STS Summer Studentships

UCL Department of Science and Technology Studies is delighted to offer a series of paid studentships for work experience associated with activities in our research and teaching domains.

Each studentship involves 80 hours in total, envisioned as approximately ten hours' work per week for eight weeks or twenty hours per week for four weeks. Normally, the work must commence before mid-June 2024, and it must be completed by the end of August 2024. The specific timetable will be set by the project manager.

Pay will be for a total of 80 hours over the course of the studentship at London living wage, which currently is £13.15 per hour.

To be eligible for consideration, applicants must demonstrate general knowledge and understanding of the subject area and must be a UCL student – some relevant experience in STS is essential (e.g. students should have taken some HPSC modules, or similar modules elsewhere in UCL, at undergraduate or masters level). General skills for each post include: excellent time management, ability to work independently and to multi-task, excellent communication skills, and ability to take initiative. UCL student status is required for each position.

These studentships are intended for both undergraduate and postgraduate students and to offer paid work experience in research and engagement. Postgraduate research students are not eligible. Employment requires a right-to-work in the UK.

Application procedure

Students wishing to apply must submit a one-page CV plus a one-page personal statement describing why they are a good fit for the specific project. In addition, please provide the name of one academic referee who can be asked to advise during the selection process.

Students can apply for more than one project. In this case, apply separately for each so they can be considered for each case. You may submit the same CV and referee name for each project you'd like to undertake, but you must submit a customised personal statement for each specific project. Send only one application per email. Students may receive only one studentship per year.

CVs and personal statements must be received no later than Wednesday 20 March 2024, 17:00 London time. These must be sent by email to Victoria Mounsey: v.mounsey@ucl.ac.uk. Please include the word "studentship" in the subject line of your email.

Project 1: Investigating regulatory barriers to bacteriophage (phage) research

One post is available.

Project Manager: Professor Emma Tobin

Project description

Last year, the UK Commons Science, Innovation and Technology Committee undertook an Inquiry into the antimicrobial potential of bacteriophages. Bacteriophages (or phages) are tiny parasitic viruses, capable of killing their bacterial hosts. Numerous and diverse phages are found in nature, as they naturally co-occur with their hosts. Because they kill bacteria, phages were discovered and studied for their ability to fight infections. The discovery of antibiotics in the 1920s provided a simpler and more convenient way to treat infections so they became the main treatment in most Western countries. The nature of the political climate of the Cold War meant that although phages were still used as antimicrobial agents in the East, particularly in the old Soviet Block, they fell out favour with western scientists. However, over-reliance on antibiotics across food production, veterinary and human health has resulted in increasing levels of antibiotic resistance (known as antimicrobial resistance, AMR), making it more difficult, sometimes impossible, to treat dangerous infections with antibiotics. The impending global health crisis by AMR bacteria is expected to kill up to 10 million people per year by 20502. This has led to newfound interest in using phages as antibiotic alternatives, especially in compassionate use cases.

The PI, Joanne Santini, Sarah Edwards (CoI) and colleagues at UCL were heavily involved in giving both oral and written evidence to the Committee including on current state of evidence from international clinical trials and observational studies and barriers to clinical research in the UK. We also hosted a visit for MPs on the topic.

Following the recent publication of its Report on the subject (https://committees.parliament.uk/oralevidence/12669/pdf/), there continues to be some debate specifically over whether requirements of Good Manufacturing Practice (GMP) for medicines generally or of standards for biologicals should apply to phages both in early or compassionate access in extremis and for clinical trials for evaluating safety and efficacy. Indeed, different standards are currently at play internationally with the EMA and MHRA requiring GMP, and Australia, Belgium and the US FDA requiring different standards. To meet the requirements of the EMA, phage production in Georgia will need to change from methods accepted for generations and whose outcomes have been recorded by observation to standards of GMP at huge commercial cost. Meanwhile, the EU has recently established a working party to examine policies for enabling phage research. Despite the MHRA currently also requiring GMP, the UK does not have any approved GMP facilities for phage production, nor do pharmacists have the expertise or equipment to be able to purify and prepare phage on licensed premises under specials license or exemption to regulations. As a result, no patient in the UK can currently be treated with phage prepared in the UK.

Growing domestic interest in basic research into phages especially in phage engineering and government economic initiatives to incentivise industry might help to some extent. Here, we will address the regulatory barrier of GMP and engage with researchers in private and public sectors as well as regulators to develop strategies to overcome these barriers. We will also examine how bacteriophages are classified for regulatory purposes (e.g. as medicines, food supplements, probiotics etc.) and how getting a clearer picture on the classification of bacteriophages can help with some of the regulatory barriers.

Part of Larger Project with UCL Collaborators Prof Sarah Edwards (STEaPP) and Prof Joanne Santini (Structural and Microbiology UCL)

Expected outcomes

In addition to publication of results which we hope will inform policies surrounding standards for phage production and clinical use directly, we will use the results and the associated network of researchers and regulators gained during the project to prepare a grant application for the Horizon call on AMR above.

Work to be undertaken

1. The student will collate and review the available documents and standards detailing requirements by regulators for phage production.
2. The student will be involved in organising a series of qualitative interviews with a purposive sample of approximately 30 international phage researchers, engineers and clinicians, in both the public and private sector, and with different regulators to gauge their perceptions of GMP and alternative standards as they relate to phage and to FMT. Qualitative data will be analysed thematically using NVivo software and published in open-source peer reviewed journal.
3. The student will support in workshop organisation.

Skills you'll develop or improve as part of the work

1. Interviewing Techniques
2. Interview and Document Analysis
3. NVivo Software
4. Workshop Organisation

Hours

- 4 X 20 hours a week or alternative to be agreed with PI and Co-Investigators.

Project 2: Papers of the chemist, John Perkins (1943-2023)

One post is available.

Project Manager (STS): Professor Frank James

Project description

John Perkins was a prominent historian of French chemistry in the period before and after 1789 - an account of his life can be found at https://www.tandfonline.com/doi/full/10.1080/00026980.2023.2265708. Amongst other things, Perkins showed that chemistry was practiced far more widely in France than had been supposed previously where the historiography concentrated on major figures such as Lavoisier, Fourcroy, Guyton de Morveau etc. In particular Perkins published, using extensive Département archives, on chemistry in Nancy and Merz. He also worked on many other cities, but unfortunately did not publish the results of his research.

However, the primary material of his research are contained in around twenty large archive boxes which a back of the envelope calculation suggests contain probably about 40,000 sheets of paper; a quick trawl through the boxes show extensive records relating to Rouen for instance.

Professor Frank James has been asked by Perkins's widow to advise on the long term preservation of this archive and make it available for historians to use. But before that can happen, it is essential to have a good idea of what is actually in the boxes.

Work to be undertaken

The task of student would be to list and index to file level at least, the papers contained in the boxes which would be transferred to UCL for this purpose. A secondary task would be to match up the list produced with the data sheets that Perkins compiled.

Skills you'll develop or improve as part of the work

The student would primarily acquire archival skills for instance in handling and listing papers. They would also learn how to create a list in way that could be easily used by others to retrieve the information contained in the papers.

Hours

- 8 x 10 hours per week or schedule to be agreed with project manager.

Project 3: 2024: A survey of public numbers

One post is available.

Project lead: Tiago Mata (t.mata@ucl.ac.uk)

Project description

The purpose of the research is to create a structured list of public numbers that widely circulate in the public sphere of the United Kingdom. The numbers may be scientific, medical, economic or demographic, they may be a single number of a regularly updated statistics. The primary sources to be surveyed are news and social media. The research team will scan these sources to record and catalogue numbers that have gripped the nation's attention from January 1 to June 30. The research team will develop an indicator to rank those numbers in terms of their visibility, legibility, credibility and timeliness.

Work to be undertaken

1. The student will lead the data collection, They will use a set of tools, programmed through python, to aid and automate data retrieval, building up a corpus of texts related to the numbers identified.
2. The student will collaborate with the PI to develop the retrieval tools.
3. The student will collaborate with the PI to create a shortlist of the most significant public numbers.
4. They will develop a protocol to compare the numbers and score them.

Skills you'll develop or improve as part of the work

1. The student will learn how to structure and conduct a research project.
2. The student will learn rudiments of python programming (ideally they will have some basic understanding of programming already, or the eagerness ot learn)
3. In the course of the work the student will learn lessons from the sociology of quantification that illuminate the power of numbers of democracies, bureaucracies and markets.

Hours

- 8 weeks x10 hours per week

Project 4: What Does Socially Just Science Communication Look Like?

One post is available.

Project Managers: Stephen Hughes and Simon Lock

Project Description: Science communication research, teaching, and practice is increasingly looking to models of engagement that are inclusive, equitable, and socially just. However, there are few places to look to for examples of what this kind of science communication might look like.

This internship will involve working with Stephen Hughes and Simon Lock to collect and analyse examples of socially just science communication in the UK with the goal of producing a research paper to be published in an academic journal. The successful student will be supported directly by both members of the project team who will be available for one-to-one meetings and mentoring support.

Role will Involve:

- Compiling academic literature which outlines the conceptual basis of socially just science communication.
- Using this literature to help Stephen and Simon develop an analytic framework of socially just science communication.
- Compiling a list of examples of socially just science communication in the UK.
- Analysing these examples using the analytic framework previously mentioned.
- Attending planning meetings.
- Considering issues of ethics and responsibility as they relate to collecting data for the project (optional).
- Co-authoring a research paper based on the analysis (optional).

Skills Learned:

- Conducting a literature review for academic research.
- Systematic data collection for academic research.
- Ethical reflection for academic research.
- Planning, organising, and writing for academic publication.

For further details about the project please contact Stephen Hughes, stephen.hughes@ucl.ac.uk.

Project 5: 'Prejudice in Power' exhibition

Two posts are available.

Project Manager: Professor Joe Cain

For further details about the project please contact Professor Joe Cain <J.Cain@ucl.ac.uk>.

Project description

In January 2025, UCL will open a "Prejudice in Power" exhibition as part of its response to its Legacies of Eugenics work. STS has played an important role developing the history of eugenics framework, and we've had an impact on the direction and scope of university activities. Professor Cain is lead academic for an exhibition that will open in the Octagon Gallery in conjunction with a major set of public arts projects responding to legacies of eugenics. This project seeks two students to support the exhibition development.

Work to be undertaken

By the time you join the project, a great deal of work will be completed. But there will be more to do. Both roles involve supporting marketing and communications around the project. This includes content creation for blogs, newsletters, advertisements, and promotion. It also will include creating interviews for podcasts. You will shadow people involved in exhibit design and participate in workshops with the exhibit team. There also will be work to do on script review and editing, developing a public programme, and creating evaluation. We likely will still be undertaking object research, so you will assist here, too. The overall workload involves most elements of exhibition production and engagement.

Skills you'll develop or improve as part of the work

- communications skills with blogs, newsletters, advertisements, and promotion
- researching skills, i.e., the ability to find evidence in response to research questions, such as "who was this person?" or "what do we know about this activity?"
- writing for different audiences
- interviewing people for broadcast
- working in archives and special collections
- picture and object research
- working as part of a professional team
- considering stakeholder roles other than your own

Hours

The exhibition has a timetable that is defined by UCL Museums and Collections. This means we'll start your studentship early in Term 3 for 10 hours per week. That pace will operate for 4 weeks, then possibly it will increase to 20 hours per week once exams and assessments are completed. That more demanding pace will last until the 80 hours of the studentship are exhausted. We'll accommodate your need to prioritise coursework and examinations. You'll be invited to the opening of the exhibition in January 2025 and we'll include you in the programme credits.

STS Newsroom Studentships

Four studentships are available in the STS Newsroom.

Project manager: Dr Jean-Baptiste Gouyon

Project description

The STS newsroom normally is a group of students, working one day a week for 10 weeks during Term 3 and slightly thereafter under the supervision of Professor Joe Cain and Dr Jean-Baptiste Gouyon. They create news content about the department that will be used in the department's outward communication. This will include written content for the STS magazine, *Alchemy*, and the STS podcast series, WeAreSTS. Mentoring will be available throughout the studentship.

Duties

Each post holder will be expected to:

- participate in one weekly newsroom meeting
- produce, over the course of the studentship, strong written material amounting to at least three short-form and one long-form pieces
- produce one podcast and to contribute segments in other podcasts

Skills required

- well organised
- news-minded
- inquisitive
- excellent writing skills
- excellent interviewing skills
- good copy-editing skills
- ability to work to a deadline

Hours

Each studentship involves 80 hours in total, envisioned as approximately 8 hours work per week for ten weeks. The work must commence during the week of 22 April 2024. It will end on 30 June 2024. The precise distribution of hours will be agreed between post holders and project managers.

Application procedure specifically for STS NewsRoom

Those wishing to apply must submit a one-page CV and a 200-word writing sample, based on an interview with any one individual connected to STS. In addition, please provide the name of one academic referee who can be asked to advise during the selection process.

Applicants must demonstrate general knowledge and understanding of science and technology studies (STS) as a subject area and must be currently enrolled as a UCL student. Some relevant experience in journalism or communication is essential (e.g., an applicant might have taken a module such as HPSC0107 or HPSC0122 or an equivalent). General skills for the post include excellent time management, ability to work independently and to multitask, excellent communication skills, and ability to take initiative. Bilingual students are especially welcome to apply.

CV and writing sample must be received no later than Wednesday 20 March, 17:00 London time. These must be sent by email to Victoria Mounsey: `v.mounsey@ucl.ac.uk.` Please include the phrase "STS NewsRoom" in the subject line of your email. Shortlisted candidates may be interviewed.

These studentships are intended primarily for undergraduate students to offer paid work experience in news writing. Taught postgraduate (i.e., Masters) students may apply, but undergraduates will be considered preferentially. Postgraduate research students are not eligible to apply. Employment requires a right-to-work in the UK.