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Doctoral School of Integrative Biology

1. PhD Student:

Name BULZU, First name Paul-Adrian

e-mail: paul.bulzu@hbu.cas.cz

2. Doctorate

2.1. PhD thesis title: ASGARD ARCHAEA FROM SALINE SAPROPELS PROVIDE NEW INSIGHTS INTO THE ARCHAEOAL ANCESTRY OF EUKARYOTES

2.2. PhD coordinator: prof. dr. Horia Leonard BANCIU

2.3. Date of PhD thesis defense: 11 JULY 2019, 09:00

2.4. Grade: EXCELENT

3. Scientific articles published in:

3.1. Impact factor journals (IF, AIS):

3.1.1. **Bulzu, P.-A.***, Andrei, A.-S.*, Salcher, M. M., Mehrshad, M., Inoue, K., Kandori, H., Beja, O., Ghai, R. and Banciu, H. (2019) 'Casting light on Asgardarchaeota metabolism in a sunlit microoxic niche', Nature Microbiology, Letter, DOI: [10.1038/s41564-019-0404-y](https://doi.org/10.1038/s41564-019-0404-y). IF: 15.54; AIS: 7.458

3.1.2. Inoue, K., Tsunoda, S.P., Singh, M., Tomida, S., Hososhima, S., Konno, M., Nakamura, R., Watanabe, H., **Bulzu, P.-A.**, Banciu, H.L., Andrei, A.-Ş., Uchihashi, T., Ghai, R., Béjà, O. & Kandori, H. (2020). Schizorhodopsins: A family of rhodopsins from Asgard archaea that function as light-driven inward H⁺ pumps. Science Advances 6 (15): eaaz2441. doi:[10.1126/sciadv.aaz2441](https://doi.org/10.1126/sciadv.aaz2441). IF: 12.53; SJR: 6.026 (2019)

3.1.3. Salcher M., Andrei A., **Bulzu P.**, Keresztes Z.G., Banciu H.L., Ghai R. (2020) Visualization of Lokiarchaeia and Heimdallarchaeia (Asgardarchaeota) by fluorescence in situ hybridization and catalyzed reporter deposition (CARD-FISH) mSphere 5 : e00686-20. DOI: doi.org/10.1128/mSphere.00686-20. IF: 4.280 (2019)

3.1.4. Lupan, I., **Bulzu, P.**, Popescu, O. and Damert, A. (2015) 'Lineage specific evolution of the VNTR composite retrotransposon central domain and its role in retrotransposition of gibbon LAVA elements', BMC Genomics, 16(1). DOI: [10.1186/s12864-015-1543-z](https://doi.org/10.1186/s12864-015-1543-z). IF: 4.318; SJR: 1.176



3.1.5. Matetovici, I., Sajgo, S., Ianc, B., Ochis, C., **Bulzu, P.**, Popescu, O. and Damert, A. (2016) 'Mobile element evolution playing jigsaw – SINEs in gastropod and bivalve mollusks', *Genome Biology and Evolution*, p. evv257. DOI: [10.1093/gbe/evv257](https://doi.org/10.1093/gbe/evv257). IF: **4.267**; SJR: **2.65**

3.1.6. Cristea, A., Baricz, A., Leopold, N., Floare, C. G., Borodi, G., Kacso, I., Tripon, S., **Bulzu, P. A.**, Andrei, A.-Ș., Cadar, O., Levei, E. A. and Banciu, H. L. (2018) 'Polyhydroxybutyrate production by an extremely halotolerant *Halomonas elongata* strain isolated from the hypersaline meromictic Fără Fund Lake (Transylvanian Basin, Romania)', *Journal of Applied Microbiology*, 125(5), pp. 1343–1357. DOI: [10.1111/jam.14029](https://doi.org/10.1111/jam.14029). IF: **2.754**

3.2. IDB journals:

3.2.1. **Bulzu, P.-A.***, Cristea, A.*, Buda, D. M., Banciu, H. L. (2019) 'Asgardarchaeota – a Novel Prokaryotic Group Discovered in Aquatic Sediments that Might Shed Light on the Origin and Early Evolution of Eukaryotes', ISSN 2067-743X, 11th edition of the 'Air and Water - Components of Environment' -

3.2.2. Buda, D. M.*, **Bulzu, P.-A.***, Cristea, A., Banciu, H. L. (2019) 'The Saline Aquatic Systems as 'Natural Reservoirs' for Microorganisms with Current and Potential Applications', ISSN 2067-743X, 11th edition of the 'Air and Water - Components of Environment'

3.3. Book chapters:

3.3.1. Andrei, A.-Ș.*, **Bulzu, P.-A.*** and Banciu, H.L. (2020). Blossoms of Rot: Microbial Life in Saline Organic-Rich Sediments. In *Extremophiles as Astrobiological Models* (eds J. Seckbach and H. Stan-Lotter). <https://doi.org/10.1002/9781119593096.ch3>

3.3.2. Arsene, C. T. C., Ardevan, D. and **Bulzu, P.** (2014) 'Reverse engineering methodology for bioinformatics based on genetic programming, differential expression analysis and other statistical methods', *Lecture Notes in Computer Science* (including subseries *Lecture Notes in Artificial Intelligence* and *Lecture Notes in Bioinformatics*), vol. 8452, DOI: [10.1007/978-3-319-09042-9_12](https://doi.org/10.1007/978-3-319-09042-9_12).

3.3.3. Birlutiu, A., Ardevan, D., **Bulzu, P.**, Pinte, C. and Floares, A. (2014) 'Integration of clinico-pathological and microRNA data for intelligent breast cancer relapse prediction systems', *Lecture Notes in Computer Science* (including subseries *Lecture Notes in*



Artificial Intelligence and Lecture Notes in Bioinformatics), vol. 8452, DOI: [10.1007/978-3-319-09042-9_13](https://doi.org/10.1007/978-3-319-09042-9_13).

4. Scientific conferences/symposia:

4.1. International conferences:

4.1.1. Paul-Adrian Bulzu, Adrian-Stefan Andrei, Rohit Ghai, Maliheh Mehrshad, Horia Banciu, "A link to the past: newly recovered Asgard genomes reinforce the archaeal eukaryotic ancestry", 17th International Symposium on Microbial Ecology (ISME), 12-17 August 2018, Leipzig, Germany (oral presentation)

4.1.2. Paul-Adrian Bulzu, Adrian-Stefan Andrei, Horia L. Banciu, (2017). "Shedding light on the Black Sea's neritic microbiome through genome-resolved metagenomics" (Oral Presentation), International Conference - Young Researchers in Sciences, 14-19 August 2017, Cluj-Napoca, Romania (oral presentation)

4.1.3. Paul-Adrian Bulzu, Iulia Lupan, Octavian Popescu, Annette Damert, (2015). "Lineage specific evolution of the VNTR composite retrotransposon central domain and its role in retrotransposition of gibbon LAVA elements" (Poster), International Conference of the Romanian Society of Biochemistry and Molecular Biology, 17-18 September 2015 (oral presentation)

6. Visibility:

6.1. Google Scholar: <https://scholar.google.com/citations?user=tkagThwAAAAJ&hl=en>

6.2. ResearchGate: https://www.researchgate.net/profile/Paul_Bulzu

6.3. AcademicTwitter: <https://twitter.com/SmallThingsLab>

6.4. Institute of Hydrobiology (Czech Academy of Sciences), Staff:
<https://www.hbu.cas.cz/en/staff/profil/24809/>

Date 31.01.2021

Signature