

CURRICULUM VITAE

Veronika Michalková, Ph.D.

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EDUCATION

Ph.D. in Entomology; Masaryk University, Brno, Czech Republic 2009
Mgr. in Ecology; Comenius University, Bratislava, Slovakia 2004
Bc. in Biology; Comenius University, Bratislava, Slovakia 2002

RESEARCH EXPERIENCE

Postdoctoral Associate in Yale University, New Haven, USA 2011-2014
Dr. Serap Aksoy lab, 2.5 year
reproductive physiology in Glossinidae

Visiting Research Scientist in Yale University, New Haven, USA 2011
Dr. Serap Aksoy lab, 0.5 year
reproductive physiology in Glossinidae

Research Scientist in Institute of Zoology, Slovak Academy of Sciences 2009-present
reproductive physiology, biocontrol

Research Specialist in Faculty of Science, Masaryk University, Brno 2005-2009
host-parasitoid interactions, biocontrol

SHORT STUDY STAYS

2015, March 15 - 21. Workshop on Comparative Genome Annotation of Major Tsetse Fly Species, From Genomes to Functions: Analyzing the Glossina genome cluster, BRI, Muguga, Kenya

2009, September 21. - October 3. Postdoctoral fellowship in Muséum National d'Histoire Naturelle Paris, Station Biologique de Roscoff and Station Marine de Dinard, France (*study of lower apicomplexans from marine invertebrate hosts*)

2006, October 23. - 30. Doctoral study stay in Dipartimento di Scienze e Tecnologie Agroambientali, Università di Bologna, Italy (*experimental methods in entomology, insect rearing techniques*)

TEACHING EXPERIENCE

Teaching Assistant

Entomology courses, Masaryk University, Brno 2005-2007
Field courses, Masaryk University, Brno 2005-2006

System and evolution of invertebrates courses, Masaryk University, Brno	2004-2005
Parasitology courses, Comenius University, Bratislava	2003-2004

CONFERENCES (*selected*)

Michalkova V, Benoit JB, Weiss BL, Attardo GM, Aksoy S, Takáč P, Vitamin B6 generated by symbionts is necessary for tsetse fly proline homeostasis and fecundity. FAO/IAEA meeting “Enhancing Vector Refractoriness to Trypanosome Infection”, Addis Ababa, Ethiopia, December 1-5. 2014

Michalkova V., Benoit JB., Attardo GM, Medlock J., Aksoy S., Suppression of lactation-induced oxidative stress in tsetse flies is critical to the prevention of reproductive senescence. Entomological society of America Annual Meeting, Austin, TX, November 9-14. 2013

Michalkova V, Benoit JB, Attardo GM, Aksoy S: Identification of a new group of lactation-associated proteins in the tsetse fly, *Glossina morsitans morsitans*. American Society of Tropical Medicine and Hygiene 60th Annual Meeting, Philadelphia, PA, December 4-8. 2011 (*poster*)

Michalková V., Valigurová A., Koník P., Vaňhara J.: Interactions between the larval endoparasitoid, *Exorista larvarum* (Diptera) and its factitious host *Galleria mellonella* (Lepidoptera). X. European Multicolloquium of Parasitology, Paris, France, August 24.-28., 2008

Michalková V., Pekár S., Korenko S.: How glyphosate pesticide residues affect the behaviour of agrobiont spiders and beetles. XXIII. International Congress of Entomology, Durban, South Africa, July 6.-12., 2008

Michalková V., Valigurová A., Dindo M.L., Vaňhara J., Gelnar M.: Development of the larval parasitoid fly, *Exorista larvarum* (Diptera: Tachinidae) with emphasis on its movements and attachment strategy to the host tissue. X. European Workshop on Insect Parasitoids, Erice (Sicily), Italy, September 17.-21., 2007

PUBLICATIONS

Scolari F, Benoit JB, **Michalkova V**, Aksoy E, Takac P, Abd-Alla AMM, Malacrida AR, Aksoy S, Attardo GM (2016) The Spermatophore in *Glossina morsitans morsitans*: Insights into Male Contributions to Reproduction. *Scientific Reports* 6: 20334

Benoit JB, Attardo GM, Baumann AA, **Michalkova V**, Aksoy S (2015) Adenotrophic Viviparity in Tsetse Flies: Potential for Population Control and as an Insect Model for Lactation. *Annual Review of Entomology* 60: 351-371

Michalkova V, Benoit JB, Weiss BL, Attardo GM, Aksoy S (2014) Vitamin B-6 Generated by Obligate Symbionts Is Critical for Maintaining Proline Homeostasis and Fecundity in Tsetse Flies. *Applied and Environmental Microbiology* 80: 5844-5853

International Glossina Genome Initiative (2014) Genome Sequence of the Tsetse Fly (*Glossina morsitans*): Vector of African Trypanosomiasis. *Science* 344: 380-386

Michalkova V, Benoit JB, Attardo GM, Medlock J, Aksoy S (2014) Amelioration of reproduction-associated oxidative stress in a viviparous insect is critical to prevent reproductive senescence. *PLoS One* 9: e87554

Benoit JB, Attardo GM, **Michalkova V**, Krause TB, Bohova J, Zhang Q, Baumann AA, Mireji PO, Takáč P, Denlinger DL, Ribeiro JM, Aksoy S (2014) A novel highly divergent protein family identified from a viviparous insect by RNA-seq analysis: a potential target for tsetse fly-specific abortifacients. *PLoS Genetics* 10: e1003874

Attardo GM, Benoit JB, **Michalkova V**, Patrick KR, Krause TB, Aksoy S (2014) The Homeodomain protein Ladybird Late Regulates Synthesis of Milk Proteins during Pregnancy in the Tsetse Fly (*Glossina morsitans*). *PLoS Neglected Tropical Diseases* 8:e2645

Benoit JB, Hansen IA, Attardo GM, **Michalkova V**, Mireji PO, Bargul JL, Drake LL, Masiga DK, Aksoy S (2014) Aquaporins are critical for provision of water during lactation and intrauterine progeny hydration to maintain tsetse fly reproductive success. *PLoS Neglected Tropical Diseases* 8:e2517

Valigurová A, **Michalková V**, Dindo ML, Gelnar M., Vaňhara J (2013) Penetration and encapsulation of larval endoparasitoid, *Exorista larvarum* (Diptera: Tachinidae) in the factitious host *Galleria mellonella* (Lepidoptera: Pyralidae). *Bulletin of Entomological Research* 104: 203-212

Baumann AA, Benoit JB, **Michalkova V**, Mireji P, Attardo GM, Moulton JK, Wilson TG, Aksoy S (2013) Interactions between juvenile hormone and insulin signaling pathways regulate lipid levels during lactation and dry periods of tsetse fly pregnancy. *Molecular and Cellular Endocrinology* 372: 30-41

Benoit JB, Attardo GM, **Michalkova V**, Takáč P, Bohova J, Aksoy S (2012) Sphingomyelinase activity is essential for juvenile development when nutrients are solely obtained from mother's milk: a case from tsetse flies. *Biology of Reproduction* 87: 1-10

Attardo GM, Benoit JB, **Michalkova V**, Yang G, Roller L, Bohova J, Takáč P, Aksoy S (2012) Analysis of lipolysis underlying lactation in the tsetse fly, *Glossina morsitans*. *Insect Biochemistry and Molecular Biology* 42: 360-370

Michalková V, Krascsenitsová E, Kozánek M (2012) On the pathogens of the spruce bark beetle *Ips typographus* (Coleoptera: Scolytinae) in the Western Carpathians. *Biologia* 67: 217-221

Korenko S, **Michalková V**, Zwakhals K, Pekár S (2011) Host specificity and temporal and seasonal shifts in host preference of a web-spider parasitoid *Zatypota percontatoria*. *Journal of Insect Science* 101: 1-12

Korenko S, Kula E, Šimon V, **Michalková V**, Pekár S (2011) Are arboreal spiders associated with particular tree canopies? *North-Western Journal of Zoology* 7: 261-269

Michalková V, Pekár S (2009) How pesticide management of herbicide-tolerant crops can alter the behaviour of agrobiont spiders (Araneae: Lycosidae) and beetles (Coleoptera: Carabidae). *Biological Control* 51: 444-449

Valigurová A., **Michalková V**, Koudela B (2009) Eugregarine trophozoite detachment from the host epithelium via epimerite retraction: Fiction or fact? *International Journal for Parasitology* 39: 1235-1242

Michalková V, Valigurová A, Dindo ML, Vaňhara J (2009) Larval morphology and anatomy of the parasitoid *Exorista larvarum* (Diptera: Tachinidae), with an emphasis on cephalopharyngeal skeleton and digestive tract. *Journal of Parasitology* 95: 544-554

Vaňhara J, Tschorsnig HP, Herting B, Mückstein P, **Michalková V** (2009) Annotated host catalogue for the Tachinidae (Diptera) of the Czech Republic. *Entomologica Fennica* 20: 22-48

Korenko S, Kula E, Holec M, Jarab M, **Michalková V** (2008) Influence of liming on the epigeic spider (Araneae) community of the Krušné hory Mts. (Czech Republic). *European Journal of Soil Biology* 44: 559-566

Mückstein P, Tschorsnig HP, Vaňhara J, **Michalková V** (2007) New host and country records for European Tachinidae (Diptera). *Entomologica Fennica* 18:179-183

Michalková V, Halgoš J (2005) Phenology of Mosquitoes (Diptera, Culicidae) in the Morava River Flood Plain. *Dipteron* 21: 21-22

PROJECTS

2013 – 2015 - IAEA 17713/R0 Part of Co-ordinated Project: Enhancing Vector Refractoriness to Trypanosome Infection (investigator: Dr. Veronika Michalková)

2011 – 2014 - NIH R21, Tsetse fecundity reduction for trypanosomiasis control. (2010 – 2014, investigator: Dr. Geoffrey M. Attardo)

2009 – 2011 - APVV, Development of new strategies to control the populations of spruce bark beetles *Ips typographus*. (2009 – 2011, investigator: Dr. Milan Kozánek)

2009 – 2010 - ECO-NET, Biologie fonctionnelle des protozoaires USM504: Biodiversity of gregarines in a changing environment and evolutionary strategies in early apicomplexans. (2009 – 2010, investigator: Prof. Joseph Schrével)

2007 – 2008 - Ministry of Agriculture of the CR (High-quality and Safe Alimentation, National Research Programme) 1B53057: The evaluation and prevention of environmental and ecological risks related to introduction of genetically modified crops in the Czech Republic (2005 – 2008, investigator: Assoc. Prof. Stanislav Pekár)

2005 – 2008 - Doctoral project, Grant Agency of CR GD524/05/H536: Evolutionary ecological analysis of biological systems: research centre for PhD studies (2005 – 2008, investigator: Assoc. Prof. Milan Chytrý)

2005 – 2006, 2009 - Research project MSM0021622416: Diversity of Biotic Communities and Populations: Causal Analysis of variation in space and time (2005 – 2011, investigator: Assoc. Prof. Milan Chytrý)