# **REP Project Proposal form 2024**

To submit a project to be advertised by EASTBIO DTP to prospective applicants, please detach this form, complete and submit it to [enquiries@eastscotbiodtp.ac.uk](mailto:enquiries@eastscotbiodtp.ac.uk) **no later than the 15 March 2024**. Note that the information you provide below will be shared with prospective applicants via the EASTBIO website and across the DTP. After confirmation by EASTBIO, you can also advertise the project via your local institution and link to <https://www.ed.ac.uk/biology/eastbio/research-experience-placements>. You can either develop a project to be advertised openly by EASTBIO or you can do so after being contacted directly by a prospective student you wish to sponsor for the REP scheme.

Email us if you have further questions.

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| **EASTBIO REP Project Proposal Form 2024**  **https://www.ed.ac.uk/biology/eastbio/research-experience-placements** | |
| **Your name** | Dr. Mohamed Abdalla |
| **Your affiliation (e.g. University of Dundee, SRCU, etc.) and staff webpage** | University of Aberdeen, Biological Sciences |
| **Your email** | mabdalla@abdn.ac.uk |
| **REP Project title** | Evaluating Sustainable Strategies to Reduce N2O Emissions from Scottish Agriculture |
| **Details of the local administrator to liaise with the EASTBIO team** (*name and contact email address*) | Dr. Giles O’Donovan  School Administrator (Research)  School of Biological Sciences  Zoology Building  University of Aberdeen  +44 (0)1224 273029 |
| **Project’s Strategic area** | **Bioscience for sustainable Crops and Soil** |
| **A 200-word Project summary**  *Make sure that the project has a clear objective, is feasible within the maximum REP duration, and clearly demonstrates how it supports the student’s skills development and their confidence in considering and undertaking further research* | The project aims to address the critical issue of nitrous oxide (N2O) emissions from agricultural lands, particularly in Scotland, where agriculture holds significant economic and environmental importance. The primary objectives include 1) validating the DNDC model, 2) investigating N2O flux attributions, 3) assessing mitigation scenarios, and 4) comparing conventional fertilization practices with optimized strategies.  Through a 7-week placement at the School of Biological and Environmental Sciences, University of Aberdeen, the student will have access to collected field data, DNDC-model software, and mentorship within an environmental modelling group. Practical training on fieldwork techniques and model validation processes will be provided, alongside opportunities for soil data collection through 3-4 field visits.  The project offers a unique opportunity for the student to gain hands-on experience, develop valuable skills, and contribute meaningfully to ongoing research efforts in soil greenhouse gas (GHG) emissions and climate change mitigation. Throughout the placement, the student will engage in diverse learning experiences, including field visits, data analysis, model implementation, and participation in group discussions, fostering holistic development and enhancing proficiency in environmental research.  Under my guidance and supportive colleagues, the student will cultivate problem-solving abilities, resilience, and adaptability, laying a robust foundation for continued growth and success in the field of environmental research.  In essence, the placement provides a comprehensive learning experience aimed at empowering the student with practical skills, theoretical knowledge, and a collaborative research environment conducive to personal and professional development. |
| **Proposed Project Start Date**  *Recommended June-July 2025 (max 8 weeks). We will ask you to confirm the project start and end dates after awards are made*. | The placement will start in the first week of June and continue for 7 weeks. |

All projects approved by the EASTBIO Management Committee for fit to the REP’s remit will be advertised on the EASTBIO website and via our Twitter and LinkedIn, as well as via the local websites of our partner institutions. EASTBIO will contact you should there be any queries about your project before it is publicised.

The closing date for student applications is the **23 April 2024**.

Please note*:* The student and their supervisor are required to submit a brief report on the outcome of the REP to EASTBIO within *two* months of completion of the placement.

For any queries, email [**enquiries@eastscotbiodtp.ac.uk**](mailto:enquiries@eastscotbiodtp.ac.uk)**.**