

Editorial

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Tempora mutantur et nos mutamur in illis

Welcome to Bio-Algorithms and Med-Systems (BAMS)

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"Times are changing and we are changing with them." This hexameter has appeared since the 16th century and accompanies us in many paraphrases and translations, such as „*Tempora mutantur et nos mutamur in ipsis*” (Time is changing and we are in time, by Andreas Bardonius) [1]. Over time, our research problems, methodology and ways of disseminating scientific information also change.

The first issue of the journal was published in 2005 as a result of the May conference in the series "Cybernetic modeling of biological systems", and the issue was entirely edited by prof. Irena Roterman-Konieczna, founder and longtime editor of the journal [2]. In the final discussion summarizing this conference, Prof. Roterman-Konieczna described the idea of establishing an interdisciplinary forum, enabling mutual contacts between representatives of various fields of science, including working contacts, the journal Bio-Algorithms and Med-Systems (BAMS).

BAMS has been successfully such a "forum" for over 17 years. From today's perspective, the scale of this forum seemed small, if only because of the Polish editorial house, but it was a nationwide journal, read and edited by a scientific team of international reputation. In the first issue of the journal we meet the names of scientists and professors, such as Leszek Konieczny, Andrzej Szczeklik, Piotr Thor, Jan Trąbka, Antoni Grzanka, Piotr Franaszczuk, Kalina Kawecka-Jaszcz, Jerzy Włodarski, Zbigniew Mikrut, but also young scientists such as Piotr Augustyniak, Mariusz Duplaga, Aleksandra Jung, Andrzej Kononowicz and many others.

BAMS was distributed in a book form, published every six months.

After these early years of groundbreaking work by the editorial team of Prof. Roterman-Konieczna, with the support from the very beginning of professors Ryszard Tadeusiewicz (founding father) and Leszek Konieczny, the publishing house was launched. The first issue under the de Gruyter logo was published in June 2012 (ten years ago), as a quarterly, available by subscription *via* the publisher's platform [3]. In the editorial work, Zdzisław Wiśniowski turned out to be a great support, being a relay on the line between the publishing house and the editorial office, serving as the technical editor.

"*Tempora mutantur et nos mutamur in illis*", with the new times came the era of open science and open access (OA) to articles. Following this lead, the new editorial team, which includes me (Ewa Ł. Stępień), appointed in 2022 as the editor-in-chief of the BAMS journal, has started cooperation with the new publisher *Sciendo*. The new editorial team of the Editorial Office is a group of proven collaborators and authors whose articles have contributed to building the BAMS brand (P. Moskal, R. Tadeusiewicz, I. Roterman – Konieczna, A. Kononowicz, F. Polticelli). Among the 10 best cited articles of the journal, there are five articles whose co-author is prof. Paweł Moskal [4-8], three co-authored by Prof. Ryszard Tadeusiewicz [9-11], one written by professors Fabio Polticelli [12], and one by professors Leszek Konieczny and Irena Roterman-Konieczna [13].

I have been associated with the BAMS journal for a short time, unlike my forerunners, I was more interested in biology and medicine than bioinformatics or computational methods. However, looking at my own interests and scientific achievements, I can say that most of my work is a study on the border of many fields and disciplines. My first experience with BAMS was the publication last year (2021) together with prof. Paweł Moskal of the special issue "*New trends in theranostics*" [14].

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If ‘multidisciplinarity’ is my first mantra, then “collaborations” would be my second. I work with many research teams in Poland and abroad, but the closest to my heart is cooperation with the group of Prof. Paweł Moskal, the J-PET group, which in our research combines activities supporting the use of algorithms, methods of developing medical image reconstruction, including the positronium image [15].

BAMS is a truly multidisciplinary journal in biophysics, bioengineering, medicine and systems biology. All these will undoubtedly influence the BAMS publishing program in the coming years. Thus, our task will remain unchanged: serving the scientific community. However, the way we do this will continue to evolve as science and scientists change within over time.

The last but not least is the new cover of BAMS. This extraordinary work of art was designed and made by our collaborator, a biophysicist Dr Bartosz Leszczyński. In his work on the cover design, he used algorithms based on the Turning pattern to create a brain-like “system”. I am confident that BAMS will be able to operate in this fashion, we have an outstanding team of Editorial Board and professional editorial team. I will bring my passion for science, willingness to work together and desire to learn for BAMS.

Ewa Ł. Stępień

Editor-in-Chief

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References

- [1] <https://educalingo.com/pl/dic-de/tempora-mutantur>
- [2] *Bio-Algorithms and Med-Systems* 2006;1 (1-2)
- [3] *Bio-Algorithms and Med-Systems* 2012;8 (1)
- [4] Pałka M, Moskal P, Bednarski T, Białas P, Czerwiński E, Kapton Ł, et al. A novel method based solely on field programmable gate array (FPGA) units enabling measurement of time and charge of analog signals in positron emission tomography (PET). *Bio-Algorithms and Med-Systems* 2014;10(1): 41-45.
<https://doi.org/10.1515/bams-2013-0104>
- [5] Korcyl G, Moskal P, Bednarski T, Białas P, Czerwiński E, Kapton Ł, et al. Trigger-less and reconfigurable data acquisition system for positron emission tomography. *Bio-Algorithms and Med-Systems* 2014;10(1): 37-40.
<https://doi.org/10.1515/bams-2013-0115>
- [6] Słomski A, Rudy Z, Bednarski T, Białas P, Czerwiński E, Kapton Ł, et al. 3D PET image reconstruction based on the maximum likelihood estimation method (MLEM) algorithm. *Bio-Algorithms and Med-Systems* 2014;10(1): 1-7. <https://doi.org/10.1515/bams-2013-0106>
- [7] Krzemień W, Silarski M, Stola K, Trybek D, Bednarski T, Białas P, et al. J-PET analysis framework for the prototype TOF-PET detector. *Bio-Algorithms and Med-Systems* 2014;10(1): 33-36.
<https://doi.org/10.1515/bams-2013-0109>
- [8] Alavi A, Werner T, Stępień E, Moskal P. Unparalleled and revolutionary impact of PET imaging on research and day to day practice of medicine. *Bio-Algorithms and Med-Systems*. 2021;17(4): 203-212.
<https://doi.org/10.1515/bams-2021-0186>
- [9] Tadeusiewicz R. Neural networks as a tool for modeling of biological systems. *Bio-Algorithms and Med-Systems*. 2015;11(3): 135-144.
<https://doi.org/10.1515/bams-2015-0021>
- [10] Jaworek-Korjakowska J, Tadeusiewicz R. Hair removal from dermoscopic color images. *Bio-Algorithms and Med-Systems*. 2013;9(2): 53-58.
<https://doi.org/10.1515/bams-2013-0013>
- [11] Jaworek-Korjakowska J, Tadeusiewicz R. Design of a teledermatology system to support the consultation of dermoscopic cases using mobile technologies and cloud platform. *Bio-Algorithms and Med-Systems*. 2015;11(1): 53-58. <https://doi.org/10.1515/bams-2015-0004>
- [12] Toti D, Atzeni P, Polticelli F. Automatic Protein Abbreviations Discovery and Resolution from Full-Text Scientific Papers: The PRAISED Framework. *Bio-Algorithms and Med-Systems*. 2012;8(1): 13.
<https://doi.org/10.2478/bams-2012-0002>
- [13] Chłopaś K, Jagusiak A, Konieczny L, Piekarska B, Roterman I, Rybarska J, Stopa B, Zemanek G, Bielańska E, Piwowar P, Sadlik K. The use of Titan yellow dye as a metal ion binding marker for studies on the formation of

specific complexes by supramolecular Congo red. *Bio-Algorithms and Med-Systems*. 2015;11(1): 9-17.
<https://doi.org/10.1515/bams-2015-0001>

[14] Moskal P, Stępień E. New trends in theranostics. *Bio-Algorithms and Med-Systems*. 2021;17(4): 199-202.
<https://doi.org/10.1515/bams-2021-0204>

[15] Moskal P, Stępień E. Positronium as a biomarker of hypoxia. *Bio-Algorithms and Med-Systems*. 2021;17(4): 311-319. <https://doi.org/10.1515/bams-2021-0189>