

Miodrag (Mike) Grbic associate professor at the University of Western Ontario (Canada) leading Arthropod and agricultural genomic program.

Selected publications:

- Lozano-Pérez, A.A., Pagán, A., Zhurov, V. *et al.* The silk of gorse spider mite *Tetranychus lintearius* represents a novel natural source of nanoparticles and biomaterials. **Sci Rep** **10**, 18471 (2020).
<https://doi.org/10.1038/s41598-020-74766-7>
- Bensoussan, N., Dixit, S., Tabara, M. *et al.* Environmental RNA interference in two-spotted spider mite, *Tetranychus urticae*, reveals dsRNA processing requirements for efficient RNAi response. **Sci Rep** **10**, 19126 (2020).
<https://doi.org/10.1038/s41598-020-75682-6>
- Maraš, V., Tello, J., Gazivoda, A. *et al.* Population genetic analysis in old Montenegrin vineyards reveals ancient ways currently active to generate diversity in *Vitis vinifera*. **Sci Rep** **10**, 15000 (2020).
<https://doi.org/10.1038/s41598-020-71918-7>
- Nicolas Bensoussan, Vladimir Zhurov, Sota Yamakawa, Caroline H. O’Neil, Takeshi Suzuki, Miodrag Grbic and Vojislava Grbic (2018) The Digestive System of the Two-Spotted Spider Mite, *Tetranychus urticae* Koch, in the Context of the Mite-Plant Interaction. **Frontiers in Plant Science**, Vol. 9, article 1206. doi: 10.3389/fpls.2018.01206
- Takeshi Suzuki*, María Urizarna España*, Maria Andreia Nunes*, Vladimir Zhurov*, Wannes Dermauw, Masahiro Osakabe, Thomas Van Leeuwen, Miodrag Grbic, Vojislava Grbic. (2017). Protocols for the delivery of small molecules to the two-spotted spider mite, *Tetranychus urticae*. **PLOS1**.
- Santos-Matos, G, Wybouw, N ; Martins, NE ; Zele, F ; Riga, M ; Leitao, AB ; Vontas, J ; Grbic, 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)
- Astrid Bryona, Andre H. Kurlovs, Wannes Dermauw, Robert Greenhalgh, Maria Riga, Miodrag Grbic, Luc Tirry, Masahiro Osakabe, John Vontas, Richard M. Clark, Thomas Van Leeuwen. (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.
- Rioja C, Zhurov V, Bruinsma K, Grbic M, Grbic 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
- Sucena, E., Vanderberg, K., Zhurov V. Grbic, 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** Volume: 16 Issue: 4 Pages: 233-246

- Dermauw, W, Wybouw, N, Rombauts, S, Menten, B, Vontas, J, Grbic, M, Clark, RM, Feyereisen, R, Van Leeuwen, 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
- Miodrag Grbic´ et al. (2011) The genome of *Tetranychus urticae* reveals herbivorous pest adaptations. **Nature** Vol. 479: 487- 492.
- Miodrag Grbic´, Abderrahman Khila, Kwang-Zin Lee, Anica Bjelica, Vojislava Grbic´ Jay Whistlecraft, Lou Verdon, Maria Navajas and Lisa Nagy (2007) Mity model: *Tetranychus urticae*, a candidate chelicerate model organism. **Bioessays** 29: 489-496.
- Zhurov, V., Terzin, T. and Grbic, M. (2004) Early blastomere determines embryo proliferation and caste fate in a polyembryonic wasp. **Nature** 432:746-769.

Patents:

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

Examples of participation in industrial innovation

Co-founder of spinoff company Nanomitech (nanomitech.com) focused on commercialization of spider mite silk (2012-present)

Grants: Active:

Funding agency Eesi-Genomics (EU); grant title: Genomics of Neolithic Demographic Transition PIs: Sofija Stefanovic, Miodrag Grbic, Carles Lalueza Fox, Toni Gabaldon Budget: Eur **120,000** Period: 2019-2021.

Funding Agency: Serbian Ministry of Agriculture; grant title: Serbian Grapevine genetic diversity PIs: Zeljko Tomanovic, Miroslav Nikolic, Slavica Todoc, Miodrag Grbic, Jose Miguel Mmartinez Zapater. Budget: **100,000** Eur Period 2020-2021.

Funding agency Ontario Ministry of Research and Innovation Ontario Research Fund: grant title: 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. Grbic PI. Budget: **\$3,632,863** CAD Period: 2016-2022.

Funding agency: Natural Sciences and Engineering Research Council of Canada, grant title: Evolution of pattern formation in insects applicants: (NSERC discovery grant) Miodrag Grbic PI, amount: **\$210,00 CAD** period: 2018-2023.

