

## Supporting access and benefit-sharing by microbial collections for deposition of microbial strains and those deposited previously

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Under the growing awareness and legislation about access and benefit-sharing (ABS), it has become standard procedure to obtain prior informed consent (PIC) and mutually agreed terms (MAT) from the country of origin when conducting biological research in other countries. While these documents, where required by law, are necessary to ensure legislative access to genetic resources, they may not always provide the necessary approvals for all biological research activities. Specifically, third-party transfer of genetic resources is often not approved, which is critical for taxonomists and microbiologists who need to deposit specimens in ex situ collections. This lack of consent from the country of origin can lead to legal ambiguity for deposited strains, which may also be a concern for subsequent users and further undermine the social role of public microbial collections in transferring strains with scientific significance and legal certainty.

To encourage researchers to obtain appropriate approval for depositing strains from their studies, the Microbial Culture Collection (MCC) at the National Institute for Environmental Studies (NIES) has been offering ABS consultation prior to the commencement of overseas microbial research. In order to enhance ABS support, NIES is now working on agreements with public microbial collections in other countries to cooperatively support ABS for collaborative research between Japan and the country, enabling lawful deposition of strains in both collections. To address concerns about traceability when strains are distributed by the country of non-origin, the agreement stipulates reporting distribution records by the collection in the country of non-origin. This agreement is open to the public and is expected to be referenced in international collaborative research proposals as a reliable measure to deposit strains, which facilitate government understanding on scientific practices.

In addition to supporting the future deposition of strains, the agreement also focuses on ABS of strains deposited previously, although not in a legal sense. For these strains, NIES promotes deposition to the collection in the country of origin (repatriation) so that the country of origin has access and control of their genetic resources. NIES also offers reports of distribution record from NIES. The details of these agreements will be presented.