



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B post-doc fellowship

Domanda concorso Assegno di Ricerca - Prof. Thomas Vaccari - Cod. ID: 5566

**Viktor András Billes**

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Billes
Name	Viktor András
Date of birth	06-12-1985

### PRESENT OCCUPATION

Appointment	Structure
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### EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Biologist	ELTE Eotvos Lorand University, Budapest, Hungary	2009
Specialization	Molecular biology, genetics	ELTE Eotvos Lorand University, Budapest, Hungary	2009
PhD	Classical and molecular genetics	ELTE Eotvos Lorand University, Budapest, Hungary	2018

### REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
2009	Association of Hungarian Geneticists	Szeged, Hungary



FOREIGN LANGUAGES

Languages	level of knowledge
English	B2

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2020	Scholarship of New National Excellence Program of the Ministry of Human Capacities (in postdoctoral category)
2016	Scholarship of New National Excellence Program of the Ministry of Human Capacities (in PhD candidate category)

TRAINING OR RESEARCH ACTIVITY

<p><b>Main responsibilities:</b></p> <ul style="list-style-type: none"><li>- planning, leading and conducting research projects</li><li>- guidance and supervision of the work of undergraduate and graduate students and technicians</li><li>- planning and performing experiments</li><li>- data analysis and evaluation</li><li>- writing manuscripts and giving talks and presentations</li></ul> <p><b>Research areas</b></p> <p><u>ELTE Eotvos Lorand University and/or ELKH-ELTE Genetics Research Group, TKI</u> (2007-2022) Examination the role and regulation of autophagy in <i>Drosophila melanogaster</i> (2016-2022) Examination of the role of Piwi proteins in tumour formation and in lifespan determination in <i>Drosophila melanogaster</i></p> <p><u>Velgene Three Ltd.</u> (2014-2017) Examination the effects of lead molecules on autophagy and on neurodegenerative disease models in <i>Drosophila melanogaster</i></p> <p><b>Research experience</b></p> <ul style="list-style-type: none"><li>- Maintenance and genetic work with invertebrate model animals <i>Drosophila melanogaster</i> and <i>Caenorhabditis elegans</i></li><li>- Cell culture (HEK293, HeLa)</li><li>- Molecular biologic techniques, DNA and RNA extractions, various PCRs, including semi-quantitative RT-PCR and qPCR, molecular cloning</li><li>- Fluorescence microscopy</li><li>- Immunohistochemistry</li><li>- Basic microbiological techniques</li><li>- Data analyses, including quantification and statistical evaluations</li><li>- Data visualization and basic programming in R</li></ul>
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PROJECT ACTIVITY

Year	Project
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2019-2022	Examination of the role of Piwi proteins in tumour formation in <i>Drosophila melanogaster</i>
2016-2022	Examination of the role of ectopic expression of Piwi proteins of life span in <i>Drosophila melanogaster</i>
2016-2021	Comparative analysis of the role of Mtmr6 and EDTP myotubularin phosphatases in autophagy in the larval fat body of <i>Drosophila melanogaster</i>
2016-2018	Unrevealing of genetic compensation mechanism in Atg mutant fly strains
2015-2017	Analysis of the role of <i>huntingtin</i> in autophagy in <i>Drosophila melanogaster</i>
2014-2017	Examination the effects of lead molecules on neurodegenerative disease models in <i>Drosophila melanogaster</i>
2014-2017	Examination the effects of lead molecules on autophagy <i>Drosophila melanogaster</i> model system
2010-2018	Role of autophagy in the development of the compound eye of <i>Drosophila melanogaster</i>
2010-2022	Analysis of EDTP in brain and examining lifespan in the case of enhanced autophagic activity in the fruit fly <i>Drosophila melanogaster</i>
2007-2010	Role of <i>myotubularin (mtm)</i> phosphatases in the regulation of autophagy in <i>Caenorhabditis elegans</i>
2007-2008	Role of <i>Hox</i> gene <i>ceh-13</i> in the vulval development of the nematode <i>Caenorhabditis elegans</i>

PATENTS

Patent
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CONGRESSES AND SEMINARS

Date	Title	Place
2019	Hemocytes regulate selective autophagy during regeneration of germline stem cells in <i>Drosophila</i>	Eger, Hungary
2019	EDTP and MTMR14 lipid phosphatases promote brain aging by progressively downregulating autophagy throughout adulthood.	Eger, Hungary
2019	Two myotubularin phosphatase, EDTP and Mtmr6, differentially regulate autophagy in <i>Drosophila melanogaster</i> .	Eger, Hungary
2019	Clarifying the regulatory roles of two <i>Drosophila</i> myotubularin-related lipid phosphatases, MTMR6 and EDTP, in autophagy	Santa Fe, NM, USA
2017	Genetic compensatory mechanism during eye development in Atg (Autophagy-related gene) mutant <i>Drosophila</i> strains.	Eger, Hungary
2017	Regulation of lysosome-dependent cellular	Eger, Hungary



	breakdown during the early spermatogenesis of <i>Drosophila</i>	
2015	Autophagy-dependent regeneration of stem cells in the <i>Drosophila</i> male germline	Eger, Hungary
2015	Developmental autophagy is required for eye patterning in <i>Drosophila</i> .	Eger, Hungary

## PUBLICATIONS

Books
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Articles in journals
A Conserved MTMR Lipid Phosphatase Increasingly Suppresses Autophagy in Brain Neurons During Aging, <i>Scientific Reports</i> , 2022
Signalink3: a multi-layered resource to uncover tissue-specific signaling networks. <i>Nucleic acids research</i> , 2022
Condition-dependent functional shift of two <i>Drosophila</i> Mtmr lipid phosphatases in autophagy control. <i>Autophagy</i> , 2021
Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). <i>Autophagy</i> , 2021
Developmentally regulated autophagy is required for eye formation in <i>Drosophila</i> . <i>Autophagy</i> , 2018
The small molecule AUTEN-99 (autophagy enhancer-99) prevents the progression of neurodegenerative symptoms. <i>Scientific Reports</i> , 2017
AUTEN-67 (Autophagy Enhancer-67) Hampers the Progression of Neurodegenerative Symptoms in a <i>Drosophila</i> model of Huntington's Disease. <i>Journal of Huntington's disease</i> , 2016
Guidelines for the use és interpretation of assays for monitoring autophagy (3rd edition). <i>Autophagy</i> , 2016
AUTEN-67, an autophagy-enhancing drug candidate with potent antiaging and neuroprotective effects. <i>Autophagy</i> , 2016

Congress proceedings
see in the "Congress and seminars" section

## OTHER INFORMATION

<b>Former workplaces and positions</b> <ul style="list-style-type: none"><li>- assistant research fellow and then research fellow at Department of Genetics, Institute of Biology, Faculty of Science, ELTE Eotvos Lorand University and ELKH-ELTE Genetics Research Group, TKI (Office for Research Groups Attached to Universities and Other Institutions, formerly belonged to Hungarian Academy of Science), Budapest, Hungary (2013-2015 and 2017-2022)</li><li>- researcher at Velgene Three Ltd (2014-2017)</li></ul>
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Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph



# UNIVERSITÀ DEGLI STUDI DI MILANO

1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: Budapest, Hungary 2023-01-07

SIGNATURE

