

Make Histri: calling on the microbiological community curate its historical data

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Abstract:

The exchange of biological material between BRCs not only is responsible for the variety of strain numbers in circulation, but may also incur uncertainty about the authenticity of the strains held by BRCs. Therefore, the integrated exchange history of a microbial strain (called a "Histri" in StrainInfo terminology) is an important tool in judging its authenticity. Moreover, it can also be used as a backbone for a Material Transfer Agreement (MTA) tracking system, allowing detection of intellectual property rights and recognition of all intermediaries for benefit sharing. The integrated strain Histri, visualized as an annotated tree, has been given a prominent place on StrainInfo strain passports. StrainInfo (<http://www.straininfo.net>) is a global catalog of microbial material, bundling all information known about strains on strain passports. However, before exchange histories can be visualized as a tree, they must be reconstructed based on historic information available from Biological Resource Center (BRC) catalogs. As complete reconstruction often needs human judgement in addition to a semi-automatic algorithm, StrainInfo released a Histri editor to allow end-users to reconstruct the exchange history of previously uncurated strains. Once a strain exchange history has been reconstructed, the Histri can be exported to PDF and PNG formats to allow embedding in other resources. StrainInfo keeps track of all saved revisions and the last version is available from its strain passports. As we are shifting towards an era where scientists make use of publicly available data rather than generating new, the quality of the data and its corresponding metadata becomes increasingly important. However, to be able to successfully make use of the scientific legacy, data needs to be converted to meet the proper digital and quality standards. Therefore, we call on BRCs and individual researchers to help maintaining the exchange histories of their strains. Log into StrainInfo and verify the Histri of your strains! This guarantees that scientific results obtained from those strains can be used assuredly. Make Histri!

Key words: data curation, exchange history, Histri, StrainInfo