

БИОЛОШКИ ФАКУЛТЕТ
УНИВЕРЗИТЕТА У БЕОГРАДУ

ПРИМЉЕНО: 23. 9. 2018.			
Орг. јед.	Број	Почасног	Предмет
	105/1		

Na osnovu članova 65 i 77 Zakona o visokom obrazovanju, Pravilnika o uslovima i načinu angažovanja gostujućeg profesora na Univerzitetu u Beogradu, članu 129 Statuta Biološkog fakulteta, Nastavno-naučnom veću Univerziteta u Beogradu – Biološkog fakulteta podnosimo sledeći

REFERAT

BIOGRAFIJA

Miodrag Grbić je završio osnovne studije na Poljoprivrednom fakultetu u Novom Sadu na odseku Zaštita bilja i odbranio magistarski rad u oblasti entomologije 1988. godine. Kao Fulbrajtove stipendista odlazi na doktorske studije u USA na univerzitet Madison Wisconsin gde brani doktorat 1995. godine u oblasti molekularne biologije, kao “double major” na biologiji razvića i entomologiji. Kao stipendista Human Frontier in Science, 1996. godine odlazi na postdoktorske studije na Univerzitet u Kembridžu (UK) u Wellcome Trust Institutu. Izabran je za docenta na Univerzitetu Western Ontario 1998. godine gde vodi program genomike artropoda i gde je 2003. godine izabran za vanrednog profesora. Profesor Grbić inicira projekat sekvenciranja prvog genoma helicerata, koprivinog preglja, *Tetranychus urticae* finansiranog od United States Department of Energy 2006. godine. Kao vođa genomskog konzorcijuma organizator je 9 međunarodnih kongresa o genomu koprivinog preglja i nastavlja da vodi ovaj genomski konzorcijum. Profesor Grbić objavljuje radove u vodećim naučnim časopisima uključujući Nature, PNAS, E-life i Development. Takođe je dao doprinos novim tehnologijama gde ima 2 međunarodna patenta i osnivač je kompanije **Nanomitech**. Profesor Grbić je recenzent projekata H2020 (EU), NSF (USA), NIH (USA), NSERC (Canada) i drugih agencija koje finansiraju naučna istraživanja. Profesor Grbić je gostujući profesor na Univerzitetu u La Rioji, Španija i Investigador vinculado de CSIC, Španija. Posebno ističemo da je osmislio i unapredio više univerzitetskih kurseva, uključujući kurs iz Genomike, a uključen je u predavanja na doktorskim kursovima na Univerzitetu u La Rioji, kao i u Gulbenkian biomedicinskom doktorskom programu u Portugalu.

Naučno-istraživačke nagrade

Profesor Grbić je dobitnik više nagrada za svoj naučni rad uključujući:

- Premier's Research Excellence Award 2000;
- Ministry of Energy, Science and Technology Ontario (Canada),
- Marie Curie Incoming International Fellowship (EU),
- OECD research fellowship (International),
- Vanguard award for biotechnological development (Canada).

PATENTI:

Grbić M, Van de Peer Y, Rombauts S, Grbić V (2010) Spider mite silk proteins, EP2483297 A1

Grbić M, Grbić V, Hilson P, Rombauts S, Van de Peer, Y (2010) Method to control spider mites, EP2488647 A1

Van Leeuwen T, Bryon A, Grbić M, Van de Peer Y (2013) A novel class of antifreeze proteins. European Patent Application, EP13189511.2

NAUČNO-ISTRAŽIVAČKI PROJEKTI

Genomics-based environmentally-friendly technologies for control of high-risk pests in agriculture Pest Genomics and Plant Breeding in a sustainable agricultural pest management. M. Grbić PI. Budget: \$3,632,863 CAD Period: 2016-2020. Funding agency Ontario Ministry of Research and Innovation Ontario Research Fund.

New generation sustainable tools to control emerging mite pests under climate change (GENOMITE). J. Cross (coordinator), M. Grbić (scientific leader), V. Grbić, Y. Van de Peer, I Diaz, M. Navajas, P. Castanera, M. Stavranidis, T. Van Leeuwen, L. Willmitzer. Budget: 1,745,000 EUR, 2015-2018.FACCE-ERA-NET+

Evolution of pattern formation in insects applicants: (NSERC discovery grant) Miodrag Grbić PI, period: 2013-2017. Natural Sciences and Engineering Research Council of Canada.

Završeni projekti:

Pest Genomics and Plant Breeding in a sustainable agricultural pest management. M. Grbić PI. Budget: \$1,977,514.00 CAD Period: 2011-2014. Global Leadership in genomics and Life Sciences (GL2) Ontario Ministry of Research and Innovation.

ADF-UWO; Biotron, Grbić, M., Grbić, V; \$ 42,823, Period: 2010-2011.

Genomics in Agricultural Pest Management (GAP-M); PI M. Grbić co PI: Y. van de Peer, M. Navajas, F. Ortego, I. Diaz, JM Zapater, V. Grbić; \$6,390,093, 2009-2013. Genome Canada

Evolution of pattern formation in insects applicants: (NSERC discovery grant) Miodrag Grbić PI, amount: \$227,500 period: 2007-2012. Natural Sciences and Engineering Research Council of Canada

Model Chelicerate genome: whole genome sequencing of spider mite *Tetranychus urticae*. applicants: Miodrag Grbić PI, Co-PI: Maria Navajas INRA Montpellier, France, Jeffrey Boore

DOE Joint Genome Institute and Lawrence Berkeley National Lab, Walnut Creek, USA, Lisa Nagy, University of Arizona, Tucson, USA, Andre Pires da Silva, University of Texas at Arlington, USA.amount: US \$2,800,000 Period: 2006-2009. DOE Community Sequencing Program

Genetic pest control: plant-generated RNAi gene knockouts in agricultural pest (NSERC Strategic grant) applicants: Miodrag Grbić PI, V. Grbic co-PI amount: \$435,000 period: 2005-2008 Natural Sciences and Engineering Research Council of Canada.

Influence of environment on evolution of developmental programs in insects applicants: Miodrag Grbić PI. amount: \$83,000 Period: 2007-2008. Canadian Space Agency.

UWO Biotron (equipment grant) applicants: Norman Huner PI, Miodrag Grbić co-PI and seven others. amount: \$28,371,122 Period: 2004-2007. Canadian Foundation for Innovation and Ontario Government Matching Fund.

Genomics of spider mite: development of a novel model organism (NSERC genomics grant)

applicants: Miodrag Grbić PI, amount: \$45,000/year, period: 2002-2006. Natural Sciences and Engineering Research Council of Canada.

Evolution of pattern formation in insects (NSERC discovery grant), applicant: Miodrag Grbić PI, amount: \$178,184, period: 2002-2006. Natural Sciences and Engineering Research Council of Canada.

Transgenic technology in biological pest control (Premier's Research Excellence Award), applicant: Miodrag Grbić PI, amount: \$150,000, period: 2000-2005. Ontario Ministry of Energy, Science and Technology.

Molecular biology facility for embryo manipulation and genetic transformation (equipment grant) applicants: Miodrag Grbić PI, Vojislava Grbić co-PI, amount: \$850,000 period: 1999. Canadian Foundation for Innovation and Ontario Government Matching Fund.

Laser-based embryo manipulation workstation (equipment grant), applicant: Miodrag Grbić PI and 5 others co-PIs, amount: \$76,649, period: 1998. UWO Academic Development Fund.

Evolution of pattern formation in insects (NSERC discovery grant), applicant: Miodrag Grbić PI, amount: \$132,000, period: 1998-2001. Natural Sciences and Engineering Research Council of Canada.

Transgenic intracellular injection (NSERC equipment grant), applicants: Miodrag Grbić PI and 3 others co-PIs, amount: \$64,084, period: 1998. Natural Sciences and Engineering Research Council of Canada.

Caste determination in the polyembryonic wasp *Copidosoma floridanum* NSF competitive, applicants: Michael Strand PI, Miodrag Grbić co-PI amount: \$450,000, period: 1995-1998. National Science Foundation (USA).

Recenzent radova u časopisima (poslednje tri godine):

Nature Reviews

Science

PLOS Biology

Arthropod Structure & Development

Evolution and Development

Biocontrol

Pesticide Biochemistry and Physiology

PLOS Genetics

Scientific Reports

PUBLIKOVANI RADOVI

M21a

- Rioja C, Zhurov V, Bruinsma K, Grbić M, Grbić V (2017). Plant-herbivore interaction: a case of an extreme generalist, the two-spotted spider mite, *Tetranychus urticae*. **Molecular Plant Microbe Interaction** doi: 10.1094/MPMI-07
i.f.= 4.332
- Schlachter CR, Klapper V, Wybouw N, Radford T, Van Leeuwen T, Grbić M, Chruszcz M (2017). Structural Characterization of a Eukaryotic Cyanase from *Tetranychus urticae*. **Journal of Agricultural and Food Chemistry** 65(27): 5453-5462.
i.f.= 3.154
- Bryona A, Kurlavs AH, Dermauw W, Greenhalgh R, Riga M, Grbić M, Tirry L, Osakabe M, Vontas J, Clark RM, Van Leeuwen T (2017). Disruption of a horizontally transferred phytoene desaturase abolishes carotenoid accumulation and diapause in *Tetranychus urticae*. **Proceedings of the National Academy of Sciences of the United States of America** 114: E5871–E5880.
i.f.= 9.661
- Bensoussan N, Santamaria ME, Zhurov V, Diaz I, Grbić M, Grbić V (2016) Plant-Herbivore Interaction: Dissection of the Cellular Pattern of *Tetranychus urticae* Feeding on the Host Plant. **Frontiers in Plant Science** 7,
DOI: 10.3389/fpls.2016.01105
i.f.= 4.291
- Martel C, Zhurov V, Navarro V, Martinez M, Cazaux M, Auger P, Migeon A, Estrella Santamaria M, Wybouw N, Diaz I, Van Leeuwen T, Navajas M, Grbić M, Grbić V (2015). Tomato Whole Genome Transcriptional Response to *Tetranychus urticae* Identifies Divergence of Spider Mite-Induced Responses Between Tomato and Arabidopsis. **Molecular Plant-Microbe Interactions** 28, 3, P.343-361.
i.f.=4.145
- Peter Demaeght, Edward J Osborne, Jothini Odman-Naresh, Miodrag Grbić, Ralf Nauen, Hans Merzendorfer, Richard M Clark, Thomas Van Leeuwen (2014) High resolution genetic mapping uncovers chitin synthase-1 as the target-site of the structurally diverse mite growth inhibitors clofentezine, hexythiazox and etoxazole in *Tetranychus urticae*. **Insect Biochemistry and Molecular Biology** 51: 52-61.
i.f.= 3.450
- Wybouw N, Dermauw W, Tirry L, Stevens C, Grbić M, Feyereisen R, Van Leeuwen T (2014). A gene horizontally transferred from bacteria protects arthropods from host plant cyanide poisoning. **E-life** 24;3:e02365
i.f.= 9.322

Zhurov V, Navarro M, Bruinsma KA, Arbona V, Santamaria ME, Cazaux M, Wybouw N, Osborne EJ, Ens C, Rioja C, Vermeirssen V, Rubio-Somoza I, Krishna P, Diaz I, Schmid M, Gómez-Cadenas A, Van de Peer Y, Grbić M, Clark RM, Van Leeuwen T, Grbic V (2014). Reciprocal responses in the interaction between Arabidopsis and the cell-content-feeding chelicerate herbivore spider mite. **Plant Physiology** 164(1): 384-399.
i.f.= 6.841

VanLeeuwen T, Dermauw W, Grbić M, Tirry L, Feyereisen R (2013). Spider mite control and resistance management: does a genome help? **Pest Management Science** 69, 156-159.
i.f.= 2.743

Dermauw W, Wybouw N, Rombauts S, Menten B, Vontas J, Grbić M, Clark RM, Feyereisen R, VanLeeuwen T (2013). A link between host plant adaptation and pesticide resistance in the polyphagous spider mite *Tetranychus urticae*. **Proceedings of the National Academy of Sciences of the United States of America** 110, 113-122.
i.f.= 9.809

Wybouw N, Balabanidou V, Ballhorn DJ, Dermauw W, Grbić M, Vontas J, VanLeeuwen T (2012). A horizontally transferred cyanase gene in the spider mite *Tetranychus urticae* is involved in cyanate metabolism and is differentially expressed upon host plant change. **Insect Biochemistry and Molecular Biology** 42, 881-889.
i.f.= 3.234

Veenstra JA, Rombauts S, Grbić M (2012). In silico cloning of genes encoding neuropeptides, neurohormones and the putative G-protein coupled receptors in a spider mite. **Insect Biochemistry and Molecular Biology** 42(4), 277-295.
i.f.= 3.234

VanLeeuwen T, Demaeht P, Osborne EJ, Dermauw W, Gohlke S, Nauen R, Grbić M, Tirry L, Merzendorfer H & Clark RM (2012). Population bulks segregate mapping uncovers resistance mutations and the mode of action of a chitin synthesis inhibitor in arthropods. **Proceedings of the National Academy of Sciences of the United States of America** 109, 4407-4412.
i.f.= 9.737

Dermauw W, Ilias A, Riga M, Tsagkarakou A, Grbić M, Tirry L, VanLeeuwen T & Vontas J (2012). The cys-loop ligand-gated ion channel gene family of *Tetranychus urticae*: implications for acaricide toxicology and a novel mutation associated with abamectin resistance. **Insect Biochemistry and Molecular Biology** 42, 455-465.
i.f.= 3.234

Grbić M, Van Leeuwen T, Clark RM, Rombauts S, Rouzé P, Grbić V, Osborne EJ, Dermauw W, Ngoc PC, Ortego F, Hernández-Crespo P (2011). The genome of *Tetranychus urticae* reveals herbivorous pest adaptations. **Nature** 479 (7374):487-492.

i.f.= 36.280

Grbić M, Khila A, Kwang-Zin Lee, Bjelica A, Grbić V, Whistlecraft J, Verdon L, Navajas Mand Nagy L(2007). Mitymodel: *Tetranychus urticae*, a candidate chelicerate model organism. **Bioessays** 29, 489-496.

i.f.= 5.402

Zhurov V, Terzin T, and Grbić M (2004). Early blastomere determines embryoproliferation and caste fate in a polyembryonic wasp. **Nature** 432, 746-769.

i.f.= 32.182

Dearden PK, Donly C, Grbić M (2002). Expression of pair-rule gene homologues in a chelicerate: early patterning of the Two-Spotted Spider Mite *Tetranychus urticae*. **Development** 129, 5461-5472.

i.f. = 7.883

Grbić M (2000). "Alien" wasps and evolution of development. **Bio Essays** 22, 920-932.

i.f.= 7.906

Ives A, Schooler RSS, Jagar RJ, Knuteson SEE, Grbić M, Settle WH (1999). Variability and parasitoid foraging efficiency: a case study of pea aphids and *Aphidius ervi*. **American Naturalist** 154, 652-673.

i.f. = 3.928

Grbić M, Rivers D, Strand M (1997). Caste specification in the polyembryonic wasp *Copidosoma floridanum*: *in vivo* and *in vitro* analysis. **Journal of Insect Physiology** 43, 553-565.

i.f. = 1.662

Grbić M, Nagy L, Carroll S, Strand M (1996). Polyembryonic development: insect pattern formation in a cellularized environment. **Development** 122, 795-804.

i.f. = 9.781

Grbić M, Ode P, Strand MR (1992). Sibling rivalry and broods exratoin polyembryonic wasps. **Nature** 360, 254-256.

i.f. = 22.132

M21

Suzuki T, España MU, Nunes MA, Zhurov V, Dermauw W, Osakabe M, Van Leeuwen T, Grbić M, Grbić V (2017). Protocols for the delivery of small molecules to

the two-spotted spider mite, *Tetranychus urticae*. **PLOS ONE** 12(12), e0190025

i.f. =2.806

Santos-Matos G, Wybouw N, Martins NE, Zele F, Riga M, Leitao AB, Vontas J, Grbić M, Van Leeuwen T, Magalhaes S, Sucena E (2017). *Tetranychus urticae* mites do not mount an induced immune response against bacteria. **Proceedings of the Royal Society B-Biological Sciences** 284 (1856).

i.f. =4.940

Suzuki T, Nunes MA, España MU, Namin HH, Pengyu Jin, Bensoussan N, Zhurov V, Rahman T, De Clerc R, Hilson P, Grbić V, Grbić M (2017). RNAi-based reverse genetics in the chelicerate model *Tetranychus urticae*: A comparative analysis of five methods for gene silencing. **PLOS ONE** 12 (7), E5880

i.f. =2.806

Díaz-Riquelme J, Zhurov V, Rioja C, Pérez-Moreno I, Torres-Pérez R, Grimplet J, Carbonell-Bejerano P, Bajda S, Van Leeuwen T, Martínez-Zapater JM, Grbić M and Grbić V (2016). Comparative genome-wide transcriptome analysis of *Vitis vinifera* responses to adapted and non-adapted strains of two-spotted spider mite, *Tetranychus urticae*. **BMC Genomics** 17: 74.

i.f. =3.729

Cazaux M, Navarro M, Bruinsma KA, Zhurov V, Negrave T, Van Leeuwen T, Grbić V, and Grbić M (2014) Application of two-spotted spider mite *Tetranychus urticae* for plant-pest interaction studies. **Journal of Visualized Experiments** 89 doi:10.3791/51738

i.f. =1.325

Dermauw W, Osborne EJ, Clark RM, Grbić M, Tirry L, Van Leeuwen T (2013). A burst of ABC genes in the genome of the polyphagous spider mite *Tetranychus urticae*. **BMC Genomics** 10(14): 317.

i.f. =4.041

Hudson SD, Zhurov V, Grbić V, Grbić M, Hutter JL (2013). Measurement of the Elastic Modulus of Spider Mite Silk Fibers Using Atomic Force Microscopy. **Journal of Applied Physics** 113, 15154307doi:10.1063/1.4800865

i.f. =2.185

Santamaria ME, Hernandez-Crespo P, Ortego F, GrbićV, Grbić M, Diaz I & Martinez M (2012). Cysteine peptidases and the irinhibitors in *Tetranychus urticae*: a comparative genomic approach. **BMC Genomics** 13, 307.

i.f. =4.397

ZhurovV, TerzinT, andGrbićM(2007). The(In)discretecharmofthepolyembryony. **Cellular and MolecularLife Sciences** 64,21:2790-2798.

i.f. =5.239

Dearden P, Grbić M, Falciani F, Mora F, Akam M (2000). Maternal expression and early zygotic regulation of the Hox3/zengene in the grasshopper *Schistocerca gregaria*. **Evolution and Development** 2(5), 1-12.
i.f. = 3.400

Strand M, and Grbić M (1997). Development and evolution of polyembryonic insects. **Current Topics in Developmental Biology** 35, 121-160.
i.f. = 2.500

Bachrecke EH, Grbić M, Strand MR (1992). Serosa ontogeny and into two embryonic morphs of *Copidosoma floridanum*, the role of host hormones. **Journal of Experimental Zoology** 262, 30-39.
i.f. = 1.263

M22

Pace RM, Grbić M, Nagy LM (2016). Composition and genomic organization of arthropod Hox clusters. **Evo Devo** 7, DOI: 10.1186/s13227-016-0048-4
i.f. = 2.818

Pace RM, Eskridge PC, Grbić M, Nagy LM (2014). Evidence for the plasticity of arthropod signal transduction pathways. **Development Genes and Evolution** 224 (4-6): 209-222.
i.f. = 2.441

Sucena, E., Vanderberg, K., Zhurov V. Grbić, M (2014) Reversion of developmental mode in insects: evolution from long germband to short germband in the polyembryonic wasp *Macrocentrus cingulum* Brischke. **Evolution and Development** 16(4), 233-246.
i.f. = 2.716

Grbić M (2003). Polyembryony in parasitic wasps: evolution of a novel mode of development. **International Journal of Developmental Biology** 47, 633-642.
i.f. = 1.306

Grbić M, Nagy L, Strand M (1998). Polyembryonic embryogenesis: a major departure from typical insect embryogenesis. **Development, Genes and Evolution** 208, 69-81.
i.f. = 1.443

Grbić M, Nagy L, Strand M (1996). Pattern duplications in larvae of the polyembryonic wasp *Copidosoma floridanum*. **Development, Genes and Evolution** 206, 281-287.
i.f. = 1.231

M23

Khila A, and Grbić M (2007). Gene silencing in the spider mite *Tetranychus urticae*: dsRNA and siRNA parental silencing of the *Distal-less* gene. **Development, Genes & Evolution** 414, 251-261.
i.f. = 2.217

Zhurov V, and Grbić M (2005). Transplantation of a polyembryonic wasp embryo: a technique for transfer of an endoparasitic embryo in to the host egg. **Development, Genes & Evolution** 215, 645-650.
i.f. = 2.549

Dearden PK, Grbić M, Donly C (2003). Vasa expression and germ-cell specification in the spider mite *Tetranychus urticae*. **Development, Genes and Evolution** 212, 599-603.
i.f. = 2.266

Strand MR, Grbić M (1999). Life history shifts and alterations in the early development of parasitic wasps. **Invertebrate Reproduction & Development** 36(1-3), 51-56.
i.f. = 0.708

Časopisi bez i.f.:

Miodrag Grbić. Evolution of polyembryonic development in parasitic wasps. In: Genetic a molecolare dello sviluppo degli insetti. **Atti della Accademia Nazionale Italiana di Entomologia** 2008. Firenze, 43-51.

Grbić, M. and Strand, M. (1998) Shifts in the life history of parasitic wasps correlate with pronounced alterations in early development. **Proceedings National Academy of Sciences USA**, 95, 1097-1101.

Grbić M, Lakić B, Mihajlović Lj (1990). Predators and parasitoids of *Psyllapyri* L. (Hom: Psyllidae) in Vojvodina. **Bulletin SROP**, 13, 1, 44-54.

Grbić M (1987) A study of the biology and control of *Adoxophyes reticulana* Hbn., a new pest of plantation orchards in Vojvodina Province. **Zbornik Matice Srpske za Prirodne Nauke**, 73, 15-23.

Publikacije u međunarodnim monografijama:

Nagy, L.M. and Grbic, M. (2001) "Embryogenesis." In: **Encyclopedia of Insects**, eds. Vincent Resh and Ring Cardé, Academic Press: San Diego.

Nagy, L. and Grbic, M. (1999) Cell lineages in larval development and evolution- Insects. In: **The origin and evolution of larval forms**. (B.K. Hall and M.H. Wake eds). Academic Press 275-300.

Strand, M.R., Grbic, M. (1997) Development and life history of polyembryonic

parasitoids. In: **Parasites: Effect on Host Endocrinology and Behaviour**. (N. Backage editor) Chapman and Hall, New York. 37-56.

Saopštenja na naučnim skupovima:

Grbić M. Genomics approaches in modern Entomology: from Biotechnology and pest control to new materials and understanding of the evolution of complex developmental programs. Congreso Nacional de Entomologia Aplicada, **Logrono, Spain** 16-20 Octobre 2017.

Grbić M. Genomic approaches in chelicerates and insects: from biotechnology and pest control to new materials and understanding of the evolution of complex developmental programs. 61st Annual Meeting of the Japanese Society of Applied Entomology and Zoology. **Tokyo Japan** March 27-30 2017.

Grbić M. Genomic-based strategies to control global high-risk pest the two-spotted spider mite (tssm), *Tetranychus urticae* and other pest mites. 61st Annual Meeting of the Japanese Society of Applied Entomology and Zoology. **Tokyo Japan** March 27-30 2017.

Grbić M. Next generation technologies for spider mite pest control: how spider mite genome project is changing approaches to control of phytophagous mites. Plenary talk; Panhellenic Entomological Congress, **Heraklion, Creta, Greece** 20-23 October 2015

Grbić M. Next generation technologies for spider mite pest control: how spider mite genome project is changing approaches to control of phytophagous mites. Fifth Meeting of the IOBC- WPRS Working Group "Integrated Control of Mite Pests" in **Castellón de la Plana, Spain**, September 7th to 10th 2015

Grbić M. The genome signature of polyphagy and monophagy: spider mite comparative genomics International Society of Chemical Ecology, **Urbana Champaign, USA** July 8-12 2014.

Grbić M. Whole genome sequencing of spider mites: how spider mite genomes can contribute to the IPM? From biotechnology, novel tools to understand plant-pest interaction to new biomaterials VII Meeting of the IOBC- WPRS Working Group "Pome fruit arthropods" and "Stone fruits " **Vienna, Austria**, 6-10 October 2014.

Grbić M. Whole genome sequencing of spider mites: From arthropod genome evolution to biotechnology and new biomaterials. Illumina European Scientific Summit **Prague, Czech Republic**, 13 – 15 May, 2014.

Grbić M. Whole genome sequencing of spider mites: From genome evolution to biotechnology and new biomaterials. 2nd CNAG symposium on genome research: epigenomics, CNAG, **Barcelona, Spain**, February 20 2014.

Grbić M. Whole genome sequencing of spider mites: From genome evolution to biotechnology and new biomaterials. Lausanne Genomic Days, University of **Lausanne, Switzerland**, February 13 2014.

Grbić M. Genome sequencing of the spider mite *Tetranychus urticae*: opportunities for development of alternative pest control strategies. Joint Annual Meeting of the Entomological Society of Canada (ESC) and Entomological Society of Ontario, **Guelph, Canada** 21 October 2013.

Grbić M. Grbić, V., Perez Moreno, I., Navajas, M., Clark, R., van Leeuwen, T., Ortego, F., Diaz, I., van de Peer, Y. Whole genome sequencing of *Tetranychus urticae*

- Koch: from genomics and biotechnology to new biomaterials. 8th Congreso nacional de entomologia aplicada, **Mataro, Spain** 23 October 2013,
- Grbić M. Thomas Van Leeuwen, Richard Clark, Maria Navajas, Yves Van de Peer, Isabel Diaz, Felix Ortego, Rene Feyereisen, Vojislava Grbic The genome of two spotted spider mite *Tetranychus urticae*. XXIV International Congress of Entomology, **Deagu, South Korea**, 19-25 August 2012.
- Grbić M. The genome of the two spotted spider mite *Tetranychus urticae*: New model for plant-pest interactions. 6th Annual Arthropod Genomics Symposium, **Kansas City, USA** May 30-Jun 2, 2012
- Grbić M., Vladimir Zhurov, Stephane Rombauts, Jeffrey Hutter and Vojislava Grbić Genomics in spider mites leads to new biomaterials. 7th Symposium of the European Association of Acarologists, **Vienna, Austria**, July 9 to 13, 2012.
- Grbić M., Vojislava Grbic, Maria Navajas, Richard Clark, Thomas Van Leeuwen and Yves van de Peer The genome organization of two spotted spider mite *Tetranychus urticae*. 7th Symposium of the European Association of Acarologists, **Vienna, Austria**, July 9 to 13, 2012.
- Grbić M. The genome of *Tetranychus urticae* reveals herbivorous pest adaptations. University of La Rioja, **Logrono, Spain** 2 December 2011.
- Grbić M., R. Clark, M. Navajas, V. Grbic, S. Rombauts & Y. van de Peer The first chelicerate genome of a major agricultural pest, spider mite *Tetranychus urticae*, an emerging model for plant-herbivore interactions, the XIII International Congress of Acarology, **Recife, Brazil**, 22-28 August, 2010.
- Grbić M., Maria Navajas Vojislava Grbic Whole genome sequencing of *Tetranychus urticae*: novel genomic tools in acarological research. 6th Symposium of European Association of Acarologists, **Montpellier, France** 21-25 July 2008.
- Grbić M. Polyembryony in parasitic wasps: evolution of a novel mode of development. Accademia Nazionale Italiana di Entomologia, **Florence Italy** 6 June 2008.
- Robbens S., Pierre Rouzé, Miodrag Grbić and Yves Van de Peer The Genome of the Spider Mite *Tetranychus urticae* soon to be sequenced and annotated. 2nd Annual arthropod genomics symposium: New Insights from Arthropod Genomes, **Kansas City, USA** April 11 - 13, 2008.
- Poo C., Johannes Mathieu, Richard Clark, Marcus Schmid, Miodrag Grbić, Vojislava Grbic Whole genome sequencing of the Two Spotted Spider Mite *Tetranychus urticae*: novel model for plant-herbivore interactions. Joint Genome Institute. Third Annual US Department of Energy Joint Genome Institute User Meeting, **Walnut Creek, California, USA** March 26-28 2008.
- Grbić M. *Tetranychus urticae*, novel model for plant-herbivore interactions. FP 7 Consortium Meeting, CSIC, **Madrid, Spain** January 22 2008.
- Grbić M. Evolution of developmental novelties in Hymenoptera. First European Evolution of Development Meeting, **Prague, Czech Republic**, August 17-20, 2006.
- Grbić M. Evolution of developmental novelties. Evolution of Development Meeting, **Venice, Italy**, May 4-6, 2006.
- Khila A. Grbić M. RNAi gene silencing in two spotted spider mite, *Tetranychus urticae*. 2006 Annual CSZ Meeting: **Edmonton, Canada** May 2 - 6
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. Segmentation Meeting, San Francisco, USA, July 27, 2005.
- Grbić M. Evolution of pattern formation in arthropods, Second Canadian Developmental Biology Meeting, Banff, **Alberta, Canada**, April 1-4, 2004.

- Grbić M. Polyembryony in parasitic wasps: evolution of a novel mode of development. 44th Annual Drosophila Research Conference, **Washington DC, USA** 24-28 March 2004.
- Dearden P., Cameron Donly, Miodrag Grbić Genomics of spider mite *Tetranychus urticae*: evolution of developmental mechanisms in Chelicerata. Molecular Evolution meeting, **Sorento, Italy**. June 13-16 2002.
- Dearden P., Cameron Donly and Miodrag Grbić Genomics of spider mite *Tetranychus urticae*: development of model chelicerate First Canadian Developmental Biology Conference, **Mont Tremblant, Quebec, Canada** p. A38. 4-7 April 2002.
- Dearden P., Cameron Donly and Miodrag Grbić Genomics of spider mite *Tetranychus urticae*: evolution of developmental mechanisms in Chelicerata. Human Frontier Science Program Second Annual Awardees' Meeting **Ottawa, Canada** p.55. June 9-12 2002.
- Grbić M. Evolution of pattern formation in insects: radical changes in development are associated with switch in the life history. Hymenopteran Genetics and Development Meeting, **Washington DC, USA**, March 24 2001.
- Grbić M. Evolution of pattern formation in insects: radical changes in development are associated with switch in the life history. Developmental Gene Regulation and Mechanisms of Evolution meeting (organized by NASA), **Woods Hole, USA**, June 10 1998.
- Grbić M. Evolution of development and changes in life history in insects. Workshop on Development and Evolution (organized by G. Morata and W. J. Gehring), **Madrid, Spain**, 3-5 November 1997.

Predavanja po pozivu na različitim institucijama:

- Grbić M. (2017). Genomic approaches in chelicerates and insects: from biotechnology and pest control to new materials and understanding of the evolution of complex developmental programs. **University of Koln, Germany**, Koln, Germany
- Grbić M. Whole genome sequencing of spider mites: From genome evolution to biotechnology and new biomaterials. **J. Craig Venter Institute, La Jolla, California, USA**, April 30 2014.
- Grbić M. Whole genome sequencing of *Tetranychus urticae* Koch: from pest genomics and biotechnology to new biomaterials. The Guy Lipscomb Lecture in Chemistry and Biochemistry. **University of South Carolina, Columbia, USA**, November 15th 2013.
- Grbić M. Whole genome sequencing of *Tetranychus urticae* Koch: from pest genomics and biotechnology to new biomaterials. **East Malling Research Institute, UK** July 2013.
- Grbić M. Whole genome sequencing of *Tetranychus urticae*: novel system for plant-pest interactions. **Institute for Biodiversity and Ecosystem Dynamics (IBED) University of Amsterdam. Holland** February 25 2009.
- Grbić M. Evolution of arthropod development: from an ancestral developmental program to developmental novelties and biotechnology applications. **University of Tübingen, Germany** June 26 2008.
- Grbić M. Evolution of arthropod development: from an ancestral developmental program to developmental novelties and biotechnology applications. **University of Innsbruck, Austria** June 17 2008.

- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. University of Vienna, Austria, March 3 2008.
- Grbić M. New tools for biotechnology: Whole genome sequencing of spider mite *Tetranychus urticae*, major agricultural pest. **Devgen, Biotech Company, Gent, Belgium**, December 12 2007.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. Universidad Politécnica de Madrid, Spain, November 23 2007.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **University of Halle, Germany**, July 17 2007.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **University of Gent, Belgium**, June 11 2007.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **University of Lausanne, Department of Ecology and Evolution, Switzerland**, November 21 2006.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **Institut de Recherche sur la Biologie de l'Insecte, Tours, France** July 31 2006.
- Grbić M. Evolution of developmental mechanisms in arthropods. **University of Reading, UK**, July 5 2006.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **CNRS, Villefranche-sur-mer, France**, June 15 2006.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **University of Nurnberg-Erlangen, Department of Biology, Germany**, July 11 2005.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **University of Lausanne, Department of Ecology and Evolution, Switzerland**, May 12 2005.
- Grbić M. Evolution of arthropod development: from ancestral developmental program to developmental novelties. **Instituto Gulbenkian de Ciencia, Oeiras, Portugal**, May 4 2005.
- Grbić M. Evolution of pattern formation mechanisms in arthropods. Centre de Biologie du Développement **CNRS, Toulouse, France**, October 30 2004.
- Grbić M. Evolution of axial patterning in arthropods, Department of Biology University of New York, New York, USA, October 11th 2004.
- Grbić M. Evolution of pattern formation mechanisms in arthropods, Department of Biology University of Maryland, Washington DC, USA, May 12th 2004.
- Grbić M. Evolution of pattern formation mechanisms in arthropods, Department of Biological Sciences **University of Alberta, Edmonton, Canada**, December 12th 2003.
- Grbić M. Evolution of early development in arthropods, **Max Planck Institute for Developmental Biology, Tubingen, Germany**, August 5th 2003.
- Grbić M. Evolution of early development in arthropods **Carnegie Institution of Washington, Department of Embryology, Baltimore, USA**, 10 February 2003
- Grbić M. Pattern formation in parasitoids: evolution of developmental mechanisms associated with change in the embryonic environment. **Dipartimento di Biologia- Università della Basilicata Potenza, Italy**, June 18th 2002.

- Grbić M. Evolution of developmental mechanisms. **Istituto Internazionale di Genetica e Biofisica Napoli, Italy**, June 17 2002.
- Grbić M. Embryo cloning: Evolution of polyembryonic development. Institute for Molecular genetics and Genetic Engineering, **University of Belgrade, Yugoslavia** 27 February 2002
- Grbić M. Arthropod pattern formation in a cellularised environment: chelicerates and monoembryonic insects. **Institute for Developmental Biology, University of Koeln, Germany** 24 June 2001
- Grbić M. Insect pattern formation in a cellularised environment: polyembryonic development. . **Institute for Developmental Biology, University of Koeln, Germany** 23 June 2001
- Grbić M. "Alien" wasps and evolution of development. **Wayn State University USA**, April 2 2001.
- Grbić M. Evolution of pattern formation in insects: radical changes in development are associated with switch in the life history. **Duke University, USA**, March 26 2001.
- Grbić M. "Alien" wasps and evolution of development. **Universidad Autonoma de Madrid, Spain**, March 16 2000.
- Grbić M. "Alien" wasps and evolution of development, **Biology Department University of Barcelona, Spain**, March 13 2000.
- Grbić M. "Alien" wasps and evolution of development. **Cornell University, USA**, January 24 2000.
- Grbić M. Evolution of pattern formation in insects: Radical changes in development are associated with switch in the life history. **McMaster University, Hamilton, Canada**, November 26 1998.
- Grbić M. Evolution of pattern formation in insects: radical changes in development are associated with switch in the life history. **University of Oxford, Zoology Department, UK**, May 26 1998.
- Grbić M. Evolution of pattern formation in insects: radical changes in development are associated with switch in the life history. **University of Leiden, Institute of Ecological and Evolutionary Sciences, The Netherlands**, April 9 1998.
- Grbić M. Evolution of pattern formation in insects: radical changes in development are associated with switch in the life history. **University of Utrecht, Department of Molecular Biology, The Netherlands**, April 6 1998.

ANGAŽOVANJE U NASTAVI

- 1) Uspostavljanje zajedničkog PhD programa iz Bioinformatike između 'University of Western Ontario (Canada)' i 'University of Ghent (Belgium)' (2014).
- 2) Razvio je i predaje kurs Humane molekularne genetike (Bio4560B) na 'University Western Ontario'.
- 3) Razvio je i predaje potpuno novi kurs Genomike na 'University Western Ontario'.

U poslednjih pet godina bio je mentor i rukovodio sa 5 master teza, dve doktorske disertacije i angažovao je 7 postdoktoranata na naučnim projektima. Ocene studenata u poslednje tri godine su izmedju 4.8-6.0 (max. 6.0).

ZAKLJUČAK

Na osnovu iznetog referata evidentno je da kandidat, dr Miodrag Grbić, vanredni profesor na 'Western Ontario University' ispunjava uslove za izbor u gostujućeg profesora na Univerzitetu u Beogradu – Biološkom fakultetu, a na osnovu člana 65 Zakona o visokom obrazovanju i Pravilnika o uslovima i načinu angažovanja gostujućeg profesora na Univerzitetu u Beogradu i člana 129 Statuta Biološkog fakulteta.

Do sada je publikovao 45 radova u međunarodnim časopisima (23 rada - M21a, 12 - M21, 6 – M22, 4 – M23), uključujući tri rada u časopisu Nature i četiri rada u PNAS-u. Posebno želimo da istaknemo da su radovi publikovani u časopisu Nature iz tri različite istraživačke oblasti (odnos polova kod poliembričnih osa, molekularna genetika razvića i genomska istraživanja). Učestvovao je sa 34 saopštenja na međunarodnim naučnim skupovima i održao je 39 predavanja po pozivu, uglavnom na vodećim svetskim univerzitetima. Dobitnik je većeg broja nagrada za naučnu izuzetnost. Na osnovu višegodišnjeg pedagoškog iskustva kroz vrhunski naučnoistraživački rad, uvereni smo da će izbor dr Miodraga Grbića za gostujućeg profesora na Univerzitetu u Beogradu-Biološkom fakultetu znatno doprineti unapređenju nastave i nauke, pre svega u oblastima Genomike i Molekularne genetike razvića, koje kao kurseve predaje na Univerzitetu 'Western Ontario'. Na osnovu iznetog, predlažemo Nastavno-naučnom veću Biološkog fakulteta, da dr Miodraga Grbića, vanrednog profesora predloži za izbor u zvanje gostujućeg profesora Univerziteta u Beogradu-Biološkog fakulteta Veću grupacija Prirodno-matematičkih nauka, Univerziteta u Beogradu.

Beograd, 16.01. 2018

Prof. dr Željko Tomanović



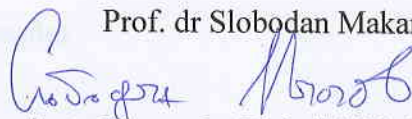
Univerzitet u Beogradu-Biološki fakultet

Prof. dr Dušanka Savić-Pavićević




Univerzitet u Beogradu-Biološki fakultet

Prof. dr Slobodan Makarov



Univerzitet u Beogradu-Biološki fakultet

Dr Nevena Veljković, naučni savetnik



Univerzitet u Beogradu-Institut za nuklearne nauke "Vinča"