

Call for proposals – 2016

Proposal submission guidelines

Context

The Joint Experimental Molecular Unit (JEMU) was established in 2007 as a joint project between the Royal Belgian Institute of Natural Sciences (RBINS) and the Royal Museum for Central Africa (RMCA). Since then JEMU is conducting and supporting DNA research activities related to the use of the natural history collections of both institutes. JEMU team currently consists of Nathalie Smitz (RMCA), Gontran Sonet (RBINS), Carl Vangestel (RBINS) and Massimiliano Virgilio (RMCA).

JEMU call for proposals 2016

A wide range of DNA techniques are available to scientists working with natural history collections and willing to address specific evolutionary, taxonomic or biogeographic issues in their research. The goal of this call is to support novel or already ongoing research projects coordinated by scientists of RBINS and RMCA. In this respect the JEMU will provide:

- expertise on the most appropriate DNA techniques in relation to the research aims and scientific issues to be addressed,
- support to the laboratory activities and collection of DNA data,
- statistical analyses of the data collected,
- co-authorship in scientific papers and
- financial contribution to the working costs.

Research priorities

JEMU will preferentially support research focusing on the collections of RBINS and RMCA and addressing both fundamental scientific questions and/or applied issues in taxonomy, ecology, biodiversity, conservation, agriculture, public health, etc.

JEMU priorities for 2016 are to encourage the use of novel sequencing technologies (next-generation sequencing, NGS) and to further strengthen the expertise already available (Sanger sequencing, DNA barcoding museum specimens, microsatellite genotyping, etc.). The application of NGS (e.g. through reduced representation of genome/methylome, museum genomics or high-throughput sequencing of PCR amplicons) will be encouraged since this relatively recent approach is becoming more cost effective and is complementing (and even gradually replacing) the standard molecular techniques used for phylogenetic reconstruction, analysis of population structure, DNA barcoding identification and genotyping of museum vouchers.

Implementation of the project

JEMU will support one or two research projects with a total financial contribution of 20.000 €. Projects will start at latest in September 2016 and will be ideally completed before May 2017. In order to ensure a timely progress, all research material related to the proposed project (i.e., specimens, tissue samples) must be readily available by the end of August 2016. Whenever possible, samples and sample data will be prepared and stored according to the standard procedure used at RBINS and RMCA for the long term storage of tissue and DNA samples (2D barcoded tubes and spreadsheet templates). The results of the selected projects will be published in joint papers.

Submission procedure

JEMU is willing to assist and contribute to the preparation of the research proposals 2016. A first informal expression of interest should be communicated by email to JEMU before **17 May 2016** (e-mail contacts below) indicating 1) name and contact of the coordinator (must be at RBINS/RMCA), 2) a few lines briefly describing the project, 3) the research issues to be investigated, 4) a list of the biological material available, 5) a suggestion of methodological approach (optional), and 6) contacts of potential external partners. Informal meetings will be organised with the project coordinators to discuss the feasibility of the project, the suitability of the DNA techniques requested and the indicative costs of the analyses. This will allow a better calibration of the final proposals before their submission on **30 June 2016** (proposal form attached).

Eligibility

Individual researchers or research teams led by individuals working at the RBINS or RMCA can apply for JEMU projects. Collaborative projects involving RBINS, RMCA, as well as other research institutes in Belgium and abroad are encouraged.

Evaluation and selection

All proposals will be evaluated by the JEMU team, eventually, with the help of ad hoc external experts qualified in the research field involved. Only complete submissions will be evaluated. Evaluation criteria are:

- Compliance with the research priorities of RBINS/RMCA
- Originality of the proposed research
- Clarity of the research issues, relevance of methods, positioning with respect to the state of the art in the proposed area
- Technical feasibility of the project
- Joined proposal between RBINS and RMCA are encouraged

Terms and conditions

The budget is managed by JEMU and no funds will be transferred to the project coordinator. The allocated budget can only be used to support the DNA work (e.g., consumables); there will not be any support to personal costs, field work, etc. Neither party will be liable for any indirect or consequential damages, including but not limited to lost profits, contracts and opportunities. The coordinator must submit a scientific report within two months after completion of the project.

Contact information

Please contact the JEMU team for further information:

Nathalie Smitz (nathalie.smitz@africamuseum.be) JEMU – RMCA

Gontran Sonet (gontran.sonet@naturalsciences.be) JEMU – RBINS

Carl Vangestel (cvangestel@naturalsciences.be) JEMU – RBINS

Massimiliano Virgilio (massimiliano.virgilio@africamuseum.be) JEMU – RMCA