



Shire Innovation Fund for Specialist Registrars in Gastroenterology Newsletter

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Welcome to the latest issue of the Shire Innovation Fund for Specialist Registrars (SpRs) in Gastroenterology Newsletter.

The Shire Innovation Fund was launched in May 2010 and is an on-going initiative organised and funded by Shire Pharmaceuticals as part of its continued commitment to supporting initiatives that improve the outcomes of patients with gastroenterology disorders.

Project Fund

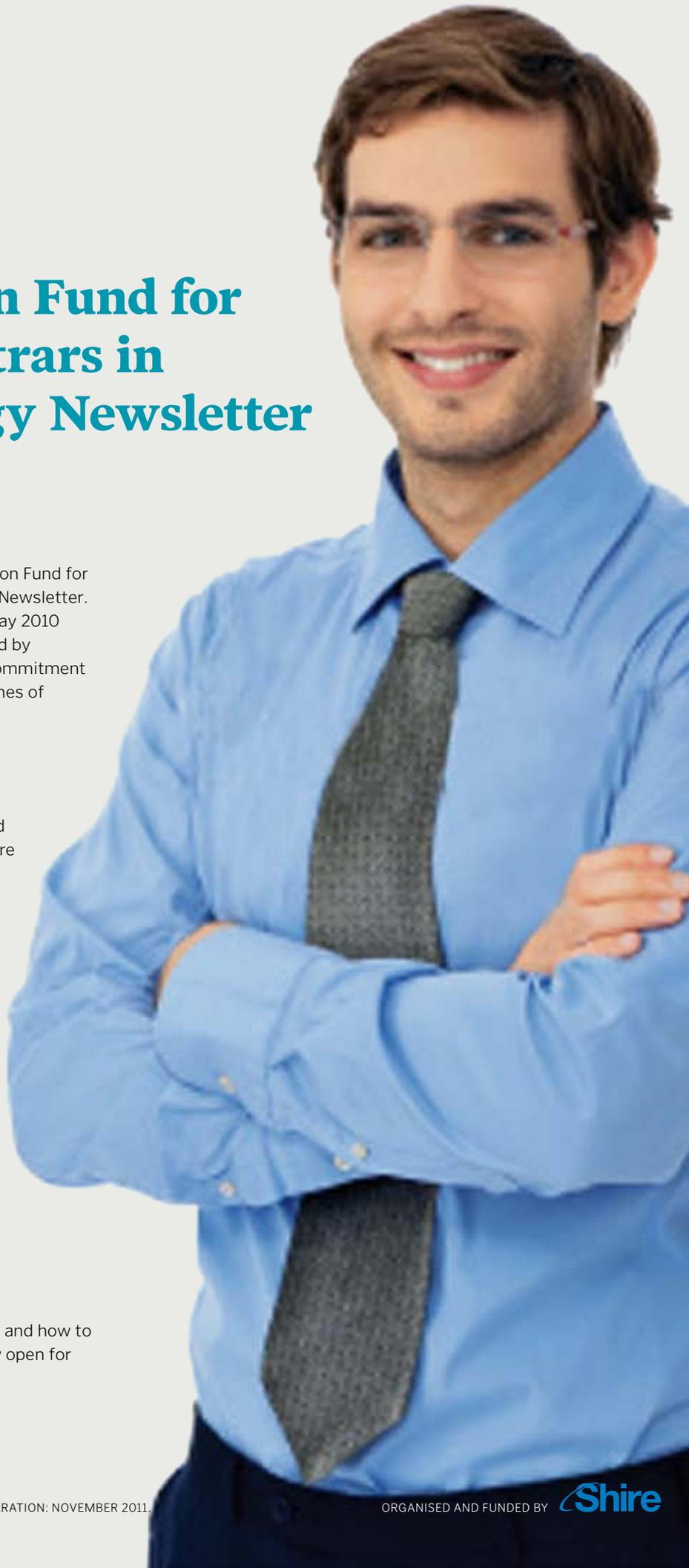
In this second round of project funding in 2011, two applicants have been awarded grants toward research projects that will ultimately enhance care for gastroenterology patients in the UK. You can find out more about the successfully funded projects on pages three and four.

19th United European Gastroenterology Week (UEGW) Travel Bursary

Seventeen applicants were awarded funding to help pay for their registration and travel expenses to the UEGW congress held in Stockholm, Sweden from 22-26 October 2011, where they presented their research posters. Details of the awarded travel bursary applicants and summaries of their abstracts can be found on pages five to eight.

How to apply

Overleaf you can find details of the judging panel and how to apply for the next round of funding, which is now open for applications and will close on 4 January 2012.



What is the aim of the initiative?

The aim of the Shire Innovation Fund is to support SpRs working in gastroenterology who want to conduct research or develop projects to benefit patient care in the UK. In doing so, two Funds are available twice a year.

How are the Funds comprised?

The first Fund of £7,500 is made available twice a year (total amount of £15,000 per year) for projects that will benefit patient care in the UK. The Project Fund is open to all types of proposals that will enhance patient care or local gastroenterology services, such as research activities or audits.

A second travel bursary Fund of £8,000 is made available twice a year (total amount of £16,000 per year) and awarded to applicants whose abstracts have been accepted for presentation at United European Gastroenterology Week (UEGW) or European Crohn's and Colitis Organisation (ECCO) Congresses, which will benefit patient care in the UK.

No limit has been set on the number of applications that can be awarded, nor to the value of an individual application, within the total Fund amount.

Who can apply for funding?

Any SpRs at grade three or above who are physicians or surgeons, or in related specialities, such as pathology or radiology, including research fellows, can apply. SpRs can apply to either or both of the Funds.

What is the application process?

An application pack can be downloaded from www.shireinnovationfunds.co.uk or requested by email from ShireInnovationSpR@synergymedical.co.uk. All applications must be accompanied by a copy of the applicant's CV and a letter of support from their consultant/research supervisor.

The deadline for the next round of both Funds is 5pm on 4 January 2012.

Successful applicants will be notified by 21 January 2012.

The judging panel

All applications will be reviewed by an independent judging panel comprising the following distinguished members:

Professor Alastair Forbes – University College Hospital, London.

Professor Chris Probert – Royal Liverpool and Broadgreen University Hospital NHS Trust.

Professor David Rampton – Barts and the London NHS Trust.

Dr Stephen Ryder – Nottingham University Hospitals NHS Trust.

The applications are provided to the judges in an anonymised form by Synergy (a medical education company providing logistical support), so that an unbiased and fair decision can be reached. Shire does not receive any details of the applications or the applicants until after the judging process has been completed.



Shire Innovation Fund for SpRs in Gastroenterology: Project Awards

Dr Elizabeth Pettitt receiving her award from Professor Jack Satsangi.

A total of ten SpRs applied for the Shire Innovation Fund for SpRs Project Fund in this round – the most since its inauguration.

Two applicants received grants and were presented with certificates in recognition of their success.

The successful applicants were:

Dr Elizabeth Pettitt,
SpR in Gastroenterology at the Royal United Hospital Bath NHS Trust

Dr Paul Trembling,
Clinical Research Associate at the Centre for Hepatology, University College London

Dr Elizabeth Pettitt

SpR in Gastroenterology at the Royal United Hospital Bath NHS Trust

AWARDED FUNDING FROM THE SHIRE INNOVATION FUND FOR SPRs IN GASTROENTEROLOGY FOR HER PROJECT ENTITLED: DISSECTING THE ROLE OF TOLL-LIKE RECEPTORS, TH CELLS AND MICRO-RNAS IN THE PATHOGENESIS OF IBD.

Why did you apply to the Shire Innovation Fund for SpRs in Gastroenterology and can you tell us a little bit about your research?

A colleague who had previously been awarded funding told me about the Shire Innovation Fund for SpRs in Gastroenterology, so I applied and was pleasantly surprised to get the funding.

I'm a fifth year gastroenterology registrar and I hope to sub-specialise in luminal gastroenterology with a particular interest in IBD. I'd been working at Barts and the London NHS Trust which has really good links with the University of Bath. I have always been keen to do something that would look at pharmacology and therapeutics in IBD. The university has a really innovative pharmacology department, so conversations began and I started to work there.

My research is aimed at getting a better understanding of the cellular and molecular basis of IBD in the hope that this will lead to greater insights into its pathogenesis, diagnosis and potential therapeutic targets. I will look at toll-like receptors (TLRs), which are transmembrane proteins that act as microbial pattern recognition receptors. When they are activated, they generate an immune response that is expressed throughout the GI tract. My professor is also interested in looking at all aspects of TLRs, as some seem to have a pro-inflammatory role, while others have an anti-inflammatory role.

How are you going to "deconvolute" the role of toll-like receptors?

We will attempt to determine the expression of TLRs in human colonic tissue and identify which MicroRNAs are involved in TLR signalling and regulation. We will also look at mouse models of colitis and how changing the expression of TLRs influences disease patterns and severity. We hope to tie it into models of dysplasia. We have some techniques that will help us do this, such as PCR, western blotting, amino-staining and subcellular localisation.

How do you propose to link T-helper (Th) cells to TLRs?

There is a lot of work being done with Th cells. TLRs are expressed throughout multiple cells in the immune system, so we are hoping to tie it all together. The Th17 pathway has generally been associated with an increased susceptibility to inflammation and we want to isolate any interplay between Th17 and toll-like receptors.

How did it feel to receive an award from the Shire Innovation Fund for SpRs?

It felt amazing. I immediately got on the phone to all my supervisors to tell them we had been awarded some funding. It was brilliant news for us!

What would you advise SpRs in Gastroenterology who are thinking of applying?

I applied using the website. I think it is important for SpRs to try and have a clear outline of what they want to do, plan the project well and find an area they find interesting. I did not have that much experience in writing research proposals, so I asked my supervisors to proof read it. I also made sure I had all the necessary information in the proposal, so it was as clear as possible in terms of our goals.

Do you think you might apply again?

I would like to present the data in 2012 and apply for a travel bursary to UEGW, so yes.

Dr Paul Trembling

Clinical Research Associate at the Centre for Hepatology, University College London

AWARDED FUNDING FROM THE SHIRE INNOVATION FUND FOR SPRs IN GASTROENTEROLOGY FOR HIS PROJECT ENTITLED: PERFORMANCE OF BIOMARKERS OF LIVER FIBROSIS TO IDENTIFY HEAVY DRINKERS AT RISK OF LIVER DISEASE.

Why did you apply to the Shire Innovation Fund for SpRs in Gastroenterology and can you tell us a little bit about your research?

I heard about the Fund through a colleague and applied because Shire had opened the Fund up to research projects outside IBD. Now the Fund includes hepatology projects, so I thought it would be a good opportunity. I am looking at the application of non-invasive markers of liver disease with a particular emphasis on applying them to the general population to identify people at risk, especially those who exhibit no physical signs or symptoms. I would like to try and identify these people before they develop chronic liver disease.

Why are you accessing UK Collaborative Trial of Ovarian Cancer Screening (UKCTOCS) samples?

UKCTOCS is a large clinical trial investigating improved screening tests for ovarian cancer. It represents a sample of the general population and has collected serum samples from over 200,000 women recruited from general practice. UKCTOCS will only accept projects it considers to be academically useful and that could potentially benefit patients. The reason I applied to the Fund was to pay the fee to be able to access these samples, which are frozen and stored commercially on behalf of UKCTOCS. I will then look at the biomarkers in this large population.

Regarding the biomarkers of fibrosis in people who use alcohol hazardously, is the idea to devise a test so you can identify these people?

Alcohol is a major cause of chronic liver disease in the UK, but it is often silent and only becomes apparent in advanced stages when you see complications of cirrhosis, such as bleeding into the gut or the need for a liver transplant. Of those people that drink hazardously, only one in five will develop liver disease in the form of cirrhosis and we still cannot predict which ones will end up with liver problems in the long term.

The Enhanced Liver Fibrosis Test has been shown to predict complications of cirrhosis in people with known liver disease. I would like to see if this test can be applied to people who drink heavily, but do not have any obvious liver disease. My project will target people that have been identified as hazardous drinkers and then see which ones are more at risk of developing liver problems. There is a need to identify patients who are at risk of liver disease and its complications, so you can focus on intervention. However, the question of whether it could be used as a general population screening tool is different issue.

How did it feel to be awarded funding from the Shire Innovation Fund for SpRs in Gastroenterology?

I was very pleased. I feel mine is a worthwhile project that has a potential for patient benefit within the next five years. Accessing the samples was a crucial step, so getting the funding to be able to do that was vital to starting this project.

What would you advise SpRs who are thinking of applying?

I would encourage SpRs to apply because the online application process was very straightforward, and any SpRs in training who want to get a project off the ground should view the fund as an ideal way of doing that.

Do you think you might apply again?

I'll be starting the project soon, and if things develop further I may apply for funding again.

Shire Innovation Fund for SpRs in Gastroenterology:

UEGW Congress Travel Bursary Awards

For this round of funding, the following 17 SpRs were awarded travel bursaries to support their oral or poster presentations at the UEGW Congress. Each was presented with their awards at the Congress by Professor Jack Satsangi, Western General Hospital, Edinburgh, who was a member of the steering group who helped devise the Fund.



Dr Faisal Abid

SpR Gastroenterology at Hull Royal Infirmary

SHORT COURSE TREATMENT FOR HEP C GENOTYPE 2 AND 3 - A MULTICENTRE EXPERIENCE IN THE UK.

Dr Abid and his team reported their experience of 12 week treatment for hep C genotypes 2 and 3 and patient suitability for short course treatment. They concluded that short course combination therapy with peg-interferon and ribavirin for these genotypes had similar outcomes as standard treatment in patients who had low pre-treatment viral titres for genotype 3 and acquired rapid virological response (negative PCR at 4 weeks). According to the study, other variables that can improve the success rate included patients with a BMI of less than 27.



Dr Alenka Brooks

SpR Gastroenterology at Royal Hallamshire Hospital, Sheffield Teaching Hospitals NHS Trust

INITIATION OF THIOPURINES IN IBD: TIME TO METABOLITE STEADY-STATE (S-S) AND CLINICAL EFFICACY.



Dr Brooks hypothesised that the time to reach s-s of 6-thioguanine nucleotides (TGN) is variable and examined the influence of the thiopurine methyltransferase (TPMT) genotype on TGNs, thiopurine efficacy and toxicity in year one of treatment. Dr Brooks and her team found that time to reach TGN s-s was variable, with 58% at s-s by one month and 90% by four months. However, the majority of those with the TPMT *1/*3 genotype did not reach s-s,

with late toxicity occurring. Dr Brooks recommended dose reduction following clinical effect in those with the *1/*3 genotype be considered alongside monitoring cell counts for the duration of therapy. Measurements of TGNs at three months of less than 230pmol/8x10⁸ RBCs were also found to predict treatment failure and therefore may be clinically useful in guiding dose escalation early on in thiopurine treatment.

"The availability of the Shire Innovation Fund will motivate and encourage more SpRs in gastroenterology to present their work at an international level."



Dr Sukhdev Chatu

SpR Gastroenterology at St George's Healthcare NHS Trust, London

DIAGNOSTIC ACCURACY OF SMALL INTESTINE CONTRAST ULTRASONOGRAPHY IN SMALL BOWEL CROHN'S DISEASE: COMPARATIVE STUDY FROM THE UK.

Dr Chatu believes his abstract will raise awareness about the role of Small Intestine Contrast Ultrasonography (SICUS) in the UK and may also initiate a dialogue between IBD healthcare professionals and radiologists to increase use of SICUS more widely in the UK to benefit patients. He states that SICUS should be considered in everyday clinical practice, especially in centres specialising in IBD, as a primary diagnostic in the follow up of patients with Crohn's disease, as it is cheaper, radiation free and patient friendly.

Dr Edward Despott

SpR Gastroenterology at the Wolfson Unit for Endoscopy, St Mark's Hospital and Academic Institute, Northwick Park Campus, Harrow

FIRST PROSPECTIVE, RANDOMISED TRIAL OF DOUBLE BALLOON COLONOSCOPY (DBC) VS CONVENTIONAL COLONOSCOPY (CC).

Dr Despott's team performed a prospective, randomised study comparing DBC and CC for technically difficult (TD) colonoscopy. Patients referred for colonoscopy were screened for parameters predictive of TD colonoscopy using a scoring system. Interim analysis suggested that DBC was a more comfortable, less sedation-dependent and easier alternative to CC for TD colonoscopy cases. Recovery also appeared to be faster with higher patient satisfaction levels.

Dr Jessica Dyson

SpR Gastroenterology at Queen Elizabeth Hospital, Gateshead

USE OF SEHCAT TESTING - INVESTIGATION OF DIARRHOEA AND PATIENT SATISFACTION.

With the introduction of an IBD nurse specialist at Dr Dyson's Trust, admissions there due to acute exacerbations of IBD decreased by 43%. Dr Dyson's survey revealed that the service appeared to reduce admission rates by improving ease of access to medical care, so patients received intervention earlier in their disease flare. The survey also revealed a high degree of patient satisfaction. Work to improve patient awareness and use of the service is on-going.

Dr Ahmed Iftikhar

SpR Gastroenterology at Frenchay Hospital, Bristol

COLONIC MICROBIOME AND VOLATILE ORGANIC COMPOUNDS METABOLOME IN OBESE HUMANS WITH NON-ALCOHOLIC FATTY LIVER DISEASE (NAFLD).

Dr Iftikhar's team characterised the colonic microbiota of obese NAFLD patients and determined whether certain volatile organic compounds (VOCs) could be implicated in NAFLD, which was diagnosed on the basis of clinical, laboratory and sonographic findings. The team used next generation sequencing to determine faecal microbiota. Faecal VOC profiles were measured by gas chromatography mass spectrometry, which showed that significant over-representation of faecal VOCs may be due to functional changes in colonic bacterial metabolism, which are implicated as novel factors in NAFLD pathogenesis.



Dr Nikolaos Kamperidis

Clinical Research Fellow at Barts and The London

FACTORS THAT DETERMINE ADHERENCE TO THIOPURINES IN PATIENTS WITH IBD.

Dr Kamperidis' team hypothesised that non-adherence to thiopurines would be more common in adolescents than in other IBD patient age groups. Using electronic case note reviews, they recorded demographic and disease specific data at the time of 6-thioguanine nucleotide assessment for all IBD patients who had had these levels assayed to check for non-adherence or to optimise their dose. Dr Kamperidis concluded that overall non-adherence to thiopurines in patients with IBD was common, but even more so in adolescents.

Dr Nina Lewis

SpR Gastroenterology at the Royal Derby Hospital

HLA-DQ2 & HLA-DQ8 GENOTYPES DO NOT PREDICT SEVERITY OF COELIAC DISEASE.



Dr Lewis and her team investigated the associations between the clinical and pathological manifestations of coeliac disease and HLA-DQ genotype in a large contemporary cohort. They concluded that lack of HLA-DQ2 gene dosage association on age of onset, severity of clinical, biochemical and histological severity of coeliac disease suggest factors other than HLA-DQ2 and HLA-DQ8 are implicated. Dr Lewis believes that HLA-DQ genotyping should be reserved for assessing risk of coeliac disease in equivocal cases rather than predicting severity and presentation of coeliac disease.

"The Shire Innovation Fund for SpRs travel bursary permitted me attend a major gastroenterology meeting in the EU and has helped maintain the presence of Nottingham coeliac disease research at an international stage."

Dr Rahul Shah

SpR Gastroenterology at St George's Hospital University Trust, London).

1) VALUE OF LOWER GI INVESTIGATIONS IN PATIENTS WITH MELAENA.

2) ARE NURSE LED CLINICS EFFECTIVE IN GASTROENTEROLOGY?

Dr Shah's team outlined the utility of performing a colonoscopy in a subgroup of patients who presented with an upper gastrointestinal bleed and had had a normal gastroscopy. They found that colonoscopy was unhelpful in demonstrating a cause of melaena in patients with a normal gastroscopy and signs of a significant upper GI bleed. However, those labelled with melaena but exhibited no sign of significant GI bleed had a high yield of colonic pathology.

Dr Shah also investigated a telephone clinic led by nurse specialists to improve both patient care and efficiency. Patients included those with follow ups of investigations into anaemia, abnormal LFTs, coeliac disease, IBD, hep B/C and IBS. The study concluded that nurse led telephone clinics improved efficiency and safety of the gastroenterology services, as well as patient satisfaction.

Dr Susan Smith

Foundation Doctor at the Queen Elizabeth Hospital, Gateshead

CONTINUITY OF CARE IN HEP C PATIENTS SERVING A CUSTODIAL SENTENCE IN SCOTLAND.

The aim of Dr Smith's project was to compare current practice with the Hep C Action Plan Phase II and to identify any need for a Standardised Transfer Form (STF) among Scottish prisoners. A clear majority of nurses thought that an STF would be of benefit to patient care. Dr Smith and her team are now in the process of designing a standardised form and also stated that further research would be needed into improving education for this high-risk population.

Dr Cheng Tai Tee

Clinical Research Fellow at St Mark's Hospital and Academic Institute, Northwick Park Campus, Harrow

GLUCAGON-LIKE PEPTIDE-2 (GLP-2) REDUCES ON-GOING CYTOKINE PRODUCTION IN HUMAN DENDRITIC CELLS.



Dr Tee's study investigated the possible anti-inflammatory properties of GLP-2 and the suggestion that the pathway is mediated via intestinal dendritic cells. This will help highlight the possible future use of teduglutide as not only a trophic/reparative therapy, but also as an anti-inflammatory drug to improve the QOL and provide alternative treatments in IBD patients.

Dr Anthi Thangarajah

SpR Paediatric Hepatology at King's College Hospital, London

DE NOVO COLITIS FOLLOWING LIVER TRANSPLANTATION IN CHILDREN.



The purpose of Dr Thangarajah's study was to determine the natural history of paediatric patients with histological evidence of de novo colitis post primary liver transplantation, as there is little reported on this condition in such children. Indeterminate colitis (IC) was found to be common with good outcomes on maintenance aminosalicylates. Dr Thangarajah acknowledges that the study may have under reported the prevalence of de novo colitis in this cohort, but also believes that children with persistent colitic symptoms post liver transplantation should undergo investigation endoscopically.

Dr Mo Thoufeeq

SpR Gastroenterology/Endoscopy Fellow at Leeds Teaching Hospitals, Leeds

ARE COMBINATION BOWEL CLEANSING AGENTS BETTER THAN SINGLE AGENT ONES?

Dr Thoufeeq and his team assessed the practice of bowel cleansing agents over the last four years at Leeds. His team assessed 10,839 colonoscopy procedures about the quality of bowel preparation. Dr Thoufeeq identified areas to improve and also identified the bowel preparation agent that produced the best results. Dr Thoufeeq believes that effective bowel cleansing in colonoscopy would improve diagnostic yield, aid in therapy, avoid delay in diagnosis and missed lesions, while reducing cancelled procedures. The team also found that combination bowel cleansing agents produced a better cleansing effect compared with single agents.

Dr Rakesh Vora

Paediatric Gastroenterology Registrar at the Chelsea & Westminster Hospital, London

THE NATURAL HISTORY OF ACUTE SEVERE COLITIS IN CHILDHOOD UC DESCRIBED USING A PAEDIATRIC DISEASE ACTIVITY INDEX (PUCAI).

Dr Vora and his team used a paediatric UC activity index (PUCAI) to quantify disease activity. Using PUCAI, the team reviewed severity at admission and during the inpatient stay. PUCAI was calculated on the day that I.V. methylprednisolone therapy was initiated. Children with enteric infections were excluded and treatments and clinical outcome were reviewed. Dr Vora reported a relatively benign outcome. The study cohort was close to initial diagnosis and mostly azathioprine-naïve. Two out of 21 children progressed to I.V. cyclosporine, with two colectomies within one year.



"[The award] made me feel appreciated for the work that I was doing, because it was reviewed by an independent panel who decided on the bursary. I will definitely recommend my colleagues apply for this in the future."

Dr Kathy Woolson

SpR Gastroenterology at
Torbay Hospital

THE ENDOSCOPY CHECKLIST: USEFUL AND RELEVANT?

A pre-endoscopy checklist was introduced to the endoscopy department in Torbay Hospital in 2009. Dr Woolson and the team asked the endoscopy staff to fill out a questionnaire seeking feedback about the usefulness of the checklist in 2011. Over 90% of responders found the checklist helpful and relevant to endoscopy and over 30% of responders stated that carrying out

the checklist helped to prevent a potential serious incident. Dr Woolson added that the checklist would need some revising based on other feedback from the endoscopy staff, but using the checklist was a simple measure to improve safety and did not impact on list times, while costing little and producing proven good results.

“The Shire Innovation Fund for SpRs travel bursary allowed me to attend UEGW to present my work and promote the use of the checklist to improve the safety of endoscopy in other units as well as my own.”



The SpR Website

We have made it even easier for you to apply for the Shire Innovation Fund for SpRs in Gastroenterology using www.shireinnovationfunds.co.uk

Launched in July 2011, the website is a virtual one-stop-shop where you can apply online for the Project and Travel Bursary Funds using your PC or tablet.



Online applications process walkthrough.

THE SHIRE INNOVATION FUND FOR SpRS IN GASTROENTEROLOGY IS NOW JUST A CLICK AWAY!

Features:

- Download newsletters and find out about previous SpR Projects and Travel Bursaries Fund awards
- Download Project and Travel Bursary Fund application forms
- Upload and submit Project and Travel Bursary Fund application forms

Don't forget that you can apply for the next round of funding now! We look forward to receiving your applications.