

Registered Charity  
No 274839

# Wessex Medical Research

*Funding research to fight disease*



The newsletter of WESSEX MEDICAL TRUST

Autumn 2020



Professor  
Salim Khakoo



Professor  
Colin Kennedy



Professor  
Sir Stephen Holgate



Professor Diana Eccles



Professor  
Myron Christodoulides

## COVID-19: what it means to us

This has been a curious year, to say the least! Along with many other charities, the Covid-19 pandemic has impacted our finances with a consequent affect on our cashflow and ability to make grants. As a result, apart from two PhD studentships awarded at the very beginning of the year (*see page 4*), we have been unable to make any further grants despite a known demand amongst the early career researchers. Nevertheless, there has been a vast amount of Covid-19 related research at Southampton in recent months and much of it has been highlighted in the local and national press. For details, go to <https://www.southampton.ac.uk/news/coronavirus/stories.page> and <https://www.the-ciru.com/resin-covid19webinar>. Although we as a charity have not been directly involved in this, a number of our former grant recipients have and they pay tribute to the seed-corn funding received from Wessex Medical Research whilst their research careers were at a formative stage: see the reports from Professors Holgate, Khakoo and Christodoulides elsewhere in this Newsletter. The consistent message from these three—and the other now-senior Southampton researchers we feature—is that without that small but vital pump-priming grant from Wessex Medical Research at an early stage in their research career, they would not have been able to progress to the important research positions they hold today.

So, our appeal is that we need your support more than ever at this time so we can encourage and facilitate the careers of current and future early career researchers and enable them in 10, 20 or 30 years' time to produce the response to whatever serious medical conditions are then prevalent. As we have done over the last 40 or more years, we must now continue to invest in the future of medical researchers in the way we know best—by small but well-directed research grants.

How can you help? Well, in the usual way of making a donation or, even better, by setting up a standing order which will give us a known regular income, however modest. The standing order form can be downloaded from our website [www.wesmed.org.uk](http://www.wesmed.org.uk) [go to "Support Us" then "Ways to Help" and scroll down to "Regular Giving"] or if you struggle with the technology, send us a note or email (*addresses on page 4*) and we will forward one to you. If you would prefer to make a single donation, please either send a cheque to our postal address or make a payment direct into our bank account at HSBC: Sort code 40-42-18; Account No 31184148. Finally, we are always grateful to those who choose to remember us in their Will (*see the box on page 3*).

We hope that neither you nor anyone close to you has suffered in the current pandemic but in any event, we trust you will agree that the generosity of those who went before you has enabled a substantial amount of relevant research to be undertaken at Southampton which, whilst it may not yet have stopped the virus, has certainly produced a significant number of treatments to alleviate the worst symptoms. With your help, we look forward to reinstating our regular flow of start-up grants for early career researchers. Thank you.

**STAY SAFE**

**WEAR A FACE MASK**

**SUPPORT MEDICAL RESEARCH**

## Former Grant Recipients

In the absence of information on new Innovation Grants this year, we have asked a number of former grant recipients to tell us how they viewed the importance of a WMR grant in the light of their subsequent careers.



### Professor Salim Khakoo

Salim Khakoo is Professor of Hepatology and Honorary Consultant Hepatologist at Southampton. He has an interest in chronic liver disease and immunology, in particular liver cancer, viral hepatitis and the innate immune system. He was awarded an Innovation Grant of £9,750 by Wessex Medical Research. He writes:

*"This award was made in 2002 when I was an MRC clinician scientist and gastroenterology trainee. The grant was to understand the immunogenetics of hepatitis C and this allowed us to do genotyping for the human leukocyte antigens in our hepatitis C patient study group. This type of study had never previously been performed in hepatitis C, and the combination of my MRC fellowship and the award allowed us to make a new discovery for hepatitis C, and proved the first robust evidence that natural killer cells were important in controlling hepatitis C. Natural killer cells are first responders to viral infections and therefore offer an opportunity for manipulation for therapeutic benefit. There are currently clinical trials of natural killer cells as therapy for Covid-19 being undertaken in the USA. The work supported by Wessex Medical Research was published in the leading scientific journal "Science" with an accompanying editorial and has now been cited over 1,000 times. Overall this grant has helped me to pioneer the genetics of hepatitis C, and was an important step in my building a successful research career."*

*The possibility of obtaining pump-priming or transitional funding from the Wessex Medical Research fund is a vital stepping stone to funding and international funding and I remain very grateful to the Trust for their support."*

### Professor Myron Christodoulides

Myron Christodoulides is currently Professor of Bacteriology in the Faculty of Medicine at Southampton and has an international reputation in pathogen research. His most recent collaborations are with colleagues in the Faculty of Medicine and the Zepler Institute for Photonics and Nanoelectronics, working with success to develop a rapid point of care diagnostic test for the Covid-19 virus.

The support of the Wessex Medical Research for his research has played a significant role in his progression from early career researcher to senior academic. With his colleague Professor John Heckels, Myron was awarded his first Wessex Medical Research seed-funding as an early career researcher in 1999 to study meningococcal meningitis. This led to a stream of funding for the next decade from WMR to the research group which allowed them to study natural immunity to meningococcal infection, to develop in vitro models to study the pathophysiology of meningitis, and to develop experimental serogroup B vaccines. WMR funding provided a platform for Myron to develop his research interests, and a period of consolidation and grant-funding in meningitis and gonorrhoea vaccine research led to his appointment to a professorship in 2016.



### Professor Colin Kennedy



Colin Kennedy is Professor in Neurology and Paediatrics, Consultant and Clinical Lead in Paediatric Neurology at Southampton. He writes:

*"I was the happy recipient of a five figure grant from the Wessex Medical Trust from 2003-2006 to support collection of Quality of Life and related information in the context of a European treatment trial for medulloblastoma, the commonest malignant brain tumour of childhood. This support came at a critical juncture in my research programme as we made the transition from applying our methodology across the UK to applying it across Europe."*

*Thanks to this transitional funding, we were subsequently able to obtain support for this and subsequent similar European treatment trials from national medical charities, including Cancer Research UK, and became partners in the ENCCA (European Network of Cancercare of Children and Adolescents) 'Network of Excellence' that received €15 million from the European Commission. This in turn led to publications in the Journal of Clinical Oncology and other high impact journals. We were then able to modify our methods to be applicable on-line in 14 European languages with a high proportion of families providing information via laptops and tablets. Quality of life information was previously lacking in the outcomes measured in these European trials but is now widely accepted as being of central importance to the assessment of anti-tumour treatments, especially in this group of children and young people."*

## Former Grant Recipients



### Professor Sir Stephen Holgate

Stephen Holgate is Medical Research Council Clinical Professor of Immunopharmacology and Honorary Consultant Physician within Medicine at the University of Southampton.

We congratulate him on receiving a knighthood in the recent Queen's Birthday Honours.

*"Synairgen, a spinout company from the University of Southampton, announced in July 2020 that its inhaled beta interferon greatly reduced the risk of severe lung disease in Covid-19 patients who were admitted to hospital. Stephen Holgate, co-founder of Synairgen and professor of immunopharmacology at Southampton, says the interferon seemed to act in time to prevent patients' immune systems going into harmful overdrive. The company is undertaking a second clinical trial to find out whether earlier inhalation of interferon would prevent hospitalisation."*

[Extract from an article in the Financial Times 8 September 2020]

Professor Holgate has received a number of grants from Wessex Medical Research over many years. In 1999, we facilitated a major donation from the late Roger Brooke which enabled the conversion of an old laboratory into a modern research facility that permitted the concentration of respiratory-related research. This led to the creation of Synairgen, in collaboration with Professors Donna Davies and Ratko Djukanovic, also at Southampton. In 2000, a further modest grant of £5,040 enabled the team to move their research into the genetics of asthma and allergy and establish a strong link with the late Newton Morton, a world renowned genetic epidemiologist.

#### Legacies

Whilst we are always very grateful to receive any donation, however small, our main source of income continues to be from legacies. We have produced a small information leaflet which is available on our website [www.wesmed.org.uk](http://www.wesmed.org.uk) [click on "Support Us" then "Ways to Donate" and scroll down to "Leaving a Legacy/Making a Will"]. You are strongly advised to employ a professional to draw up or amend your Will: they will also be able to advise you on the Inheritance Tax savings which may be available should you make a bequest to charity.

#### Christmas is coming!

Despite some predictions to the contrary, we believe Christmas will still happen this year.

Unfortunately, we are no longer able to offer our traditional Christmas Cards for sale and we are aware that many people regret not being able to add a small cash donation to their order. However we have now produced a 2021 flip-over desk calendar which features each month an aspect of our activities. If you would like one, please write to or email us and either send a cheque or make a bank transfer (*the same process as set out on page 1*). To cover the cost of production and post, we ask for a minimum donation of £10 each. Orders received after 4 December may not be processed in time for Christmas.

### Professor Diana Eccles

Diana Eccles is Dean of Medicine and is also Professor of Cancer Genetics and Honorary Consultant in Clinical Genetics at the University of Southampton. She writes about two early grants received from Wessex Medical Research:

*"A grant in 1998 funded a research project on Guernsey that identified Channel Island families with a very high genetic risk for breast and ovarian cancer which we can now help by regular screening and risk-reducing measures plus new targeted therapies as part of the regional genetics service provision to Channel Island patients."*

*My research focus has continued to be in genetic predisposition to breast cancer. A large UK study of young patients with breast cancer has provided evidence for genetic testing in younger patients with cancer and underpinned work around developing and presenting information that can really help people weigh up their choices regarding breast cancer genetic testing."*

*The second grant contributed to a larger project to help pathologists flag cases of colon cancer that could be due to a high risk genetic susceptibility. Again, identifying these cases allows us to offer regular screening from young ages. A subsequent clinical trial for gene carriers has allowed us to show that aspirin is effective in halving the risk of colon cancer in people with this genetic predisposition. The most common age for cancer to develop in this group is between the ages 40-50 but it can occur in those as young as 10-20: Knowing about it ahead really helps early diagnosis with a higher chance of cure."*





For some time now, we have been promoting the idea of recycling used mobile phones and printer cartridges for the benefit of WMR. This is an ongoing appeal so please dig around and see what you can find.

You can send them direct to recycle4charity (go to their website at [www.recycle4charity.co.uk](http://www.recycle4charity.co.uk) for freepost instructions) but remember to tell them it's for the benefit of Wessex Medical Research and give our reference number (C16805).



*We are proud to be a member of the Association of Medical Research Charities and our last regular Peer Review Audit took place in 2015.*



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**[www.wesmed.org.uk](http://www.wesmed.org.uk)**

## PhD Studentships

**W**e are pleased to report that in the Spring of 2020 we were able to award two PhD studentships. In accordance with current best practice, each award was for up to £100,000 and spread over three or four years, depending on the experience of the student at inception. The supervisors have now recruited their students and these each began their studies in October 2020. The supervisors and their selected projects (which have each been formally peer reviewed in accordance with the requirements of the AMRC) are as follows:



**“Understanding the relationship between the breadth of the anti-cancer CD8 T cell response and successful immunotherapy”**

*Recent studies have established that T cells, a type of white blood cell, are capable of finding and rejecting cancer tumours but this capability seems to reduce as the tumour grows. The project aims to combat this by broadening the application of recently developed drugs which can invigorate the T cells.*

**Principal supervisor: Dr Edd James**

*Associate Professor in  
Cancer Immunology  
Faculty of Medicine*

Jointly funded with the Centre for Cancer Immunology and Hope for Guernsey

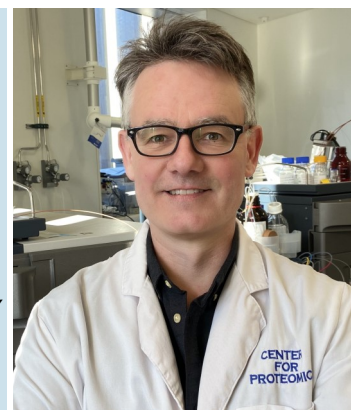
**“Understanding the molecular mechanisms of Zika virus-driven oncolysis of brain tumour stem cells”**

*Brain tumours are the most common cause of cancer-related death in young people. The Zika virus has been shown to successfully target several types of brain tumour and the project aims to understand how this happens*

**Principal supervisor: Dr Rob Ewing**

*Associate Professor,  
Proteomics and Systems Biology  
Faculty of Environmental  
and Life Sciences*

Jointly funded with Rosetrees Trust



## Derek Coates

We were notified in August that, sadly, Derek Coates had died. Derek was the founder and owner of Healthspan, based on Guernsey. In 2012 he gave £250,000 towards the purchase of a mass spectrometer; this sum was augmented by significant fundraising on Guernsey, spearheaded by Roger Allsopp, with the overall result that a total of £470,000 was awarded for the purchase. Roger wrote a tribute to Derek for the Guernsey Press on behalf of both Hope for Guernsey and Wessex Medical Trust.

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