

# Curriculum vitae of the member of the research team

# Name, academic position and degree

### Dimitrinka Yordanova Atanasova-Dimitrova

Associate Professor, PhD at the Institute of Neurobiology, Bulgarian Academy of Sciences Professor, PhD at the Faculty of Medicine of Trakia University

# Affiliation – research organization, department

Institute of Neurobiology, Bulgarian Academy of Sciences, Department of Synaptic Signaling and Communications;

Department of Anatomy, Faculty of Medicine, Trakia University - Stara Zagora

### **Education**

Sofia University "St. Kliment Ohridski" specialty "Biology", Master of Biology - 2000 Institute of Experimental Morphology, Pathology and Anthropology with Museum, Bulgarian Academy of Sciences, Doctor of Morphology - 2015.

Obtained a specialty in Anatomy, Histology and Cytology in December 2019

### Academic positions in the last five years

Associate Professor of Animal and Human Physiology, Institute of Neurobiology, from 2018 until now.

Associate Professor of Morphology, Faculty of Medicine, Trakia University - Stara Zagora, from 2020 until now.

Professor of Morphology, Department of Anatomy, Faculty of Medicine, Trakia University - Stara Zagora

### Main research area and subareas

Experimental morphology, Histological techniques, Central nervous system, Neuromorphology, Immunofluorescence, Carotid body, Regulation of respiration, Immunocytochemistry, Neuronal tracing, Epilepsy - Kainate model of temporal lobe epilepsy, Pinealectomy, Mesencephalic trigeminal nucleus

#### Additional research areas and subareas

Alzheimer's disease, Neuroglia, Aging, Neurogenesis, Parkinson's disease, Confocal microscopy, Plastination techniques

# Specializations abroad and international collaborations

2019 - 3-month research visit with DAAD scholarship; Institute of Anatomy, University Medical Center, University of Rostock, Germany; Research stay for academics and scientists; Personal Ref. number: 91716127; Research Project Topic: Form Follows Function: "Morphological Diversity of Astrocytes in an Experimental Animal Model of Multiple Sclerosis."



2017 - one-month research visit at the Department of Genes and Behavior, Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

International cooperation: Institute of Physiology I.P. Pavlov, Russian Academy of Sciences, St. Petersburg

# Scientific awards and membership in scientific societies

2019 - Scientific award "Corresponding Member Dimitar Kadanov" for achievements in the field of morphology, presented at the XXIV Congress of the Bulgarian Anatomical Society in Stara Zagora Mineral Baths on 31.05.2019.

2014 - Third award for a poster presentation on the topic: "Histochemical localization of tripeptidyl aminopeptidase I in the rat carotid body" at the 3rd Balkan Scientific Conference on Biology, Plovdiv, Bulgaria, May 30 - June 1, 2014

# Membership in scientific organizations

International Federation of Associations of Anatomists

European Federation of Experimental Morphology

**Bulgarian Anatomical Society** 

Union of scientists - Stara Zagora branch

# Name, used in publications in foreign language:

Dimitrinka Y. Atanasova, Dimitrina Atanasova, Dimitrinka Atanasova

H index (according to Scopus or Web of Science): 14

Internet address with list of scientific publications (ResearcherID, Research gate, etc.):

https://www.researchgate.net/profile/Dimitrinka-Atanasova-3

http://orcid.org/0000-0003-1745-7755

https://bas.academia.edu/DimitrinkaAtanasova

**Total number of scientific publications: 95** 

From them with impact factor or impact rang: 55

Number of citations of the scientific publications: 598

Number of scientific publications in the last five years: 42

From them with impact factor or impact rang: 30

Number of citations of the scientific publications in the last five years: 400

# Selected scientific publications in the field of the research project

- 1. J. Tchekalarova, **D. Atanasova**, L. Kortenska, N. E. Lazarov, M. Shismanova-Doseva, Tz. Galchev, P. Marinov "Agomelatine alleviates neuronal loss through BDNF signaling in the post-status epilepticus model induced by kainic acid in rat", Brain Research Bulletin, 147, 22-35, 2019.
- 2. J. Tchekalarova, **D. Atanasova**, N. Lazarov "The Potential Therapeutic Role of the Melatoninergic System in Treatment of Epilepsy and Comorbid Depression", In "Frontiers in



- Clinical Drug Research CNS and Neurological Disorders", Atta-ur-Rahman (Ed.), Bentham Science Publishers, Volume 7, 1-31, 2019.
- 3. **D. Atanasova**, A. Dandov, N. Dimitrov, N. Lazarov "Histochemical and immunohistochemical localization of nitrergic structures in the carotid body of spontaneously hypertensive rats", Acta Histochemica, 122(2), 151500, 2020.
- 4. J. Tchekalarova, Tz. Stoyanova, Zl. Nenchovska, N. Ivanova, **D. Atanasova**, M. Atanasova, K. Georgieva "Effect of endurance training on diurnal rhythms of superoxide dismutase activity, glutathione and lipid peroxidation in plasma of pinealectomized rats", Neuroscience Letters, 716, 134637, 2020.
- 5. N. Tomov, **D. Atanasova**, N. Dimitrov "Is the newly described interstitial network the anatomical basis of acupuncture meridians? A commentary", The Anatomical Record. Advances in Integrative Anatomy and Evolutionary Biology, 303, 2169-2170, 2020.
- 6. H. Nocheva, R. Tashev, A. Bocheva, **D. Atanasova**, A. Dandov, N. Lazarov "Interactions between the endogenous cannabinoid system and the peptides of the Tyr-MIF-1 family after heat stress-induced analgesia". Biomedical Reviews, 31, 91-103, 2020.
- 7. **D. Atanasova**, N. Lazarov, D. S. Stoyanov, R. H. Spassov, A. B. Tonchev, J. Tchekalarova "Reduced neuroinflammation and enhanced neurogenesis following chronic agomelatine treatment in rats undergoing chronic constant light", Neuropharmacology, 197, 108706, 2021.
- 8. J. Tchekalarova, D. **Atanasova,** N. Lazarov "The role of inflammatory signaling in comorbid depression and epilepsy", in "The Neuroscience of Depression: Genetics, Cell Biology, Neurology, Behaviour and Diet", Academic Press, Elsevier, 20211, Chapter 13, 127-137, 2021.
- 9. K. Ilieva, M. Atanasova, **D. Atanasova**, L. Kortenska, J. Tchekalarova "Chronic agomelatine treatment alleviates icvAβ-induced anxiety and depressive-like behavior through affecting Aβ metabolism in the hippocampus in a rat model of Alzheimer's disease", Physiology & Behavior, 239, 113525, 2021.
- 10. N. Dimitrov, N. Tomov, **D. Atanasova**, S. Iliev, T. Tomova, D. Sivrev, Z. Goranova "Visible Meridian Phenomena after Acupuncture: A Series of Case Reports", Journal of Acupuncture and Meridian Studies, 50-57, 2021.
- 11. M. Shishmanova-Doseva, **D. Atanasova**, Y. Uzunova, L. Yoanidu, L. Peychev, P. Marinov, J. Tchekalarova "Effects of Lacosamide Treatment on Epileptogenesis, Neuronal Damage and Behavioral Comorbidities in a Rat Model of Temporal Lobe Epilepsy", International Journal of Molecular Sciences, 22(9), 4667, 2021.
- 12. M. Shishmanova-Doseva, **D. Atanasova**, L. Ioanidu, Y. Uzunova, M. Atanasova, L. Peychev, J. Tchekalarova "The anticonvulsant effect of chronic treatment with topiramate after pilocarpine-induced status epilepticus is accompanied by a suppression of comorbid behavioral impairments and robust neuroprotection in limbic regions in rats", Epilepsy & Behavior, 134, 108802, 2022.
- 13. N. Behrangi, L. Heinig, L. Frintrop, E. Santrau, J. Kurth, B. Krause, **D. Atanasova**, T. Clarner, A. Fragoulis, M. Joksch, H. Rudolf, S.G. Meuth, S. Joost, M. Kipp *"Siponimod ameliorates metabolic oligodendrocyte injury via the sphingosine-1 phosphate receptor 5"*, Proceedings of the National Academy of Sciences of the United States of America, 119(40), 2022. e2204509119. doi:10.1073/pnas.2204509119.



- 14. **D. Y. Atanasova**, A. D. Dandov, N. E. Lazarov "*Neurochemical plasticity of the carotid body in hypertension*", The Anatomical Record. Advances in Integrative Anatomy and Evolutionary Biology, 306(9), 2366-2379, 2023.
- 15. T. V. Kirov, **D. Y. Atanasova**, N. E. Lazarov "Neurochemical profile of the myenteric plexus in the rat colorectal region", The Anatomical Record. Advances in Integrative Anatomy and Evolutionary Biology, 306(9), 2292-2301, 2023.
- 16. N. E. Lazarov, **D. Y. Atanasova** "Neurochemical Anatomy of the Mammalian Carotid Body. In *Morphofunctional and Neurochemical Aspects of the Mammalian Carotid Body*" Cham: Springer Nature Switzerland, 63-103, 2023
- 17. L. Petrov, O. Stoilova, G. Pramatarov, H. Kanzova, E. Tsvetanova, M. Andreeva, A. Georgieva, **D. Atanasova**, S. Philipov, A. Alexandrova "Effect of Chitosan-Diosgenin Combination on Wound Healing", International Journal of Molecular Sciences 24(5), 5049, 2023.
- 18. B. Peshev, P. Ivanova, D. Krushovlieva, L. Kortenska, **D. Atanasova**, P. Rashev, N. Lazarov, J. Tchekalarova "Predatory Odor Exposure as a Potential Paradigm for Studying Emotional Modulation of Memory Consolidation—The Role of the Noradrenergic Transmission in the Basolateral Amygdala", International Journal of Molecular Sciences, 25(12), 6576, 2024.
- 19. R. Mihaylova, V. Angelova, J. Tchekalarova, **D. Atanasova**, P. Ivanova, R. Simeonova "Tailored Melatonin-and Donepezil-Based Hybrids Targeting Pathognomonic Changes in Alzheimer's Disease: An In Vitro and In Vivo Investigation", International Journal of Molecular Sciences, 25(11), 5969, 2024.

E-mail address for registration in the database of the Bulgarian National Science Fund

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Participation in projects supported by BNSF in the last five years

Competition (type and year): FUNDING COMPETITION FOR FUNDAMENTAL SCIENTIFIC RESEARCH - 2020

Number and date of the contract: KΠ-06-H41/4

Title: "Study of the influence of melatonin deficiency on some aging mechanisms in an experimental model"

Project coordinator: Prof. Jana Dimitrova Tchekalarova, PhD

Status of the project: (running, with intermediate or final report under review, completed)

**Evaluation of the project implementation (for completed projects):** 

Competition (type and year): FUNDING COMPETITION FOR FUNDAMENTAL SCIENTIFIC RESEARCH - 2022

Number and date of the contract: KΠ-06-H61/12 from 15.12.2022



Title: "Investigation of the role of neurogenesis in the modulatory influence of noradrenergic-mediated hippocampal consolidation in physiological and pathological conditions: New therapeutic approaches"

Project coordinator: Assoc. Prof. Dimitrinka Yordanova Atanasova-Dimitrova, PhD

Status of the project: (running, with intermediate or final report under review, completed)

**Evaluation of the project implementation (for completed projects):** 

Competition (type and year): FUNDING COMPETITION FOR FUNDAMENTAL SCIENTIFIC RESEARCH - 2022

Number and date of the contract: KΠ-06 H63/11 from 14.12.2022

Title: "Neuropharmacological studies of newly synthesized sulfonyl hydrazones and melatonin derivatives with cholinesterase inhibitory activity in models of Alzheimer's disease and melatonin deficiency"

Project coordinator: Assoc. Prof. Violina Trifonova Stoyanova, PhD

Status of the project: (running, with intermediate or final report under review, completed)

**Evaluation of the project implementation (for completed projects):** 

Participation in projects supported by other sources in the last five years

Financing organization: Ministry of Education and Science

Type of the competition and year: 2018

Number or acronym of the project: Д01-217/30.11.2018 BioActivMed

Title: National scientific program "Innovative low-toxic biologically active agents for precision

medicine"

Project coordinator: Prof. Reni Emil Kalfin, PhD

Status of the project: (running, with intermediate or final report under review, completed)

**Financing organization: COST** 

Type of the competition and year: 2018

Number or acronym of the project: CA 18216 VascAgeNet

Title: Network for Research in Vascular Ageing

Project coordinator: Prof. Jana Dimitrova Tchekalarova, PhD

Status of the project: (running, with intermediate or final report under review, completed)

Financing organization: Faculty of Medicine at Sofia University "St. Kliment Ohridski"

Type of the competition and year: University 2020

Number or acronym of the project: 80-10-152/24.04.2020

Title: "Investigation of the neurotrophic nature of the cell population in the carotid body of

spontaneously hypertensive rats"



Project coordinator: Assoc. Prof. Ivan Ilkov Maslarski, PhD

Status of the project: (running, with intermediate or final report under review, completed)

Financing organization: Faculty of Medicine at Sofia University "St. Kliment Ohridski"

Type of the competition and year: University 2020

Number or acronym of the project: 80-10-109/25.03.2021

Title: "Morphological and neuropeptide characterization of carotid body in spontaneously

hypertensive rats"

Project coordinator: Assoc. Prof. Ivan Ilkov Maslarski, PhD

Status of the project: (running, with intermediate or final report under review, completed)

Financing organization: Medical University of Sofia

Type of the competition and year: University 2021

Number or acronym of the project:

Title: "Structural and neurochemical features of neuroepithelial bodies in spontaneously

hypertensive rats"

Project coordinator: Prof. Dr. Nikolai Elenkov Lazarov, MD, PhD, DSc

Status of the project: (running, with intermediate or final report under review, completed)

Financing organization: Faculty of Medicine at Trakia University - Stara Zagora

Type of the competition and year: University 2022

Number or acronym of the project: 5/2022

Title: "Neurochemical plasticity of the carotid body in hypertension"

Project coordinator: Assoc. Prof. Dimitrinka Atanasova-Dimitrova, PhD

Status of the project: (running, with intermediate or final report under review, completed)

Financing organization: Faculty of Medicine at Trakia University - Stara Zagora

Type of the competition and year: University 2023

Number or acronym of the project: 8/2023

Title: "Age-related changes of the enteric nervous system in the lower parts of the digestive

tract"

Project coordinator: Assoc. Prof. Dimitrinka Atanasova-Dimitrova, PhD

Status of the project: (running, with intermediate or final report under review, completed)