

Translational Research

My NHS ID badge describes me as a Translational Scientist (although I have been called a transitional scientist and I wonder sometimes if this was more accurate) and I often get asked what this is. I think the more important questions are how does someone become one and why. A lot of you reading this article wouldn't describe yourselves as translational scientists but are and probably have been so since before the title was invented. In fact, from my experience, Renal Research relies strongly on the ability of its basic scientists to interact with its clinicians. So how did this happen to us all and how can we train others like us? As scientists we're all bitten by the curiosity bug and are blessed with an altruistic streak. Ergo place us in an environment with real patients and we want to know more about them and help them. Thankfully this is also the environment where we can. All Renal departments have meetings where patient information is discussed in some form and these meetings can often be attended by scientists. For all people new to the Renal area a good place to start are histology meetings. This can be a fascinating way to learn a whole myriad of things including general structure of the organs involved, clinical terminology, treatments and tests for diagnosis. The key to getting the most out of this is to go with someone who knows what's going on. There are often Clinical Fellows in your lab doing PhDs who attend this type of meeting. Go with them and then on the walk back to your lab get them to clarify anything you don't understand. This is a reciprocal training exercise as the questions you come up with may involve a way of looking at things that is different to the norm. Within Renal departments there are often clinically orientated seminars. Don't be afraid to attend these. Even if you only understand the first 10min there will be something that you bring away from it (including the free lunch that the rep has provided!). These events allow you to network with clinicians that are not as involved in the academic environment and could foster new collaborations and opportunities for you both. Learn about all aspects of the system you're interested in; if you're a physiologist then understand the genetics, if you're a cell biologist then try some immunology, etc. Find out what clinical trials are going on or being planned in your department to identify where new advances are being made. Is there something you could contribute such as the suggestion of a new biomarker that they could investigate at the same time. Learn all about the statistical, research governance and ethics aspects so you can see what is involved in the set up of trials. If you are part of a medical school there may also be opportunities to access some of the lectures given to medical students either online or by attending in person. If you are interested in new ways of diagnosing a particular condition it may also be worth your while spending time in the clinical labs to find out how things are done and if the funky new test that you're developing can be applied at a practical level in this busy environment. Find out about the drugs currently used to treat the condition you're interested in by talking to your clinical colleagues, they will be able to tell you all of the limitations and side-effects too. Attend a ward round to get a feel for what happens in the clinical setting, or, if you can spend, a week on the unit learning about all aspects of what goes on. If its at all possible in your environment find out about the process of drug discovery and the timeframes involved. Most importantly talk to other renal scientist (via our website) and ask for advice and help.

A number of courses have now begun to spring up in the field of translational science which build on the same basic principles of training that have been the foundations of our experiences in Renal Research. These use specific disease areas as models of how to investigate any other disease. They provide a mentoring system which pairs the scientist with a clinician, a lead nurse, a pathologist and other relevant healthcare professionals. In addition, and importantly, it provides access to patients and support groups. These can be a hugely valuable insight into the disease process and the problems. Often what we choose to investigate in the laboratory is dictated by publications etc but are we really investigating the problems that the patients find important? It is also an amazingly motivating experience to talk to the person who is experiencing the condition.

I believe that in Renal Research we are exceptionally good at training translational scientists; partly due to the complexity of the system we investigate providing an excellent overview of all aspects of pathological processes. Within the Renal Association there has always been a good interaction between scientists and clinicians, particularly at the annual conference, and we should strive to maintain and develop these links. What we also need to do is retain Renal-trained scientists within the field, particularly as we are often the people who train Renal Clinical Fellows when they arrive wet behind the ears at the laboratory doorstep. The Renal Association website can help with this aspect by advertising job opportunities in other renal labs across the country. Please let us know if you have any opportunities coming up.

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