

StudentShapers Recruitment: Calling all Faculty of Medicine PhD students

Project title: Developing a bioinformatics training resource for biomedical PhD students.

Bursary: £1440 per student, for approx. a half-day a week for 6 months. The project is expected to start no later than mid-October 2024.

Who should apply: We are looking for 3 PhD students from the Faculty of Medicine (any department, any year) who are:

- focused on wet lab research.
- have limited (or no!) knowledge or experience in bioinformatics skills but wish to learn them.
- interested in developing skills related to learning design and evaluation, particularly those relevant to digital education.

We aim to recruit students with diverse research interests.

Campus/Location: Most of the project will be done online. However, student partners will be asked to observe some in-person lectures/workshops at the Hammersmith campus in November 2024. Other in-person meetings will be by mutual agreement and as necessary for the task in-hand.

Project details: Feedback from PhD students in the Faculty of Medicine has identified a need for increased provision of bioinformatics training and support. In particular, students whose research is primarily wet lab focused, but who need to exceptionally use a specific tool or method to analyse complex experimental data, would like to be able to access high-quality training on-demand. A local network of peer learners, who could provide quick answers to simple questions, would also be beneficial. This project aims to establish a framework that can be used to provide this via the following objectives:

1. Identify the most useful way for ad-hoc bioinformatics learning and support to be structured and delivered.
2. Build an exemplar training unit whose structure can be readily applied to additional topics.

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Throughout this project, students will partner with a Senior Teaching Fellow, a Research Associate, and an eLearning Technologist, who together have relevant education and subject-specific expertise.

As a student partner, you will first be asked to review existing introductory bioinformatics training from the MRes Cancer Informatics programme at Imperial. In doing this, you will gain an increased understanding of the topics covered and engage with analytical tools and approaches which you may be able to apply to your current or future research projects. Training related to the R programming language as well as quality control and data visualisation is suggested as a starting point due to its relevance across disciplines. However, there is flexibility to change this based on the interests of all the student partners.

Ideally, materials review will involve a comparison of in-person and draft on-line provisions. This will allow identification of essential in-person learning experience elements which may need to be replaced or compensated for in a new online offering. You will also be encouraged look relevant free online training provisions (e.g. MIT Open Courseware, Coursera) for inspiration regarding activities or approaches which can be emulated or embedded in our own resource e.g. if and how participants required to share/post contributions. Together, this part of the project will help you develop understanding and evidence of skills related to learning design and its critical evaluation.

Once content and activity priorities have been identified, the entire project team will co-produce and agree on a storyboard for the build which will then be carried out. This will be done collaboratively using Articulate Rise, giving you experience in developing digital learning resources.

We plan to share the project, and get feedback on its ongoing development, by presenting to various educational seminars and events at Imperial. You will be encouraged and supported to join us in doing this.

How to apply:



Applications (300-500 words) should be made via the 'Student Expression of Interest' form on the StudentShapers website ([here](#)) or accessed using the above QR code. This will then be distributed directly to the appropriate staff partner. Interviews with prospective student shapers may be held. Importantly, you must seek the permission of your supervisor to apply to be a student shaper for this project. Ideally, student partners will represent different fields of biomedical research within Imperial, and if needed we will prioritise this in selecting our student partners.

Deadline: 14th October 2024

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