

Open Access to Quality Biomedical Experimental and Clinical Data and Data-based Models

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Dear Reader,

We are proud to present to you the pilot issue of the Biomedical Data Journal (BMDJ) – the first in the series *datajournals.eu* that aims to speed up development and implementation of science to the benefit of our societies through open access to high-quality data. Our ambition is to establish BMDJ, and the series as a whole, as the European portal to open data.

A peer-reviewed journal, BMDJ aims to facilitate the presentation, validation, use, and re-use of datasets, with focus on publishing biomedical datasets that can serve as a source for simulation and computational modelling of diseases and biological processes. Computational modelling can bridge the gap between experiments and patients by integrating data obtained from experimental cell and animal based models to patients. Furthermore, datasets availability is critical for training, optimization and validation of ‘integrative’ mathematical models based on experimental (cell and animal datasets) and clinical observations (human datasets).

The papers in the journal, as well as the respective datasets adhere to highest standards of “gold” open access.¹

BMDJ is launched within the EU-sponsored OpenScienceLink (OSL) project. The process of BMDJ publication, including trends identification, submissions, review, linking, sharing, and performance evaluation, as well as the utilisation of published datasets and results are supported by the OSL platform.²

This pilot issue presents the rationale for launching a data journal in the biomedical field and the foundations of our editorial policy,³ as well as the policy of the European Commission on open-access to scientific publications and research data in Horizon 2020.¹ The third

article examines the use of datasets as a basis for computational modelling of diseases, with focus on cancer.⁴

The second group of papers analyses the need for open access, structured data of assured quality in the fields of clinical brain research,⁵ endocrine research,⁶ cardiology research,⁷ and drug discovery.⁸

The final section looks at two specific aspects: the legal challenges of publishing open-access biomedical data⁹ and the information infrastructure, supporting the formulation of the journal policy, the publication process, and impact assessment.²

We look forward to your contribution and invite you to visit the BMDJ website to access published papers and datasets and find information on general and field specific calls for papers.

References

¹ Guedj D, Ramjoué C. European Commission Policy on Open-Access to Scientific Publications and Research Data in Horizon 2020. *Biomed Data J.* 2015;1(1):11-14. DOI: 10.11610/bmdj.01102.

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⁴ Kourou K, Fotiadis DI. Computational Modelling in Cancer: Methods and Applications. *Biomed Data J.* 2015;1(1):15-25. DOI: 10.11610/bmdj.01103.

⁵ Bunevicius A. The Need for Open-access, Structured Data in Clinical Brain Research. *Biomed Data J.* 2015;1(1):27-32. DOI: 10.11610/bmdj.01104.

⁶ Mastorci F, Iervasi G. The Need for Open-access, Structured Data in Endocrine Research. *Biomed Data J.* 2015;1(1):33-35. DOI: 10.11610/bmdj.01105.

⁷ Pingitore A, Carpeggiani C. The Need for Open-access Structured Data in Cardiology Research. *Biomed Data J.* 2015;1(1):36-38. DOI: 10.11610/bmdj.01106.

⁸ Zhang Y. Open-access and Structured Data in Drug Discovery. *Biomed Data J.* 2015;1(1):39-41. DOI: 10.11610/bmdj.01106.

⁹ Hugelier S. Publishing Open-Access Biomedical Data: Legal Challenges. *Biomed Data J.* 2015;1(1):43-51. DOI: 10.11610/bmdj.01108.