

Supporting pharmacy education and research: history, innovation and engagement

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Abstract

The UCL School of Pharmacy is celebrating its 180th anniversary. This article discusses how its library has supported the School in its teaching, research and public engagement. There is an overview of the challenges and opportunities the library has faced with regards space, collection management, information literacy and non-traditional support, such as wellbeing and sustainability. Post-COVID developments, AI and the utilisation of the library's important historic collections and archive are also described.

Key words: libraries, medical; library services; pharmacy, history; pharmacy, education.

Introduction

The University College London (UCL) School of Pharmacy (<https://www.ucl.ac.uk/pharmacy/ucl-school-pharmacy>) is the oldest School of Pharmacy in the UK, having been founded in 1842 (1) by what was to become the Royal Pharmaceutical Society of Great Britain, the professional membership body for pharmacists and pharmacy in England, Scotland and Wales (Figure 1).



Fig. 1. The School's main entrance today.

In the early years of its history The School shared its premises and library with the Society in Bloomsbury Square, London (Figure 2). This was a fine-looking neo-classical building, but it was soon to prove too small for the School, which had by 1925 become part of the University of London, and for the Society. A new purpose-built building began construction in 1938 in nearby Brunswick Square, with the new School library opening in November 1959 (Figure 3).



Fig. 2. The School's first library in Bloomsbury Square.

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Fig. 3. *The library in 1959.*

In 2012 The School of Pharmacy joined UCL (<https://www.ucl.ac.uk/>), a multi-disciplinary university with more than 16,000 staff and 50,000 students from over 150 countries, which is internationally recognised for the quality of its research, teaching and enterprise. The Pharmacy Library (<https://www.ucl.ac.uk/library/using-library/libraries-and-study-spaces/ucl-school-pharmacy-library>) is now part of UCL's "Library, Culture, Collections and Open Science" (LCCOS) department (<https://www.ucl.ac.uk/lccos/library-culture-collections-and-open-science-lccos>). LCCOS consists of three museums and allied object collections, fourteen libraries, the UCL Student Centre, Special Collections facilities, multiple additional learning spaces, the Bloomsbury Theatre and an off-site storage facility. We also support healthcare staff through our partnerships with six NHS Trusts.

Whilst primarily serving the teaching and research needs of students and staff at UCL, the collections are also utilised by a variety of visitors. Today the library has strong specialist collections in the pharmaceutical sciences, pharmacognosy and pharmacology, but the biomedical sciences and other subjects are also covered. Also, a small, but important archive of documents, paintings and artifacts deals with the history of the School and pharmacy.

With 2022 being its 180th birthday the UCL School of Pharmacy began an academic year-long celebration, which is ongoing into 2023. Keen to support the School in this project, and to promote the Pharmacy Library, library staff have engaged with a range of School events, aimed at the UCL community, past and present, international researchers, industry, and the general public. It has been a year for the library to reflect on its past, challenges, solutions and innovation.

Study spaces

Whilst there have been a lot of changes since the library opened one thing that has remained constant is the high demand for study spaces. Even before the new Library opened the Library Advisory Committee in 1956 was warning that "the accommodation allocated to the library was grossly inadequate" and by 1967 the need for additional space was being met by blocking some of the existing windows with shelves! As a result, the library has been extended and refurbished several times since, not just because of increased customer numbers, but because of changes to learning methods.

As most School teaching returned to in person this academic year 2022/23 the demand for space has returned to pre COVID pandemic levels with the library often at capacity. The main change in terms of demand on space has been the need for greater variety of spaces both in terms of space for students, but also different space needs for library staff. As a small team, whose roles all include student facing services, staff are based predominately on site. Sharing an open plan office there is an increased need for separate space for staff to attend online meetings, to provide online training and to provide in person support for students. The majority of information literacy and 1-2-1 support sessions have returned to being in person at the School. Having areas the library can use for training students is also increasingly important as higher student numbers have meant that it is harder to book centrally managed teaching spaces.

Any future plans would look to increase these types of spaces whilst building in flexibility so spaces can adapt to different and changing needs. For example, having study rooms that could open up to create larger group spaces, as well as providing bookable individual study rooms, to allow both students and staff to attend online sessions.

Physical and electronic collections

The other demand on space is the physical collection and whilst usage of the physical collection has declined, with the pivot to digital accelerated by the COVID pandemic, the importance of the collection is increasingly apparent. As one of several UCL's flagship collections the School of Pharmacy Library is the only free-standing academic pharmacy library in the UK and the depth of the collection reflects this. Detailed analysis of the collection, against the holdings of other national and international collections, highlighted the scarcity of several items reflecting the importance of the collection institutionally, but also nationally. Our oldest herbal dates to the 16th century and we hold some of the earliest British Pharmacopeias and British National Formularies. Donations are part of collection development, although we have strict criteria around acceptance. A recent acquisition of note is from the estate of the late Peter Homan, a past President of the British Society for the History of Pharmacy (BSHP), a collection of rare and historic textbooks, pharmacopeias and chemists' notebooks.

Whilst our teaching collection has a digital first policy, to provide greater access to key textbooks and resources, our flagship collection is predominantly print. This is in part due to the historic nature of much of the collection, but also reflects the aim of the flagship collections to open the collection beyond our students and staff. This has also included open access digitisation projects, such as digitisation of selected pre-1914 material with funding from the Wellcome and Jisc (<https://www.medicalheritage.org/content/uk-medical-heritage-library/>).

As well as books the library also now lends out other teaching aids including anatomical models, a drug board game and, more recently, virtual reality headsets. These different types of resources allow students to learn in a more visual and interactive way. Whilst feedback from students who have used the resources has been positive a key challenge has been the effective promotion of these resources. To promote the VR headsets and the preloaded anatomy app the library has used social media and is working closely with academics and a Learning Technologist to promote these within UCL Moodle, our virtual learning environment. As well as an important book collection the library also holds the School's archive containing school records, photos, paintings and various memorabilia, as well as



Fig. 4. Archive display case.

a small collection of artefacts, such as Victorian pill making equipment, and fragments of a bomb that hit the school during World War Two (*Figure 4*). Events like the 180th anniversary of the School of Pharmacy have helped raise the awareness of this collection through displays in the library and the School, as part of public lectures and open days. When an anniversary event has not lent itself to displaying objects, we have produced posters and, when small children have been involved, we have provided crafting activities and a reading corner, with support from our colleagues at the UCL Institute of Education. As public engagement is an important part of UCL's strategy these events, and other initiatives that increase the visibility of our collection beyond our student and staff, are increasingly important.

Looking to the future the library hopes to increase public engagement and open the archives as a rich resource for researchers interested in the history of pharmacy education and the School of Pharmacy. Campaigns focused on increasing diversity and marginalised voices could also be supported by material from the archives

with displays organised around themes such as women in science. Indeed Elizabeth Garrett-Anderson, the first English female doctor, attended the School in the 1860s (2).

A challenge for the present and future is the need to balance the competing demands for more study space and a growing physical collection. The demand for more study spaces is also matched with a need for different spaces to accommodate different activities, such as a reading room for the public to engage with our archive and space for students to use new technology like our VR headsets. Current solutions to balance the need for study space and space for our collection focus on digital first acquisitions, digitisation, the promotion of open access resources, the utilisation of other storage space both on site and in offsite storage with a regular delivery service on request, the optimisation of rolling shelving, and a positive weeding policy.

Locally, nationally, and internationally Paul Ayris (Pro-Vice-Provost: UCL LCCOS) champions open access and Open Science (3), with reproducibility and transparency of research as a mechanism to deal with crises such as COVID-19. In this spirit UCL Press, the innovative university open access publisher, led on the creation of the online 'UCL Covid-19 Research Collection', listing all UCL contributed published content (4).

Information Literacy

Since the School opened pharmaceutical education has developed and changed, as has the makeup of the student population. The School's student population is now predominately female accounting for 77% of students and there is a sizeable international student body with around 25% of students international (5).

As Pharmacy education is governed in Great Britain by the General Pharmaceutical Council (GPhC) there is a strict set of standards (6) outlining the skills, knowledge and professional behaviours students need to demonstrate. With a strong emphasis on evidence-based decisions information literacy is firmly embedded into the curriculum for the MPharm programme, a four- or five-year undergraduate degree which is the first step to becoming a pharmacist in the UK, as well as most MSc courses.

The changes to the GPhC standards in 2021 represent a significant change for the MPharm programme with more emphasis on prescribing and patient centred

care. Current redesigns of the MPharm programme include an additional clinical, professional, and scientific skills module in each of the four years prior to the foundation year. With the library involved in the current redesign of the course training on information sources, information integrity and critical appraisal will remain important, although there may be changes to where this is situated within the programme. The emergence of new AI technology such as ChatGPT (7) also offer new challenges for information literacy and teaching students the importance of evaluating information and how to utilise such tools responsibly. UCL has a number of Working Groups looking at the use of AI in education and initial briefings have already been produced for students (8) and staff (9).

Other changes include the development of new interdisciplinary programmes that utilise our resources and expertise. Based at UCL's East London Campus the MSc in Biotech and Pharmaceutical Management spans several disciplines and the library works closely with other liaison colleagues, in other subject areas, to support students undertaking this course. Other future developments include the possibility of a joint programme with University of North Carolina and Monash University as part of the global PharmAlliance partnership of three Pharmacy Schools (<https://www.pharmalliance.org/>).

Non-traditional support

As well as support with their studies the library is also actively involved in creating a sense of community amongst our users and supporting student's wellbeing, something we are increasingly seeing in academic libraries (10). Initiatives include advertising UCL student support services and wellbeing events, community jigsaw puzzles, colouring in and dot to dot, an origami station, treasure hunts, quizzes and, the most popular initiative, our two robotic therapy library cats (*Figure 5*).

The library is also an active contributor to the University's sustainability campaign Green Impact (<https://www.ucl.ac.uk/sustainable/staff/green-impact>). As part of this the library has invested in several plants to make the library a greener environment and during induction week the library gave out seventy plant cuttings to new students. The library also offers a book swap and encourages students to think about recycling and their use of energy.



Fig. 5. Jigsaws and origami.

Customer feedback

Always keen to improve our services, and to ascertain the impact of our public engagement activities, we rely not just on national UK surveys such as the annual National Student Survey (<https://www.officeforstudents.org.uk/advice-and-guidance/student-information-and-data/national-student-survey-nss/>), but also feedback forms at the end of training sessions, comments on our online enquiry service and feedback campaigns which utilise local surveys, noticeboards, social media and other interactive mechanisms.

Conclusion

The UCL School of Pharmacy library, like the institution it supports, has changed much over its 180 years. Changes which reflect the experiences and challenges many libraries face in terms of space, collection management, developments in technology and pedagogy. We hope to stay relevant by learning from our colleagues, utilising feedback and UX, and by engaging with UCL in its public outreach.

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