



The Open University

**WELL DONE** to all involved in EMAs & Exams on the J presentation modules!  
Many thanks for all your hard work and best of luck to those awaiting results!

## Welcome & Notices

Please take note of the following events:

- Many thanks to all who participated in the **AL Staff Development Event** on 19 May 2023 – **great to see you all!**
- **Online Summer School** – 31 July to 25 August 2023 – **register by 21 July [here](#)**.
- Applications are currently open for the **Royal Society of Chemistry Teacher Training Scholarships** – see [here](#).

## AL Representation opportunities

Would you like to represent your AL colleagues as a member of a Central Committee or Group?

**AL Reps** are currently needed for the:

- Qualifications & Assessment Committee
- Student Experience Committee
- OU Safeguarding Group

Find out more about the role and how to apply [here](#). The **deadline is 26 June 2023**.

## Chemistry and Materials Cluster

The [Chemistry and Materials Cluster](#) are a vibrant bunch of interdisciplinary chemists, biologists, and engineers, as academics, PhD students, and technical staff, with wide ranging expertise engaging with the wider academic community, industry, educational, public partners and policy makers to further the understanding of chemistry and material sciences and their applications to benefit society. Although our interests are diverse, they do synergistically fall in line with the goals of The Open University's [Open Societal Challenges](#) tackling some of the key societal challenges of our time: Sustainability, Tackling Inequalities, and Living Well.

Research activities include: Polymer research (microplastic contamination, polymer ageing, biodegradable biopolymers, polymer characterisation/development/modifications); Synthesis and characterisation of novel molecular constructs and materials development for applications in health, therapeutics, and diagnostics; Computational chemistry modelling of DNA and RNA arrangements in viruses and Alzheimer's tangle proteins interactions with metal ions; Materials development for applications in wastewater treatment, and energy harvesting, storage, and recovery.

Many of our group are also involved in producing and delivering chemistry focused undergraduate modules including:

- [S215 Chemistry: essential concepts](#)
- [S248 Chemistry in life: food, water and medicines](#)
- [S285 Investigative approaches in biology and chemistry](#)
- [S315 Chemistry: further concepts and applications](#)

If you would wish to discover more about our research and cluster, please contact cluster coordinators:

[Nicholas Power](#) or [Ellen Heeley](#).

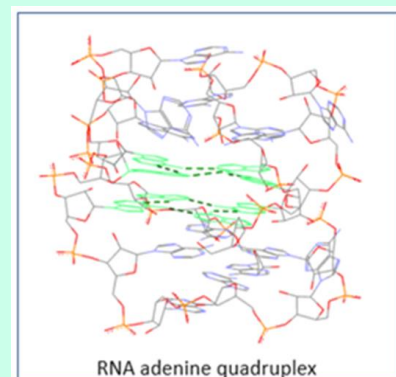


Fig: Modelling of potential adenine quadruplexes based on SARS-CoV-2 RNA.

# Get to Know FutureYOU

**FutureYOU** is an online Personal Development Planning (PDP) tool to support learning and to help achieve success. FutureYOU provides a structured approach to assist with understanding and setting goals (career, learning or personal development) and keeping track of skills gained. This can keep you motivated and assist in achieving success.



The OU aims to support students to understand the value of their life, study and work experience and make sure this is an integrated part of their journey. One way in doing this is through Employability and Personal Development Planning. FutureYOU brings together PDP elements in an easy-to-use tool by focussing on:



Employability supports students in developing their careers, raising their aspirations, and enhancing their contribution to society



FutureYOU is an interactive tool which brings together Employability and PDP giving students the opportunity to reflect and evaluate specific elements of their learning on modules



Personal Development Planning is a process where students can develop and track their own personal learning journey

**FutureYOU** is accessible via our Science Study Site [here](#).

Additional information on Employability Skills in general can be found [here](#).

## New Health Sciences Module – SK190 Body in Balance

We are very excited to introduce our new L1 module: **SK190 Body in balance**



**SK190** explores a wide range of topics, including genetics, immunology, anatomy and physiology.

Using the theme 'body in balance' students will study the human body in health and disease and will learn major body systems, such as the cardiorespiratory, reproductive, nervous and musculoskeletal systems. Alongside developing an understanding of human biology, as students progress through the 10 topics presented in the module, key employability are developed, including data interpretation, data handling and communication skills.

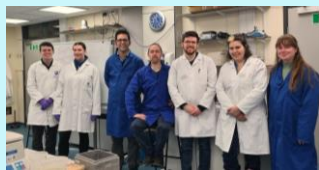
In this exciting online module, students will have access to activities in the Open Health and Open Science Laboratories, and among other tools, will use the digital microscope, an Augmented Reality Heart application, and an interactive 3D cell and a 3D brain, and be introduced to a statistical package which will be available throughout their studies within LHCS. Lectures, workshops and focused skills-sessions will help to support skills and consolidate understanding of module material and provide an opportunity to develop community with other students. Additionally, by participating in some of the activities in the module, students will have the opportunity to gain two microbadges (Stage 1 Participating online and Stage 1 Scientific skills) which can be used as evidence of the development of key skills.

Forming a bridge between L1 and L2 modules, **SK190** aims to build on scientific skills and knowledge gained from entry L1 modules such as **SDK100**. All students will receive a welcome pack – including poster, augmented reality postcards and **SK190** workbook – at the start of the module.

**Vikki Haley** and **Karen New** are co-chairs on production of **SK190** and are looking forward to seeing this module go live in October 2023 – perhaps we'll see you then?

## Meet one of our students

## Meet one of our tutors



Students (left) and tutors (above), photos by Kayleigh Smith

**Joe Johnson**, a final year student on the BSc Combined STEM writes about his experiences attending the SS032 lab school on campus in January:

The **SS032 further skills lab school** was great way of gaining practical experience of the tools and techniques we are taught about in the course. The lab course was four days long and split into two halves, one focusing on RNA analysis and the other on protein analysis. Each day began at 9am and finished at 5pm. We had an hour for lunch and several shorter breaks throughout the day in which you can explore the campus and get to know the other people on the course.

In the protein lab, we practiced gel electrophoresis and Western blotting to identify the presence or absence of specific proteins within a sample from leukaemia cell lysates to help determine the efficacy of chemotherapeutic medicines, and other techniques involving antibodies. In the RNA lab, we used qPCR to determine the quantity of GAPDH mRNA in a cell, produced cDNA by reverse transcription of mRNA to be used in RT-PCR, and determined the accuracy of different PCR techniques.

I would recommend attending the lab school as it provided not only valuable practical experience of fundamental bioscience techniques, but also a way of communicating with other students on similar courses, and with tutors, who can provide an unparalleled learning experience and general advice from further education to biosciences careers information. The lab school provides a taster of real life biological research and so completing the lab school would provide you with an idea of whether or not you believe biological research is a suitable career for you.

**-Joe Johnson**  
**BSc Combined STEM (student)**



My first OU course has changed my life! For me, it bridged pharmacology gaps when working as a Medicinal Chemist at Roche and was the beginning of my OU 'journey'.

With its concise, 'can do', teaching method, the OU gave me both the confidence and the tools needed for my career to take off. After being part of the Roche Saquinavir team, I embarked on a PHD at Cambridge University, and went onto work at GSK then Merk. Completing a second Biology OU course gave me the confidence to start my own Medicinal Chemistry training company.

When I started as an AL in 2008, I vowed to give back to my students what the OU gave me and help each one achieve their dreams. I currently have the privilege of tutoring on 3 courses: **S390** equips students with the writing and interpersonal skills needed for a research scientific position in industry; **S350** supports skills in effective science communication and **S248** showcases chemistry across 3 of the most engaging topics: food, water and medicines.

While tutoring **S346** (Drug design and synthesis), **S807** (Molecules in Medicine) and **S810** (MSc Project module), I came across truly humbling stories of courage, self-determination, and resilience. I saw students with no formal scientist background, battling against all odds, become innovative researchers, Laboratory heads, GP's and ALs themselves. A highlight in my OU career was attending the home graduation the OU organised for one of my MSc students. Ian was almost completely paralysed and had completed his 15K Medicinal Chemistry thesis. Iain has now written two published books using eye guided software typing 1 letter every 20 seconds, in which he praises the OU for his achievements.

In my spare time I play (badly) the harp and lose track of time doing calligraphy and illuminated letters.

**-Corinne Kay**  
**Associate Lecturer**

# Meet Tom Stubbs – New Lecturer in Biology

May has been a very exciting month for me, as I recently joined the OU as a **Lecturer in Biology**. Initially I will be joining the module team on **S295**, and I look forward to sharing my interests in evolutionary biology and biodiversity.

I have always had a passion for the natural world. When at school, I variously aspired to be a wildlife filmmaker, zookeeper, and palaeontologist; inspired by Sir David Attenborough and Jurassic Park! It was during my UG studies that my enthusiasm for an academic career grew. I became fascinated by patterns in the natural world, whether it be the rise and fall of biodiversity through time, or the mechanisms that produce the incredible diversity of life. These topics became the subject of my masters, PhD, and postdoctoral research at the University of Bristol.

My first month at the OU has passed very quickly, thanks, in part, to 3 bank holiday Mondays! I've met so many new colleagues and encountered even more new acronyms and module codes. Compared to my previous school, the school of LHCS is incredibly academically diverse, and I've had lunch and coffee with material chemists, health scientists, and animal physiologists.

Looking ahead, I am excited to teach on modules across Biology. I also hope to build a research team that uses computational methods to explore evolution, biological diversity, and anatomy. One of my proudest achievements so far is my commitment to involving students and collaborators in my research projects, and working with many of them to publish their work in scientific journals. This is something I really wish to continue and expand upon at the OU.

If you have a passion for studying evolution and the natural world and would like to discuss shared research interests or potential research opportunities, it would be great to hear from you and please [get in touch](#).

**-Tom Stubbs**  
**Lecturer in Biology**

## LHCS summer enrichment events

Similarly to last year, we will be running a number of **enrichment events** in **June, July, August and September** which are open to all. The first series of talks will be held **11–26 July 2023**.

Further dates to follow. Talks/workshops range from 'working in a NHS lab' to 'drug delivery processes', 'biofilms in our pipes' and more. In addition to these interactive sessions by ALs and academic staff, we will be running online journal clubs (details tbc – updates to follow).

Programme for **26 & 28 June 2023** and further details [here](#).

If you would like to volunteer a contribution for a 'talk' or 'workshop', please get in touch with Heather: [heather.fraser@open.ac.uk](mailto:heather.fraser@open.ac.uk)

Do you have something to share or would you like to get involved in the Newsletter?

We are always looking for contributions.

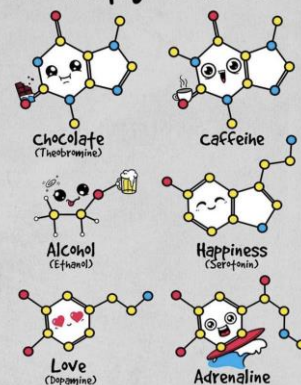
We'd love to hear from you – please contact: [STEM-LHCS-Teaching@open.ac.uk](mailto:STEM-LHCS-Teaching@open.ac.uk)  
Please include 'LHCS newsletter' in the e-mail subject header.

The LHCS Newsletter is brought to you by Caroline Hyde, Marisa Loach, Fi Moorman, Eleanor Crabb, and Simone Pittman.



Wishing you a great summer and **all the good stuff!**

Chemistry is awesome



[@chemistdiaries](#)