**Richard Doveston, Leicester Institute of Structural and Chemical Biology (07.06.22)**

My name’s Richard Doveston, I’m a Lecturer in Chemical Biology, and my research group is based in the Henry Wellcome Building, but we’re also very active members of the School of Chemistry as well, which is in the George Porter building.

All of the research my group does sits at the interface of Chemistry and Biology, so everything we do is interdisciplinary to some degree or another. I think the highlight of our research so far is to develop what could be a potentially new class of drug, which works in a very unique way, it works by sticking proteins together, so we call them molecular glues. And our glues are again unique because they irreversibly bind to one other protein, and this could convey really useful properties, because we could potentially use less of a drug, and it might have a greater effect than traditional drug molecules.

Ultimately by working with people in different disciplines, in our case – we’re chemists, we work with biologists – they can really show how our molecules can have a desirable effect in living systems, and ultimately, if you want to develop a drug, which is our dream, then that’s what you’ve got to do – you’ve got to be able to show that it works in a living system. We use interdisciplinary ways of working in order to break down the barrier between the chemistry side, which is focused very much on atoms and molecules, and the biology side, which is course all to do with living things.

The biggest challenge, probably, is understanding each other and communication. So, as chemists, we know how long a certain experiment might take us to do, and perhaps the pain involved in conducting that experiment, but we have no idea what our collaborators are going through in order to do the experiments on our behalf, and so it’s really important to foster a close relationship where you have a good understanding. And through that of course, comes this symbiosis of research, where our ideas might inspire our colleagues to do different experiments and vice versa.

I started off as an out-and-out chemist, and slowly my interest in solving biological problems using chemistry grew and grew, and so I moved closer and closer towards that boundary, and began to reach out, and in order to answer those questions I had to find people that could help us do it. I think ultimately, be guided by the science, think about the scientific question you want to answer and be ambitious. If you’re truly asking a high, hard-hitting, impactful, ambitious question you are going to have to reach across disciplines, and the answer will be obvious as to who to reach out to.

So my first favourite walk is probably from the Henry Wellcome building on to New Walk, and to stroll up and down New Walk between the Georgian and Victorian houses there, I really like that; my second favourite walk is to cross over the park, past the war memorial, and then just go and window shop up the Queens Road.