

## **Development of a Web-based platform for the systematic and large-scale study of microbial adhesion and biofilms**

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High-throughput biofilm studies are rapidly accumulating a large amount of omics-scale data. In other biological areas that deal with large datasets, such as genomics or proteomics, ways for simplifying the visualization and understanding of the obtained results have already been developed. As such, we have started the development of a Web-based platform for analogous management, visualization and exploration of biofilm data. This platform, named Biofomics, is comprised of three main areas: 1) experimental characterization, where users define the conditions under which biofilms have been formed (e.g. microorganism, temperature) and the methods used to analyze them (e.g. crystal violet, XTT); 2) data submission, where users fill in a data form customized according to previous characterization and 3) data visualization, where users can correlate and visualize data from different biofilms and different studies (under development). Its contents are expected to represent the result of curation and automated integration of data from the entire biofilms research community. In particular, it is our belief that our efforts to harmonize data nomenclatures (e.g., methods applied to form and analyse biofilms), and document experiments (e.g. by adding citations and references) will support the work of reviewers of scientific literature. Initial tests, where in-house generated data is being used to feed the platform, are currently underway. The platform can be accessed at <http://193.137.90.5/>.

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