Curriculum Vitae

Personal information

Viktor Billes

Work experience

- March 2023 - present: assessor and coordinator at National Institute of Pharmacy and Nutrition, Budapest, Hungary. Main activities in the position: organizing, coordinating, and supporting the assessors' works related to centralised procedures, and making assessments.
- July 2017 - November 2022: assistant research fellow and then research fellow at ELKH-ELTE Genetics Research Group, TKI (Office for Research Groups Attached to Universities and Other Institutions, formerly belonged to Hungarian Academy of Sciences), Budapest, Hungary. Main activities in the position: Planning, leading, and conducting research projects; planning and performing experiments; data analysis and evaluation; writing manuscripts, giving talks and presentations; guidance and supervision of the work of undergraduate and graduate students and technicians; review of BSc and MSc theses and doctoral dissertations
- October 2017 - July 2021 and October 2013 - May 2014: assistant research fellow and then research fellow at Department of Genetics, Institute of Biology, Faculty of Science, ELTE Eotvos Lorand University, Budapest, Hungary. Main activities in the position: Planning, leading, and conducting research projects; planning and performing experiments; data analysis and evaluation; writing manuscripts, giving talks and presentations; guidance and supervision of the work of undergraduate and graduate students and technicians; review of BSc and MSc theses and doctoral dissertations
- May 2014 - September 2017: researcher at Velgene Three Ltd, Hungary. Main activities in the position: testing lead molecules in fruit fly (*Drosophila melanogaster*) models; planning and performing experiments; data analysis and evaluation; writing manuscripts, giving talks and presentations; guidance and supervision of the work of undergraduate and graduate student; review of BSc and MSc theses

Education and training

- March 2018: PhD. ELTE Eotvos Lorand University, Doctoral School of Biology, Programme of Classical and Molecular Genetics. Date of PhD degree conferment: 8th March 2018
- May 2015 - March 2018: PhD candidate at ELTE Eotvos Lorand University, Doctoral School of Biology, Programme of Classical

and Molecular Genetics, Budapest, Hungary.

- September 2009 - August 2012: PhD student at ELTE Eotvos Lorand University, Doctoral School of Biology, Programme of Classical and Molecular Genetics, Budapest, Hungary. Skills: classical and molecular genetics, biochemical, molecular biological, immunological and microbiological knowledge in theory and practice.
- September 2004 - June 2009: Biologist at ELTE Eotvos Lorand University, Faculty of Natural Sciences. Budapest, Hungary. Main subjects: genetics, molecular genetics, immunology, biochemistry, gene technology, cell biology, microbiology, anatomy, animal systematics, plant systematics, plant anatomy, chemistry, physics, mathematics, informatics.
    - September 2007- June 2009 Specialization: Molecular Biology and Biochemistry, Subspecialization: Genetics

Additional information

Publications

Pubmed:
https://pubmed.ncbi.nlm.nih.gov/?term=Billes+V%5BAuthor%5D&sort=date
Google Scholar:
https://scholar.google.com/citations?hl=en&user=8quy8CoAAAAJ

Research papers in peer-reviewed journals with first or shared first authorship:

Billes V*, Kovács T*, Manzéger A, Lőrincz P, Szincsák S, Regős A, Kulcsár PI, Korcsmáros T, Lukácsovich T, Hoffmann Gy, Erdélyi M, Mihály J, Takács-Vellai K, Sass M, Vellai T. 2018. Developmentally regulated autophagy is required for eye formation in Drosophila. *Autophagy* **14**: 1499-1519.

Billes V, Kovács T, Hotzi B, Manzéger A, Tagscherer K, Komlós M, Tarnóci A, Pádár Z, Erdős A, Bjelik A, Légrádi A, Gulya K, Gulyás B, Vellai T. 2016. AUTEN-67 (Autophagy Enhancer-67) Hampers the Progression of Neurodegenerative Symptoms in a Drosophila model of Huntington's Disease. *Journal of Huntington's disease* **5**: 133-147.

Kovács T*, **Billes V***, Komlós M*, Hotzi B, Manzéger A, Tarnóci A, Papp D, Szikszai F, Szinyákovics J, Rácz A, Noszál B, Veszelka S, Walter FR, Deli MA, Hackler L Jr., Alföldi R, Huzian O, Puskás LG, Liliom H, Tárnok K, Schlett K, Borsy A, Welker E, Kovács AL, Pádár Z, Erdős A, Légrádi A, Bjelik A, Gulya K, Gulyás B, Vellai T. 2017. The small molecule AUTEN-99 (autophagy enhancer-99) prevents the progression of neurodegenerative symptoms. *Scientific Reports* **7**: 42014.

Papp D*, Kovács T*, **Billes V***, Varga M, Tarnóci A, Hackler L, Jr., Puskás LG, Liliom H, Tárnok K, Schlett K, Borsy A, Welker E, Kovács AL, Pádár Z, Erdős A, Légrádi A, Bjelik A, Gulya K, Gulyás B, Vellai T. 2016. AUTEN-67, an autophagy-enhancing drug candidate with potent antiaging and neuroprotective effects. *Autophagy* **12**: 273-286.

* shared first authorship

Research papers in peer-reviewed journals with last authorship:

Manzéger A*, Tagscherer K*, Lőrincz P, Szaker H, Lukácsovich T, Pilz P, Kméczik R, Csikós GE, M., Sass M, Kovács T, Vellai T, **Billes VA**. 2021. Condition-dependent functional shift of two Drosophila Mtmr lipid phosphatases in autophagy control. *Autophagy*. **17**: 4010-4028.

Research papers in peer-reviewed journals as a co-author:

Kovács T*, Szinyákovics J*, **Billes V**, Murányi G, Varga VB , Bjelik A , Légrádi Á , Szabó M, Sándor S, Kubinyi E, Szekeres-Paracky C, Szocsics P, Lőke J, Mulder J, Gulyás B, Palkovits M, Gulya K, Maglóczky Z,Vellai T. 2022. A Conserved MTMR Lipid Phosphatase Increasingly Suppresses Autophagy in Brain Neurons During Aging. *Scientific Reports*, **12(1)**: 21817.

Csabai L*, Fazekas D*, Kadlecsik T*, Szalay-Bekő M, Bohár B, Madgwick M, Módos D, Ölbei M, Gul L, Sudhakar P, Kubisch J, Oyeyemi OJ, Liska O, Ari E, Hotzi B, **Billes VA**, Molnár E, Földvari-Nagy L, Csályi K, Demeter A, Pápai N, Koltai M, Varga M, Lenti K, Farkas IJ, Türei D, Csermely P, Vellai T, Korcsmáros T. 2022. SignaLink3: a multi-layered resource to uncover tissue-specific signaling networks. *Nucleic acids research* **50**: D701-D709.

Klionsky DJ, Abdel-Aziz AK, Abdelfatah S, Abdellatif M, Abdoli A, Abel S, Abeliovich H, Abildgaard MH, Abudu YP, Acevedo-Arozena A, ... **Billes VA**, ... et al. 2021. Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). *Autophagy* **8**: 1-382.

Klionsky DJ, Abdelmohsen K, Abe A, Abedin MJ, Abeliovich H, Acevedo, Arozena A, Adachi H, Adams CM, Adams PD, Adeli K, ... **Billes V**, ... et al. 2016. Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). *Autophagy* **12**: 1-222.

Not peer-reviewed publications in English (conference talks and abstracts):

Kovács T, Varga VB, Szikszai F, **Billes VA**, Szinyákovics J, Hotzi B, Puska G, Vellai T. 2019. Hemocytes regulate selective autophagy during regeneration of germline stem cells in Drosophila. XVII. Hungarian Molecular Life Sciences, Eger

Szinyákovics J, **Billes V**, Hotzi B, Murányi G, Bjelik A, Légrádi Á, Szabó M, Sándor S, Kubinyi E, Paracky C, Maglóczky Zs, Vellai T, Kovács T. 2019. EDTP and MTMR14 lipid phosphatases promote brain aging by progressively downregulating autophagy throughout adulthood. XVII. Hungarian Molecular Life Sciences, Eger

Tagscherer K, Manzéger A, **Billes VA**, Kovács T, Vellai T. 2019. Two myotubularin phosphatase, EDTP and Mtmr6, differentially regulate autophagy in Drosophila melanogaster. XVII. Hungarian Molecular Life Sciences, Eger

Billes VA, Manzéger A, Tagscherer K, Kovács T, Lőrincz P, Szaker H, Lukácsovich T, Csikos G, Sass M, Vellai T. 2019. Clarifying the regulatory roles of two Drosophila myotubularin-related lipid phosphatases, MTMR6 and EDTP, in autophagy. Keytone Symposia, Autophagy: From Model Systems to Therapeutic

Opportunities (B2), Santa Fe, New Mexico, USA

Billes VA, Manzéger A, Kovács T, Lőrincz P, Vellai T. 2017. Genetic compensatory mechanism during eye development in Atg (Autophagy-related gene) mutant Drosophila strains. Hungarian Molecular Life Sciences 2017, Eger

Kovács T, Szikszai F, Schuller D, Manzéger A, **Billes VA**, Szinyákovics J, Puska G, Vellai T. 2017. Regulation of lysosome-dependent cellular breakdown during the early spermatogenesis of Drosophila. Hungarian Molecular Life Sciences 2017, Eger

Kovács T, Szikszai F, Schuller D, Murányi G, Manzéger A, **Billes VA**, Puska G, Sándor Z, Vellai T. 2015. Autophagy-dependent regeneration of stem cells in the Drosophila male germline, Hungarian Molecular Life Sciences 2015, Eger

Billes VA, Kovács T, Lőrincz P, Regős Á. Manzéger A, Szincsák S, Erdélyi M, Mihály J, Sass M, Vellai T. 2015. Developmental autophagy is required for eye patterning in Drosophila. Hungarian Molecular Life Sciences 2015, Eger

Projects

ELTE Eotvos Lorand University and/or ELKH-ELTE Genetics Research Group, TKI

- 2010-2022: Analysis of EDTP and prolonging lifespan via enhanced autophagic activity in the fruit fly *Drosophila melanogatser*
- 2016-2021: Comparative analysis of the role of Mtmr6 and EDTP myotubularin phosphatases in autophagy in the larval fat body of *Drosophila melanogaster*
- 2016-2018: Unrevealing of genetic compensation mechanism in *Atg* mutant fly strains
- 2010-2018: Role of autophagy in the development of the compound eye of *Drosophila melanogaster*
- 2015-2017: Analysis of the role of *huntingtin* in autophagy in *Drosophila melanogaster*
- 2008-2010: Role of *myotubularin* (*mtm*) phosphatases in the regulation of autophagy in *Caenorhabditis elegans*
- 2007-2008: Role of *Hox* gene *ceh-13* in the vulval development of the nematode *Caenorhabditis elegans*

Velgene Three Ltd.

- 2014-2017: Examination the effects of lead molecules on autophagy and on neurodegenerative disease models in *Drosophila melanogaster*

(And some other basic/fundamental research projects which are not ready to share yet.)

Memberships

Member of the Hungarian Society of Geneticists

Other Relevant Information