**Application Form 2019**

**Royal Society of Chemistry Higher Education Group Kickstart Funding for Effective Practice and Innovation in Chemistry Higher Education**

Please complete the details below and email your application to [anna.roffey@ucl.ac.uk](mailto:anna.roffey@ucl.ac.uk)

on or before **Monday 25th of February 2019**.

Applications will be reviewed by members of the HEG Committee and applicants will be notified by the end of April 2019 (with funds issued by the end of May 2019). Successful applicants will be asked to submit a short report with optional photo by the end of May 2020.

Marketing can be provided for funded projects if required.

|  |  |
| --- | --- |
| **Name of main applicant:** | Dr Benjamin Morgan |
| **Affiliation of main applicant:** | University of Bath |
| **Email contact address for main applicant:** | [b.j.morgan@bath.ac.uk](mailto:b.j.morgan@bath.ac.uk) |
| **Name(s) and affiliations of co-applicant(s):** | Dr Fiona Dickinson, University of Bath  Mr. Andrew R. McCluskey, University of Bath & Diamond Light Source  Dr Natalie Fey, University of Bristol  Prof. Fred Manby, University of Bristol  Dr Joao Perdo Malhado, Imperial College London  Dr Andrew McKinley, Swansea University |

|  |
| --- |
| **In up to 500 words below, please summarise the aim of your pilot chemistry education project as well as how it will address the 5 criteria to:**   * **have an impact in at least 2 higher education institutions** * **provide opportunities not previously available to higher education students and / or teaching staff** * **facilitate the implementation of effective and / or innovative chemistry education practice** * **deliver tangible outputs over a reasonably short timeframe e.g. 3 months** * **be scalable / extendable in the future (this may require funding applications elsewhere in due course)** |
| We have recently launched the pythoninchemistry project (pythoninchemistry.org) to introduce Python laboratory exercise into the undergraduate chemistry curriculum at the University of Bath. In order to increase the availability of chemistry-focussed Python educational resources, we hope to organise a ‘hackathon’ (e.g. a day-long event where there will be a concerted effort to create educational material) in collaboration with the Universities of Bristol and Swansea and Imperial College London. These materials would be made available to all by sharing on the pythoninchemistry webpages under an open-source, permissive license to allow all educators to make use of them.  This hackathon event would be open to all students (with funding earmarked for support student travel expenses) in addition to academic staff. The experience of Drs Morgan and Dickinson, and Mr McCluskey as developers of open-educational resources (see pythoninchemistry.org for details) would allow attendees to develop programming skills and understand the applicability of these skills to chemical education. Additionally, the hackathon would allow staff members to have the time and space to focus on the development of educational materials without the typical distraction of a workday.  The project would create a unique resource of educational content designed for use in lectures, giving educators access to a wide variety of material aimed at providing interactivity with chemical concepts. Additionally, we would share details about the design and implementation of the hackathon through a blog post and a submitted presentation at the Variety in Chemistry Education/Physics Higher Education Conference in 2020 (assuming abstract acceptance). The open nature of this will allow other educators to develop and improve the resources at their own hackathons.  The hackathon, by design, will result in a large amount of (unpolished) educational material to be created in a short period of time (ca one day). This will then be polished and refined for deployment in the associated educational institutions soon after. Simultaneously, this will be shared online for all to copy, redistribute, remix, transform, or build upon. |

|  |
| --- |
| **How will the outputs be disseminated and shared?** |
| All of the material created will be shared under an open-source permissive license for use by other educators globally (most likely hosted on the pythoninchemistry.org webpages). We hope to disseminate information about the planning and deliver of the hackathon via an open-access publication and a relevant academic journal. |

|  |
| --- |
| **Anticipated timelines:**  **(e.g. start and end date and any milestones in between. Please aim to have the project/activity completed by the end of May 2020)** |
| The anticipated date of the hackathon would be November 2019, held at the University of Bath. This would allow for 6 months to prepare for the event, and a following 6 months to refine the material developed for inclusion in the undergraduate curriculum in Semester 1 2020/2021. |

|  |  |
| --- | --- |
| **Budget for this activity:**  **(As a maximum of £300 funding can be allocated, please indicate if it is intended that other sources of funding will be used and the approximate amount required) :** | |
| **Item** | **Expected cost** |
| Lunch for 15 attendees | £75 |
| Refreshments (Coffee, Tea, etc.) | £25 |
| Student travel bursaries | £200 |
| If funded we will also apply to the University of Bath Faculty of Science to match the £300 allowed for dinner and additional travel bursaries to be supported. | |

**Please note:** Submitted application forms will be stored securely until the review process is complete and will then be deleted.

Applicant email addresses provided will only be used to communicate with them in relation to their funding application.