Sample Code of Practice

Version 1

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The aims of the European Reference Genome Atlas' (ERGA) Pilot Project are to sequence and publish the genomes of at least one eukaryotic species (animals, plants, fungi and protists) from each ERGA associated country and regions. This mission will test and demonstrate the effectiveness of ERGA's distributed model of high-quality reference genome establishment and will inform ERGA's long-term goal of developing a pan-European genomics infrastructure that is accessible to all. Crucial to the success of the ERGA Pilot Project is the creation of trans-border Genome Teams that include biodiversity, genomics, and analysis partners. A more detailed description of the team structure can be found in the ERGA Pilot Project Rules and Guidelines.

Figure 1: ERGA Pilot Project Genome Teams

This **Sampling Code of Best Practice** has been agreed between all ERGA council members and will be further extended to future genome projects of ERGA. By submitting a sample and its metadata for sequencing as part of the ERGA Pilot Project, each ERGA Genome Team's sample ambassador agree they meet the requirements of this **Sampling Code of Best Practice**, in respect of all samples acquired for and supplied to ERGA.

Law and regulation

Genome Team sample ambassadors affiliated to ERGA and supplying specimens as part of the ERGA Pilot Project are responsible for complying with all applicable laws, licences, permissions, permits, and regulations (both domestically and internationally in scope) relating to the acquisition, transfer, storage, use, destruction, and disposal (where relevant) of the specimens they collect for ERGA, and for making available to ERGA documentary evidence of this compliance. Legal and regulatory documentation shall include provision for the transfer and use in ERGA Pilot Project samples and specimens obtained from sample collectors and transferred to other Genome Team members and collaborators. This includes those samples and specimens that have been collected by a sample collector in one country but are imported into the country of another Genome Team partner for other aspects of the project.

The standards within this document must be maintained during transfer of samples or specimens to Pilot Project Genome Team members and collaborators. In particular we note the following:

- **Compliance with the Nagoya Protocol of the Convention on Biological Diversity.** Compliance with national legislation to implement the Nagoya Protocol, where applicable, must be ensured, including obtaining Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) prior to accessing relevant samples.
- **Specimens collected by non-ERGA members or organisations.** Organisations supplying specimens acquired by individuals that are not a member of ERGA or an ERGA-associated organisation must ensure that specimens have been collected by appropriately approved individuals, and in accordance with the partner organisation's policies and procedures.

● **Provenance metadata.** All samples collected or supplied to ERGA must have sufficient data describing their provenance and origins. The sample ambassador is responsible for providing correct metadata information.

● **Transfer of specimens and samples from ERGA Pilot Project Genome Teams.** ERGA Genome Team members receiving specimens and data shall not transfer, store or use them except in accordance with the terms and conditions defined in the relevant legal and regulatory documentation, including permits, licences and information relating to the original sourcing of the specimens. Sample ambassadors transferring specimens for use in the ERGA Pilot Project must provide the recipient with all relevant regulatory documentation prior to the shipment of material and clearly stipulate any terms and conditions linked to their collection, transfer, storage, use, destruction and disposal (where relevant).

● **Communication of our Sampling Code of Practice.** Genome Team sample ambassadors should provide a copy of this code to collaborators outside of the ERGA to ensure that it is clearly communicated and compliance is expected.

Environmental and biological impact

Samples and specimens will be acquired with the minimum possible impact on biodiversity, the local habitat and wider environment, and the species itself, and should be balanced with achieving the scientific goals of the ERGA Pilot Project. Where a species is abundant in one location, but rare in another, collection of specimens of that species from the locale in which it is more abundant is preferred, unless there are good scientific reasons why an alternative location should be selected. If samples of known provenance, suitable quality and appropriately robust metadata sufficient to meet the scientific needs of ERGA can be obtained from existing collections, they should be used in preference to new field collections. Where there is no applicable law, permit, licence requirement or regulation relating to a species (for example, relating to rarity or endangered status), or to a particular habitat (such as Site of Special Scientific Interest (SSSI) or Marine Conservation Zone (MCZ) status), steps should be taken to ensure that collection occurs with no or minimal impact on the species or habitat (which may include consideration of effects on other species), and advice sought on conservation status in cases of doubt. In

cases where planned sampling or collection for the ERGA Pilot Project might present a broader ecological risk to a vulnerable environment, there should be a written assessment of this risk and mitigation measures prior to sample collection. ERGA will not condone the acquisition of samples or specimens where individuals or organisations have conspired to acquire these for the Pilot Project illegally. Where there are doubts concerning whether the acquisition of a particular sample or specimen for ERGA Pilot Project would comply with the requirements within this Sampling Code of Practice, then this will be brought to the attention of the ERGA Council for a decision.

Documentation standards

Genome Teams sample ambassadors will ensure that specimens and samples are documented to the relevant recognised standards specified by their organisations or institutions, in addition to any information required by this Sampling Code of Practice. The University of Lausanne, Switzerland will undertake to act as a secondary repository for information deemed appropriate and proportionate to the due diligence required relating to samples and specimens, which may include legal and regulatory documentation received from the ERGA Pilot Project Genome Teams. The ERGA Pilot Project shall maintain records of samples and specimens, including electronic copies provided by sample collectors of legal and regulatory documentation, permits and licences, as appropriate, to provide assurance to ERGA that samples and specimens have been acquired in accordance with legal requirements.

Information and documentation regarding specimens and samples donated by individuals to the ERGA Pilot Project for ERGA will be managed by those organisations in line with any legal requirements and the organisation's existing policies and procedures.

By agreeing to this Code, the relevant member of the Genome Team agrees that all requested above is adhered to and samples have been acquisitioned to the best of their knowledge following these guidelines.

***This Code of Conduct builds on the work of the Darwin Tree of Life DToL. The ERGA consortium thanks DToL for allowing ERGA to adopt this Code to ERGA's**

needs and for document sharing. All changes to this document only apply to ERGA not to DToL.

Appendix

List of other considerations which may apply to sample/specimen acquisition for the Pilot Project

This Appendix lists other aspects relating to sample and specimen collection which should be considered, depending on the species, samples, specimens and sites involved:

● Requirement for landowner permission and compliance with property law, including for the collection of non-protected species outside protected areas.

● The relevance of current laws and licences which may have changed since sample or specimen acquisition.

● Compliance with the requirements of EU Plant Health Passports and import regulations.

● Sampling methods for relevant animals must be humane and consistent with current legal requirements and good practice.

● Information contained within legislative instruments, permits and licences may be permissive of or prohibit activities. This includes prohibited or unauthorised methods to capture or kill mammals and birds: Prohibited or unauthorised method to capture or kill.

● Compliance with United Nations Convention for the Law of the Sea (UNCLOS) regulations and the evolving Biodiversity Beyond National Jurisdiction (BBNJ) agreement.