**Kidneys for Life (KfL) funding of Research Projects**

KfL sponsors research projects with the primary objective of improving outcomes for patients with kidney disease and related conditions. Research is expensive requiring skilled staff, specialised equipment and necessary consumables and can take significant time. The research process can be highly variable depending on whether it involves a basic science project, a qualitative methods review, a clinical study, a clinical drug trial or a medical device trial to answer the questions.

This can start with having good, often novel ideas and the nature of research ideas is that some prove to be good and others turn out to be worthless. KfL has access through its trustees to state of the art understanding of relevant science, clinical and surgical fields that impact on kidney disease and related conditions. All ideas for projects funded by KfL have to pass scrutiny to see if they meet a minimum level of quality.

The first phase of research is then to test the basic idea often through experimentation and collecting data to see if this data supports the concept. We call this phase of the research process “pump priming” i.e. putting in enough early effort to get enough pilot data to see if the idea has some substance and is worth pursuing. KfL provides “pump priming” grants up to £15,000 over approximately 1 year to get the research project through this early phase. There is no other source of funding available for researchers to test ideas at this early phase.

The second phase of research is often called “proof of concept” and becomes much more expensive with grants available from  a number of national research bodies which cover research expenses of £40-100,000 over 1 or 2 years. In order to be successful in getting a proof of concept grant, it is essential that researchers have the pilot data and a research story from the pump priming stage in order to compete and stand a chance of funding at this national level, which is what KfL can provide.

The third stage of research would normally involve a detailed project grant over 3 years costing £200k- to £1 million depending on the nature of the research. Grant Funders expect a robust research story and set of interesting and often novel data in applications at this level.  Such grants are available from the Medical Research Council (MRC), National Institute of Health Research (NIHR), National Medical Charities and are fiercely competitive. Even with good independent reviews from International experts, the general lack of research funding in UK means that such projects can be highly rated for funding but actually are not funded.

Depending of the nature of the research, it might require further funding for a randomised, double blind clinical trial for a new drug or procedure costing many millions of pounds. Similarly, if a new medical device has been developed, it has to go through a strict regulatory process  (CE marking) costing time and money  before it can be used on patients.

KfL, with the resources available to us, believe that we can make the most impact on moving research forward by supporting research ideas at the early stage by  making available “pump priming”  grants.

**An example:**

KfL sponsored a pump priming grant in 2010 to enable the development of research reagents to allow measurement of autoantibodies to the kidney autoantigen (called PLA2R) in membranous nephropathy (MN). With the pilot data  from this small grant on detecting anti-PLA2R, studying anti-PLA2R levels in patients and studying the structure of PLA2R, we were able to get a project grant (in 2013) to understand where the antibodies reacted with PLA2R and  the effects of the antibody on podocytes cells in culture. In addition we were able to attract funding from MRC (in 2013) for a large national study on MN recruiting over 800 patients from all over the UK to understand how anti-PLA2R antibodies affected patients outcomes. Both of these studies will finish in 2016 and will have costed over £1 million.

Recently, from NIHR i4i, we have been granted funding to develop the first PLA2R peptide coated immunoadsorbent column for removing anti-PLA2R antibodies from patients and developing this new device will take another 2-3 years and over £ 0.5 million pounds in research funding. So look at the effect of a small grant from KfL !

*Not every grant goes as far as this. Sometimes testing what seems to be a good idea comes to nothing. This is the nature of research !!*