Charting the path to better research

by Chris Willmott, Science Editor

The story is told of a man who undertakes a journey in his car. Sufficiently confident that he knew the location of his destination, he has set out without the aid of appropriate satellite navigation, a decision he starts to regret after his third or fourth U-turn. Eventually, he succumbs to the only option left open to him; he winds down his window and describes his intended destination to a passer-by. The latter listens intently, nods appropriately and then declares “unfortunately, you can’t get there from here”.

I was reminded of this anecdote recently when thinking about research culture. It is widely acknowledged that the prevailing patterns of how science is conducted and published are broken. But there is also a scepticism, in certain quarters at least, that we cannot get to a better place whilst setting out from our current location. It is certainly true that starting from scratch might give us an easier route to that goal, much as our errant driver might have been better off plotting a more sensible route whilst still at home. However, for him, and for us, resignation to the impossibility of the task is not an option – research culture must change.

Such an assertion, of course, rests on the assumption that we all know what is meant by ‘research culture’. In this, I find the Royal Society’s definition to be particularly helpful:

“Research culture encompasses the behaviours, values, expectations, attitudes and the norms of our research communities. It shapes the ecosystem in which we operate, it influences who is doing research, what research is done and how that research is communicated”.

Regarding the influence of research culture, it continues:

“Research culture impacts on a whole range of areas in the research system, including the integrity of research, diversity and inclusion in research, the career paths that researchers follow, reward and recognition, open science and the ethos of collaboration in the research system”.

In this issue of The Biochemist, we’ve tried to delve a little deeper into some of these issues. Inevitably, given the constraints of the magazine format, we’ve only managed to scratch at the surface of some of the potential topics. Nevertheless, I’ve gained much from the insights of our authors whilst reading over their contributed articles. I hope you also find this an interesting chance to walk briefly in another person’s shoes. Working together, we can hopefully map out a route to a better destination.

I’m delighted that we are also able to bring you a Beginner’s Guide to RT-PCR, qPCR and RT-qPCR. These techniques have been brought into the spotlight during the recent Covid-19 pandemic. This latest article in our Beginner’s Guide series sheds a timely light on the differences between the different methods and offers final clarification of whether RT stands for Reverse Transcriptase or Real-Time.