


Curriculum vitae

	Name, academic position and degree
	prof. Alexander Zlatkov, PhD, DSc
Affiliation – research organization, department	
Department of Pharmaceutical chemistry, Faculty of Pharmacy, Medical University - Sofia	
Education	
2020 r. DSc in Pharmaceutical chemistry (Substituted methylxanthines - matrix for obtaining compounds with potential effect in neurodegenerative diseases)	
2016 – 2019 r. – Specialization in Toxicology and Toxicological Analysis, MU-Sofia	
2005 – 2008 r. – Specialization in organization and economics of distribution and pharmacy practice, MU-Sofia	
1991 - 1994 r. – Specialization in Analysis of drugs, MU-Sofia	
1987 - 1990 r. – PhD in Pharmaceutical chemistry (Synthesis and research of 8-substituted 1, 3, 7-trimethylxantine derivatives with biological activity)	
1980 - 1985 r. – Master in Pharmacy, MU-Sofia	
Academic positions in the last five years	
2013 r. – until now – professor in Pharmaceutical chemistry, Department of Pharmaceutical chemistry, Faculty of pharmacy, MU - Sofia	
2001 r. – 2013 r. – assoc. professor in Pharmaceutical chemistry, Department of Pharmaceutical chemistry, Faculty of pharmacy, MU - Sofia	
1994 – 2001 r. – chief assistant in Pharmaceutical chemistry, Department of Pharmaceutical chemistry, Faculty of pharmacy, MU - Sofia	
Main research area and subareas	
Pharmaceutical and medicinal chemistry, Organic synthesis, Drug design, Analysis of drugs and biologically active compounds including in biological media	
Additional research areas and subareas	
In vitro evaluations, toxicological evaluations, neuro- and hepato-toxicity evaluations	
Specializations abroad and international collaborations	
Scientific awards and membership in scientific societies	
1990 – until now – Bulgarian Pharmaceutical Science Society	

2019- until now – Bulgarian Toxicology Association

2019 – until now – European Society of Toxicology (EUROTOX)

2019-until now International Union of Toxicology (IUTOX)

Scientific publications in the field of the research project

- Kondeva-Burdina M, Mitkov J, Georgieva M, Andonova L, Tzankova V, Danchev N, **Zlatkov A.** Cytotoxicity, brain antihypoxic activity and antioxidant properties of new derivatives of caffeine-8-thioglycolic acid. *Comptes Rendus de L'Academie Bulgare des Sciences* 2016; 69(4): 521-528.
- Kondeva-Burdina M, Georgieva M, Kasabova-Angelova A, Tzankova V, **Zlatkov A.** Preliminary *in vitro* evaluation of neuroprotective and monoamine oxidase type B inhibitory effects of newly synthesized 8-aminocaffeines. PERSPECTIVE. *Neural Regeneration Research* 2019; 14(6): 971-972, DOI: 10.4103/1673-5374.250573.
- Kasabova-Angelova AI, Tzankova D, Mitkov J, Georgieva M, Tzankova V, **Zlatkov AI**, Kondeva-Burdina M. Xanthine derivatives as agents affecting non-dopaminergic neuroprotection in Parkinson`s disease. *Current Medicinal Chemistry* 2020; 27(12); 2021-2036; DOI:[10.2174/0929867325666180821153316](https://doi.org/10.2174/0929867325666180821153316),
- Mitkov J, Kasabova-Angelova AI, Kondeva-Burdina M, Tzankova V, Tzankova D, Georgieva M, **Zlatkov AI.** Design, Synthesis and Evaluation 8-S-substituted 1,3,7-trimethylxanthine hydrazones with *in vitro* neuroprotective and MAO-B activity. *Medicinal Chemistry* 2020; 16(3): 326-339; DOI: 10.2174/1573406415666190531121927
- Kasabova-Angelova AI, Kondeva-Burdina M, Mitkov J, Georgieva M, Tzankova V, **Zlatkov AI.** Neuroprotective and MAOB inhibitory effects of series caffeine-8-thioglycolic acid amides. *Brazilian Journal of Pharmaceutical Sciences* 2020; 56, e18255:1-9; <https://dx.doi.org/10.1590/s2175-97902019000318255>
- Kondeva-Burdina M, Valkova I, Andonova L, Georgieva M, Tzankova V, **Zlatkov AI.** Quantitative structure-hepatotoxicity assessment of series arylpiperazine-N1-substituted theobromine derivatives. *FARMACIA*, 2020; 68(1): 56-64; <https://doi.org/10.31925/farmacia.2020.1.9>
- Georgieva M, Mateev E, Tzankova D, **Zlatkov AI.** (2021) Microwave-assisted synthetic approaches to biologically active n-based five-membered heterocycles as response to green chemistry. *Rev. Roum. Chim.*, 66(12), 873–894. DOI: 10.33224/rrch.2021.66.12.01
- Mitkov J, Kondeva-Burdina M, Peikova L, Georgieva M, **Zlatkov AI.** Design, synthesis and evaluation of semi- and thiosemicarbazides containing a methylxanthine moiety with *in vitro* neuroprotective and MAO-B inhibitory activities. *Biotechnology & Biotechnological Equipment*, 2022; 36(1): 486-499; DOI: 10.1080/13102818.2022.2098819
- Andonova L, Georgieva M, Atanasova M, Valkova I, Doytchinova I, Simeonova R, Zheleva-Dimitrova D, **Zlatkov AI.** *In silico*, *in vitro* and *in vivo* assessment of acetylcholinesterase inhibitory activity of theobromine derivatives containing an arylpiperazine fragment. *Letters in Drug Design & Discovery*, 2022; DOI: 10.2174/1570180819666220827162711, *in press*.
- Kondeva-Burdina M, Mitkov J, Valkova I, Peikova L, Georgieva M, **Zlatkov AI.** Quantitative structure-neurotoxicity assessment and *in-vitro* evaluation of neuroprotective and MAOB inhibitory activities of series N'-substituted 3-(1,3,7-trimethyl-xanthin-8-ylthio)propanehydrazides. *Molecules*, 2022, 27: 5321-5343; <https://doi.org/10.3390/molecules27165321>
- Mateev E, Valkova I, Georgieva M, **Zlatkov AI.** Assessing the performance of GOLD, Glide and MM-GBSA on a dataset of tuberculostatics. *Letters in Drug Design & Discovery*, 2022; 19; DOI: [10.2174/1570180819666220512115015](https://doi.org/10.2174/1570180819666220512115015).
- Mateev E, Georgieva M, **Zlatkov A.** (2022) *In silico* identification of novel SARS-CoV-2 main protease and non-structural protein 13 (nsp13) inhibitors through consensus docking and free binding energy calculations. *Comb. Chem. High Throughput Screen.* DOI:10.2174/1386207325666220818141112

Participation in projects supported by BNSF in the last five years

Competition (type and year):

Number and date of the contract:

Title:

Project coordinator:

Status of the project:

Evaluation of the project implementation (for completed projects):

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

Financing organization:SMS at MU-Sofia

Type of the competition and year:Competition **Grant 2017**

Number or acronym of the project:Contract № D-90/2017

Title: Synthesis of 1-substituted methylxanthine derivatives, molecular modeling and investigation of putative anticholinesterase activity

Project coordinator: **prof. Al. Zlatkov, DSc**

Status of the project: **completed.**

Financing organization:SMS at MUSofia

Type of the competition and year:Competition **Grant 2021**

Number or acronym of the project: Contract № D-10/2021

Title: Molecular modeling, synthesis and investigation of MAO inhibitory effect of novel N-pyrrolylcarboxamides

Project coordinator: **prof. Al. Zlatkov, DSc**

Status of the project: **completed.**

Financing organization:SMSatMUSofia

Type of the competition and year:Competition **Grant 2022**

Number or acronym of the project: Contract № D-106/2022

Title: Structure-based virtual reprofiling of FDA-approved drug substances as potential agents for the treatment of Alzheimer's disease

Project coordinator: **prof. Al. Zlatkov, DSc**

Status of the project: **running.**