Hlávka</i>	30.000 CZK	(1998-2001)
University scientific competition, 1 th prize 1997-1998, (<i>University of Veterinary and Pharmaceutical Sciences in Brno, Czech Republic & Pfizer</i>)	2.000 USD	(1997, 1998)

PRESENTATIONS AT INTERNATIONAL CONFERENCES

Šlapeta J., Moreira D., López-García P.: Molecular evidence for picoplankton diversity viewed from protein coding and non-coding DNA. *ASLO 2005 - Santiago de Compostela*, Spain (2005 poster presentation)

Šlapeta J., Moreira D., López-García P.: Eukaryotic diversity in oxic and oxygen-depleted freshwater environments. *Gordon Research Conference Series: MARINE MICROBES – PICOPHYTOPLANKTON, FROM ECOLOGY TO GENOMICS*, Roscoff, Brittany, France (2004 –

poster presentation)

Šlapeta J., Keithly J.: *Cryptosporidium parvum* possesses and expresses a Proteobacterial-like DnaK homolog. *International Workshops on Opportunistic Protists & The International Conference on Anaerobic Protists (IWOP-8/ICAP)*, Hilo, Hawaii, USA (2003 – oral presentation)

Šlapeta J., Stejskal F., Keithly J.: Characterisation of S-Adenosylmethionine synthetase in *Cryptosporidium parvum*. *Molecular Parasitology Meeting XIII, Woods Hole, MA, USA* (2002 – poster presentation).

Šlapeta J., Stejskal F., Keithly J.: *Cryptosporidium parvum* S-Adenosylmethionine synthetase (CpSAMS): activity of recombinant CpSAMS and differential expression during intracellular growth in HCT-8 cells using semi-quantitative RT-PCR. *5th COST B9 Congress, Antiprotozoal Chemotherapy, London, UK* (2002 – poster presentation).

Šlapeta J.R., Modrý D., Votýpka J., Jirků M., Richardson A., Koudela B., Lukeš J. Advances in Molecular Phylogeny of Coccidia (Apicomplexa) Inferred from Ribosomal RNA Sequences. VIIIth International Coccidiosis Conference, Cairns, Australia. (2001 – oral presentation).

Šlapeta J.R., Modrý D., Votýpka J., Jirků J., Lukeš J., Koudela B. Biology, Pathology and Evolution of Coccidia of the Genus *Sarcocystis* (Coccidia: Apicomplexa) in African Viperids. VIIIth International Coccidiosis Conference, Cairns, Australia. (2001 – oral presentation).

Modrý D., Šlapeta J.R., Jirků M., Oborník M., Lukeš J., Koudela B.: Phylogenetic position of a renal coccidium of the European green frogs, “*Isospora*” *lieberkuehni* Labbé, 1894 (Apicomplexa: Sarcocystidae). *International Society for Evolutionary Protistology XIIIth Meeting, České Budějovice, Czech Republic* (2000 – poster presentation).

Šlapeta J.R., Modrý D., Hořejš R., J. Votýpka J., Koudela B.: Molecular tools for differential diagnosis of *Neospora caninum* / *Hammondia heydorni* oocyst. *Czech and Slovak Parasitology Days, Czech Society of Parasitologists, Srní, Czech Republic* (2000 – oral presentation).

LECTURES AND SEMINARS PRESENTED

Are small eukaryotes ubiquitous? An answer from the multilocus genotyping of the model marine picoeukaryote *Micromonas pusilla* – presented at Roscoff Biological Station, Roscoff, France, 2005

Freshwater protist diversity and marine picoeukaryote biogeography – presented at Unité d'Ecologie, Systématique & Evolution, Université Paris-Sud, Orsay, France, 2004

Cryptosporidium parvum possesses and expresses a proteobacterial-like DnaK homolog – presented at Wadsworth Center (breakfast club & lower eukaryotes meeting), New York State Department of Health, Albany NY, USA, 2003

Parasitic protists of the genus *Sarcocystis* (Apicomplexa, Alveolata): phylogeny, life cycles, diversity and diagnosis – presented at Wadsworth Center (breakfast club), New York State Department of Health, Albany NY, USA, 2002

Updated View on Molecular Phylogeny of Coccidia – presented as a seminar at Academy of Sciences Czech Republic, České Budějovice, Czech Republic 2001

SPECIALIZED WORKSHOP TRAINING

Workshop on Molecular Evolution, Marine Biological Laboratory, Woods Hole, ME, USA, July 25 – August 6, 2004.

EXPERIENCE

Molecular & biochemical parasitology:

DNA extraction, PCR, cloning, sequencing, southern blotting; RNA extraction, RT-PCR, radioactive RT-PCR; protein manipulations, enzyme kinetics; RFLP, multilocus genotyping; environmental library screening using 96-well plate platform; protein expression and affinity purification (His-tag, pMal systems) in *E. coli* strains and *S.*, antibody preparation and purification, western blotting, immunolocalization, GFP applications in *S. cerevisiae* and *Toxoplasma gondii*.

Parasitology:

Experimental host infections (mammalian models: mice, gerbils, dogs); examination of clinical samples (morphology, PCR), light/ phase/ DIC/ immunofluorescence microscopy; cultivation of *Cryptosporidium parvum* in HTC-8 cells and *Toxoplasma gondii* in HFF cells; line drawing of protozoan parasites.

Bioinformatics:

DNA - protein sequence analyses GCG, DNASTar, BioEdit; phylogenetic analysis: PAUP*, PHYLIP, MEGA, MrBAYES, PAML; knowledge of BLAST; basic knowledge of HTML and PERL language for custom operations under UNIX, Mac or Windows.

Veterinary Medicine:

State approved exams (Faculty of Veterinary Medicine, University of Veterinary and Pharmaceutical Sciences, Czech Republic) from small animal and horse internal medicine and surgery, obstetrics, general epidemiology and hygiene. Approved to practice general veterinary medicine (Czech Republic).

Memberships in professional organisations:

Czech Society of Parasitology, Section of Protozoology, Czech Republic: Member from 1998, Acting secretary of Section of Protozoology (2001), Secretary of Section of Protozoology (2002-2003).

American Society for Microbiology, Eastern New York Region: Member in 2003.

PROFESIONAL RESPONSIBILITIES

Malaria Workshop: A Closer Look, Wadsworth Center New York State Department of Health, Albany – teaching assistant (2003)

32. *Jirovec Protozoology Days (32. Jírovcovy protozoologické dny)*, Section of Protozoology, Czech Society of Parasitology, Kunín, 8.-12. dubna 2002, Czech Republic – organizer, <http://mujweb.cz/www/iroger/PD2002/>

Clinical Parasitology of Exotic and Pet Animals (Klinická parazitologie zvířat chovaných ze záliby) Faculty of Veterinary Medicine, University of Veterinary and Pharmaceutical Sciences Brno, 1 semester course – teaching assistant & lecturer (1998-2001)

Veterinary Parasitology (Cvičení z veterinární parazitologie), Faculty of Veterinary Medicine, University of Veterinary and Pharmaceutical Sciences Brno, 2 semester course – teaching assistant (1999-2001)

Doctoral conference (Konference studentů doktorského studijního programu), Faculty of Veterinary Medicine, University of Veterinary and Pharmaceutical Sciences Brno, November 9, 2000 – organizer, <http://mujweb.cz/www/iroger/konference/>

PEER-REVIEWED PUBLICATIONS

- Šlapeta J, Moreira D., Lopez-Garcia P (2005). Global dispersal and ancient cryptic species in the smallest marine eukaryotes. Molecular Biology and Evolution (accepted)
- Šlapeta J, Moreira D., Lopez-Garcia P (2005). The extent of protist diversity: insights from molecular ecology of freshwater eukaryotes. Proceedings of the Royal Society B: Biological Sciences (in press)
- Modrý D, Šlapeta JR, Koudela B. (2005). Mice serve as paratenic hosts for the transmission of *Caryospora duszynskii* (Apicomplexa: Eimeriidae) between snakes of the genus *Elaphe*. Folia Parasitologica (in press)
- Šlapeta J, Keithly JS. (2004). *Cryptosporidium parvum* mitochondrial-type HSP70 targets homologous and heterologous mitochondria. Eukaryotic Cell 3(2): 483-494.
- Hajdušek O, Ditrich O, Šlapeta J. (2004). Molecular identification of *Cryptosporidium* spp. in animal and human hosts from the Czech Republic. Veterinary Parasitology 122(3), 183-192.
- Stejskal F, Šlapeta J, Ctrnacta V, Keithly JS (2003). *Narf*-like gene from *Cryptosporidium parvum* resembles homologues of higher eukaryotes. FEMS Microbiol. Lett. 229(1): 91-96.
- Šlapeta J, Stejskal F, Keithly JS. (2003) Characterization of *S*-adenosylmethionene synthetase in *Cryptosporidium parvum* (Apicomplexa). FEMS Microbiol. Lett. 225(2): 271-277.
- Šlapeta JR, Modrý D, Votýpka J, Jirků M, Lukeš J, Koudela B. (2003). Evolutionary relationships among cyst-forming coccidia *Sarcocystis* spp. (Alveolata: Apicomplexa: Coccidea) in endemic African tree vipers and perspective for evolution of heteroxenous life cycle. Molecular Phylogenetics and Evolution 27(3): 464-475.
- Šlapeta JR, Modrý D, Ashe J, Koudela B. (2003). Description of *Eimeria arabukosokokensis* sp. n. (Apicomplexa: Eimeriidae) from *Telescopus semiannulatus* (Serpentes: Colubridae) with notes on eimerian coccidia from snakes of Eastern Kenya. Folia Parasitologica 50: 21-28.
- Jirků M, Modrý D, Šlapeta JR, Koudela B, Lukeš J. (2002). The phylogeny of *Goussia* and *Choleoeimeria* (Apicomplexa; Eimeriorina) and the evolution of excystation structures in coccidia. Protist 153(4): 379-390.
- Šlapeta JR, Modrý D, Kyselová I, Hořejš R, Lukeš J, Koudela B. (2002). Dog shedding oocysts of *Neospora caninum*: PCR diagnosis and molecular phylogenetic approach. Veterinary Parasitology 109(3-4): 157-167.
- Šlapeta J (2002). Biology, pathology and evolution of coccidia of the genus *Sarcocystis* in African viperids. Ph.D. thesis, VFU Brno, Czech Republic. ISBN 80-7305-444-2.
- Šlapeta JR, Kyselová I, Richardson AO, Modrý D, Lukeš J. (2002). Phylogeny and sequence variability of the *Sarcocystis singaporensis* Zaman and Colley, (1975) 1976 *ssrDNA*. Parasitology Research 88: 810-815.
- Šlapeta JR, Koudela B, Votýpka J, Modrý D, Hořejš R, Lukeš J. (2002). Coprodiagnosis of *Hammondia heydorni* in Dogs by PCR Based on ITS 1 rRNA: Differentiation from morphologically indistinguishable oocysts of *Neospora caninum*. The Veterinary Journal 163(2):147-154.
- Oborník M, Jirků M, Šlapeta JR, Modrý D, Koudela B, Lukeš J. (2002). Notes on coccidian phylogeny, based on the apicoplast small subunit ribosomal DNA. Parasitology Research 88:360-363
- Oborník M, Van de Peer Y, Hypša V, Frickey T, Šlapeta J, Meyer A, Lukeš J. (2002). Phylogenetic analyses suggest lateral gene transfer from mitochondrion to the apicoplast. Gene 285:109-118
- Modrý D, Šlapeta JR, Koudela B. (2002). *Caryospora matatu* sp. n., a new coccidian parasite (Apicomplexa: Eimeriidae) from the Horned bush-viper, *Atheris ceratophorus* Werner, 1895 from Tanzania. Parasite 9(4): 341-344.

- Šlapeta JR**, Modrý D, Votýpka J, Jirků M, Koudela B, Lukeš J. (2001). Multiple origin of the dihomoxenous life cycle in sarcosporidia. International Journal for Parasitology 31: 413-417.
- Modrý D, **Šlapeta JR**, Jirků M, Oborník M, Lukeš J, Koudela B (2001). Phylogenetic position of a renal coccidium of the European green frogs, “*Isohora*” *lieberkuehni* Labbé, 1894 (Apicomplexa: Sarcocystidae) and the taxonomic implications. International Journal for Systematic and Evolutionary Microbiology 51: 767-772.
- Šlapeta JR**, Modrý D, Votýpka J, Jirků M, Oborník M, Lukeš J, Koudela B (2001). *Eimeria telekii* n.sp. (Apicomplexa: Coccidia) from *Lemniscomys striatus* (Rodentia: Muridae): morphology, pathology and phylogeny. Parasitology 122: 133-143.
- Šlapeta JR**, Modrý D, Koudela B (2001): New species of coccidia (Apicomplexa: Eimeriidae) from rodents of Ruwenzori Mountains in Uganda. African Zoology 36: 41-44.
- Modrý D, **Šlapeta JR**, Knotek Z, Koudela B (2001). *Caryospora varaniornati* sp. n. (Apicomplexa: Eimeriidae) in the Nile Monitor, *Varanus (Polydaedalus) niloticus* species complex. Folia Parasitologica 48: 7-10.
- Modrý D, **Šlapeta JR**, Koudela B. (2001). *Eimeria hajeki* n. sp. (Apicomplexa: Eimeriidae), a new coccidian parasite of the pygmy chameleon, *Rampholeon temporalis* (Matschie, 1892) (Reptilia: Chamaeleonidae) from Usambara Mts., Tanzania. Journal of Parasitology 87(5):1104-1105.
- Modrý D, Václavěk P, Koudela B, **Šlapeta JR** (2001) Placentophagia – an alternative way for horizontal transmission of *Neospora caninum* in cattle? Trends in Parasitology 17: 573.
- Modrý, D., **Šlapeta, J.**, Koudela, B. 2000: Six new species of coccidia (Apicomplexa: Eimeriidae) from East African chameleons (Sauria: Chamaeleonidae). Journal of Parasitology 86(2): 373–379.
- Torres J, Modrý D, Fernández J, **Šlapeta JR**, Koudela B (2000). *Isohora lutrae* n. sp. (Apicomplexa: Eimeriidae), a new coccidium from the European otter *Lutra lutra* (L.) (Carnivora: Mustelidae) from Spain. Systematic Parasitology 47(1): 59-63.
- Koudela B, Modrý D, Volf J, **Šlapeta JR** (2000). SCID mice as a tool for evaluation of heteroxenous life cycle pattern of *Caryospora* (Apicomplexa, Eimeridae) species. Veterinary Parasitology 92: 191–198.
- Modrý D, **Šlapeta JR**, Koudela B (2000). *Sarcocystis stenodactylicolubris* n. sp., a new sarcosporidian coccidium with a snake-gecko heteroxenous life cycle. Parasite 7: 201-207.
- Hůrková L, Modrý D, Koudela B, **Šlapeta JR** (2000). Description of *Eimeria motelo* sp. n. (Apicomplexa: Eimeriidae) from the Yellow Footed tortoise, *Geochelone denticulata* (Chelonia: Testudinidae), and replacement of *Eimeria carinii* Lainson, Costa, and Shaw, 1990 by *Eimeria lainsoni* nom. nov. Memórias do Instituto Oswaldo Cruz. 95: 829-832.
- Doležel D, Koudela B, Jirků M, Hypša V, Oborník M, Votýpka J, Modrý D, **Šlapeta JR**, Lukeš J (1999). Phylogenetic analysis of *Sarcocystis* sp. and *Sarcocystis dispersa* supports the coevolution of sarcocysts with the final hosts. International Journal for Parasitology 29: 795–798.
- Šlapeta JR**, Modrý D, Koudela B (1999). *Sarcocystis atheridis* n. sp., a new sarcosporidian coccidium from the Nitsche’s Bush Viper, *Atheris nitschei* Tornier, 1902 from Uganda. Parasitology Research 85: 758–764.
- Volf J, Modrý D, Koudela B, **Šlapeta JR** (1999). Discovery of the life cycle of *Sarcocystis lacertae* Babudieri, 1932 (Apicomplexa: Sarcocystidae), with a species redescription. Folia Parasitologica 46: 257–262.
- Modrý D, Koudela B, **Šlapeta J** (1998). *Isohora abdallahi* sp. n. (Apicomplexa: Eimeriidae), a new coccidium from the lacertid lizard *Acanthodactylus boskianus* (Sauria: Lacertidae) from Northern Egypt. Folia Parasitologica 45: 14-16.