



FUNDING VITAL RESEARCH FOR  
NEPHROTIC SYNDROME

## Latest Research News - 28 January 2010

The academic renal unit continues its busy and wide-ranging activities in the active search for cures for NS. Major news includes:

We have moved! In early January 2010 the whole unit, along with all the other University research groups at Southmead hospital moved into a stunning new purpose built building on the edge of the site. The whole of the second floor is dedicated to basic scientific research, while other floors include lecture theatres, a library and teaching areas, and offices for the UK Renal Registry.

This provides an inspiring working and networking environment for all our researchers, and has been greeted with enthusiasm. We hope to hold an open day very soon to allow NS families and generous fundraisers and donors to come and see where it all happens!

Dr Richard Coward has returned from Toronto, and is busy setting up the sophisticated new techniques he learnt over there, in the labs here. This will be a major boost to the capabilities of the laboratory programme we have now established in Bristol.

Dr Hugh McCarthy, a trainee paediatric nephrologist, has commenced a full time project to help establish the SRNS Rare Disease Registry (see below).

We are also busy organizing the next International Podocyte Congress, to be held in Bristol in June. This is the first time this meeting has been held in the UK, and will feature all the best researchers from around the world in this field. This is a testament to the reputation of Bristol as one of the leading research groups worldwide, and fittingly Wendy Cook will deliver the opening address entitled 'Why you are all here'.

Progress in research continues encouragingly.  
The main areas continue to be:

1. Establish the components in circulating blood plasma that cause damage to the podocyte cell. We have identified a group of proteins that cause specific effects on the podocyte, and are actively seeking and collecting plasma samples from patients with active disease in order to extend and validate these findings.
2. We are simultaneously looking at the effect of these plasma proteins on specific 'pathways' within the podocyte that become active in disease states. This would allow targeted therapies to be tried that can block the activity of these pathways, and thereby reverse the damage to the podocyte.
3. The work on Hemopexin continues, as a candidate plasma protein that causes damage to the podocyte in NS. We can now generate Hemopexin in the laboratory in order to be able to study its effects in more detail, and work out how this type of protein can damage the podocyte.
4. The renal Rare Disease Registry (RaDaR) is an exciting development for the UK, and is being developed by the Bristol team, in collaboration with Birmingham. The vision is to collect all patients with Steroid Resistant Nephrotic Syndrome (SRNS) - which includes FSGS - on a national web based database which will be continually updated. The website will also allow patient/parent access, clinical information, discussion groups and access to the latest literature.

Additionally blood samples and DNA will be collected from all patients, thus allowing for the first time detailed clinical and biological studies to be pursued on large numbers of patients in the UK. This will be the most powerful way to gather new information on the disease and also permit the design of the highest quality clinical trials for new treatments in the future.

Most of these activities have been helped by significant contributions from NeST, and the Bristol team remain ever grateful for the enormous and invaluable help the charity provides.