

178 Biofilms data standardisation and interchange: first year experience of the BiofOmics platform

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As biofilm research has developed into a data-intensive discipline, the need for suitable bioinformatics approaches became compelling to manage and validate individual experiments, and also to execute intra- and inter-laboratory large-scale comparisons. However, collection and gathering of data is often troublesome, as biofilm data is widespread across *ad hoc*, non-standardized and private individual files. BiofOmics (<http://biofomics.org/>) is the first publicly accessible Web platform specialized in the management and analysis of data derived from biofilm studies (Lourenço *et al.*, 2012). The aim of this work is to report BiofOmics usage experience at two fronts: 1) data submission, namely issues regarding data standardization and data structuring; 2) tool usage, i.e. user experience on data submission and search facilities. These insights are valuable to calibrate BiofOmics functionality, ensuring that users will find high-quality and research-relevant contents and data submitters will be fully credit for making their data readily available. A preliminary assessment of the first studies deposited in the database has shown that published articles often fail to provide sufficient information about the conducted experiments, such as experimental conditions evaluated, which sometimes are referred by abbreviations, and units of measure used. Besides alerting for the necessity of manual curation in tight collaboration with experiments' creators, the absence of such elementary data has motivated the emergence of a new, community-scaled initiative for the specification of *minimum information guidelines*. Currently, the MIABiE consortium (<http://miabie.org/>) is working on a proposal of such guidelines that will hopefully support not just BiofOmics but any other computational tools emerging from/for the latest high-throughput and metagenomics biofilms research.

References: Lourenço A, Ferreira A, Veiga N, Machado I, Pereira MO & Azevedo NF (2012) BiofOmics: A Web Platform for the Systematic and Standardized Collection of High-Throughput Biofilm Data. *PLoS one* 7: e39960.

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