The Turner-Warwick lecturer scheme
2021 yearbook

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Dr Greta Wood
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Foreword

It gives me enormous pleasure to introduce the yearbook for our 2021 cohort of Turner-Warwick lecturers. This flagship scheme celebrates the life and achievements of Professor Dame Margaret Turner-Warwick, the first female president of the Royal College of Physicians (RCP).

Dame Margaret was a leading thoracic physician who played a major role in transforming respiratory medicine. She was also a mentor and support to many trainees throughout her career and in her role as president of the RCP. This scheme, in Dame Margaret’s name, continues that tradition of nurturing the upcoming talent in our profession.

I couldn’t be more thrilled that we’re able to shine a spotlight on each of our 2021 winning lecturers, who’ve worked incredibly hard and through the difficult circumstances of the COVID-19 pandemic.

This year, we decided to underline the value trainees bring to healthcare in a different way – by featuring each winner in our digital Med+ conference in October 2021. We were also delighted to be able to involve the consultants supporting this year’s winning lecturers in a live Q&A after each presentation at Med+. If you weren’t able to tune in on the day, the lectures are available on demand on the ‘Learning’ tab of RCP Player.

The 2021 Turner-Warwick lecturer scheme has showcased outstanding trainees who truly encompass the values of the RCP and the ambition to provide the best possible health and healthcare for all. We wish them every success and hope they stay involved with the RCP, continuing to share their learning with us.

Andrew Goddard FRCP
President, Royal College of Physicians

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This lecture presented the evolving landscape of the management of metabolic disorders associated with obesity and type 2 diabetes (T2D) using a novel promising drug (cotadutide) with a similar mechanism of action to naturally occurring hormones glucagon-like peptide 1 and glucagon. Cotadutide is in development for non-alcoholic fatty liver disease and kidney disease, which are metabolic complications of obesity and T2D. There is a major unmet need for therapies that improve metabolic health and achieve disease-modifying weight loss, thus increasing the chance of additional improvements in glucose, cardiovascular risk and mortality and slowing or reversing the disease progression.

In collaboration with AstraZeneca, we conducted a randomised controlled study on 19 obese volunteers with T2D over 10 visits to determine the mechanism by which cotadutide causes weight loss. We performed comprehensive assessments of energy balance (intake and expenditure) using state-of-the-art methods in our NIHR Cambridge Clinical Research Facility (room calorimetry, energy intake monitors). After 42 days of treatment, an average weight loss was 4.0% in cotadutide group and 1.4% in placebo group (p=0.011, primary outcome). Strikingly, energy intake was 41% lower compared to placebo (p=0.037) while energy expenditure was initially unchanged, but after 6 weeks decreased in cotadutide group (p<0.001). There was a marked improvement in glucose control and lipid profile in cotadutide group. No safety concerns were raised.

This mechanistic study has determined that cotadutide promotes weight loss predominantly through reduction in appetite and energy intake with preservation of energy expenditure in the early phases of treatment.
Mohammad Farhad Peerally

Organisation: Kettering General Hospital/University of Leicester
Grade: ST6
Specialty: Gastroenterology and general internal medicine
Region: East Midlands

My research into how healthcare responds following serious patient safety incidents has practical relevance to everyone in healthcare. The Turner-Warwick lecturer scheme was thus a unique opportunity to deliver a lecturer to a wide medical audience including physicians from multiple organisations, and in so doing share the findings of 4 years’ worth of research investigating multiple safety critical industries to identify lessons relevant to healthcare.’

Lecture title: Improving risk controls following root cause analysis (RCA) of serious incidents (SI) in healthcare: a mixed methods study

RCA is widely used following SIs, but does not necessarily lead to robust risk controls. This research aimed to examine current practices and build an understanding of what ‘good’ looks like when formulating and implementing risk controls to improve patient safety.

I undertook a content analysis of 126 RCA reports over a 3-year period from an acute trust, in order to characterise contributory factors and risk controls. I then conducted a narrative review of the literature on improving risk control practices in safety-critical industries, including healthcare. Finally, I undertook a semi-structured interview study of 52 experts in post-incident management.

Content analysis of SI investigation reports identified the preoccupation of RCAs with proximate errors at the sharp end, neglecting wider contexts. Most (74%) risk controls were weak and poorly aligned with contributory factors.

The narrative review and the interview study suggested 11 features essential to addressing these problems: systems-based investigations; a participatory approach; skilled, independent investigators; clear and shared language; including patients’ views; allocating time and space to risk control formulation; adding structure to risk control formulation; sustainable risk controls mapped to identified problems; purposeful implementation with better tracking of risk controls; a collaborative approach to quality assurance and improved organisational learning.

RCAs as currently conducted, and their action plans, are often flawed. To operationalise the 11 features identified, there is a need for professional, independent investigations, risk controls based on a sound theory of change and improved cultures and structures for organisational learning.

The RCP Turner-Warwick lecturer scheme is a fabulous platform that has allowed wider dissemination of my work to a knowledgeable audience, many of whom will draw relevant practical lessons from the body of research I have conducted and presented.’
Sonia Raffe

Organisation: Royal Sussex County Hospital
Grade: ST6
Specialty: HIV and sexual health
Region: Kent, Surrey and Sussex

I applied to the Turner-Warwick lecturer scheme as I am really proud of the work we have done and wanted to share our process with a wider audience. I also look forward to hearing about the work that others have done and learning from their experiences.’

Lecture title: A relational approach to the implementation and integration of new technology within traditional sexual health services

The successful implementation of a new intervention requires careful evaluation and assessment of the local context. Since 2017, HIV self-test kits have been available from digital vending machines (VMs) in Brighton. This project aimed to evaluate and develop the role of the VMs and to ensure robust links with traditional local services.

Phase 1: Deming’s System of Profound Knowledge was used to determine the project scope.

Phase 2: A relational approach was adopted to conduct a system-wide consultation exercise (semi-structured interviews, workshops and informal networking).

Phase 3: A framework analysis was used to identify important and recurring themes. These were then used to design the next generation of VM.

Twenty-three service-users and 13 stakeholders (public health, local authority, voluntary sector) were interviewed. Fourteen healthcare professionals attended a workshop. Key emerging themes included: the benefits of accessibility, anonymity and choice but potential for a detrimental impact on STI testing, care-linkage and stigma. Future priorities identified: integration, consistency, improving the use of social media, understanding of local intersectionality and promotion of self-care. The VMs were then redeveloped to dispense STI self-sampling kits in addition to HIV self-tests. The interface was upgraded, branding unified and a pathway linking with traditional services established.

By adopting a relational approach, this project has successfully produced a new pathway of care, optimising digital technology. By co-producing the change, the outcome is not only focused on local need, but has helped develop a dynamic network of stakeholders working in sexual health in Brighton.

Being a Turner-Warwick lecturer has definitely given me confidence in the quality of the work we have done and has empowered me to plan my next project!'
Suzanne Pomfret

Organisation: Northwick Park Hospital/Imperial College
Grade: ST7
Specialty: Gastroenterology and general internal medicine
Region: London

I thought that the Turner-Warwick lectures would be a good platform to highlight an important area of clinical care that is an area of scant research yet a major factor in every medical inpatients experience, as well as crucial for patient safety. In the same vein, I thought it would be a good arena to share my research with like-minded individuals in the hope to form an interested collaborative group going forward.’

Lecture title: Leadership and training on medical post-take ward rounds

I researched and developed a simulation for senior registrars to lead a medical post-take ward round (PTWR) and a formative assessment tool to evaluate the ward round leader’s medical non-technical skills called M-NOTECHS.

Medical ward rounds are an under researched area. The medical PTWR is cited as being a source of anxiety for new consultants. The non-technical skills involved correlate well with those skills that new consultants feel underprepared for. Historically, ward rounds have been the main vehicle for training juniors, but there have been many changes in how junior doctors work that have potentially impacted their training and preparation for consultant posts. Improved training and assessment of the ward round process should enhance patient safety and effectiveness of care on medical wards.

The research for this project included a systematic review of both training and ward rounds and also non-technical skills tools used in hospital medicine, how they were developed and their psychometric evaluation. These reviews plus the results from an interview study of medical registrars, consultants and patients informed the development of M-NOTECHS. The PTWR simulation was developed alongside M-NOTECHS and served two purposes – firstly, to develop a training programme by which to train senior medical registrars to lead PTWRs and secondly, to psychometrically evaluation M-NOTECHS. The iterative inductive development of the simulation and tool are described and evaluated in detail. M-NOTECHS is a reliable and valid tool with clear use within a simulated environment and can be used to assess a lead of a PTWR.

I was amazed to have got this far and am very grateful for the experience and opportunity to showcase my research. I look forward to the possible benefits after the conference as regards further research on ward rounds going forward. The selection process has made me more confident in the relevance and interest of my research to other physicians.’
Freddy Frost

Organisation: Mersey Deanery
Grade: ST4
Specialty: Respiratory medicine
Region: Mersey

I applied to the programme to help showcase some of our local cystic fibrosis research to the wider clinical community across different specialties and regions.’

Lecture title: Inhaled antibiotics for the treatment of acute pulmonary exacerbations of cystic fibrosis

This lecture aimed to provide an understanding of the current available treatments for exacerbations of cystic fibrosis (CF), with focus on the newly available inhaled antibiotics, while providing background information on the lung microbiome. The lecture used the results of the AZTEC-CF study, conducted as part of my MD, to explain the potential positive effects of inhaled antibiotics for clinical outcomes, and also upon the lung microbiome. The lecture finished with discussion of potential applications for new inhaled antibiotics in common acute and chronic lung infection.

The AZTEC-CF study was a randomised cross-over study performed at a large adult CF centre. Sixteen participants (32 exacerbations) were randomised to receive either standard care (dual intravenous antibiotics, IV+IV) or one intravenous antibiotic plus inhaled aztreonam (AZLI+IV). Primary outcome was absolute change in lung function. Secondary outcomes were changes in quality of life, bacterial load and the lung microbiota.

The difference between mean change in lung function at day 14 between AZLI+IV and IV+IV was +4.6% FEV1 (2.1–7.2, p=0.002). The minimum clinically important difference of the CFQ-R QoL questionnaire was achieved more for AZLI+IV (83.3%) than IV+IV (43.8%). No differences were observed for modulation of serum white cell count, C-reactive protein or sputum bacterial load. Microbiome compositional changes were observed with IV+IV but not AZLI+IV.

In conclusion, AZLI+IV improved lung function and quality of life compared to standard treatment. These findings confirm inhaled antibiotics have a role in acute lung infection and further work is underway to understand the applicability of these therapies to wider respiratory infectious diseases.

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Presenting this body of work to a wider clinical audience while providing an update on the recent changes in CF has been challenging and rewarding in equal measure. It’s been an honour to have this work recognised by the RCP Turner-Warwick programme.’
Helen Grover

Organisation: South Tyneside and Sunderland NHS Foundation Trust
Grade: ST6
Specialty: Respiratory medicine
Region: Northern

I was encouraged to apply by a previous applicant and, as a female respiratory physician, attracted to a scheme named in honour of Dame Margaret Turner-Warwick! It is a great opportunity provided by the RCP for trainees.

Lecture title: Lung cancer screening: the South Tyneside and Sunderland model – its impact and relevance for participants and physicians

This lecture addressed lung cancer (LC) screening and its impact, including additional findings, for participants and clinicians. LC remains the most common cause of cancer death in the UK. Screening for LC with low-dose computed tomography (LDCT) is becoming widely accepted to alter the tide of late-presenting disease, with two large randomised controlled trials showing a LC-specific mortality reduction.

South Tyneside and Sunderland LC Screening (STS-LCS) model is an NHS-commissioned service that invites patients with COPD or emphysema, aged 55–74 with a 10+ pack-year smoking history for annual screening. LC prevalence is 2% (n=19/925); 66.7% (n=14/21) have early-stage disease (previously 31%) and 78.9% (n=15/19) were offered curative intent treatment. 79.3% were ranked in the lowest deprivation quintiles. This stage shift is providing real improvements for patients diagnosed with LC, importantly for people in lower socioeconomic groups.

Our systematic review of economic evaluations of LC screening shows that over 20 years most cost-effectiveness analyses agree that LC screening is cost-effective, when appropriate risk-stratification of participants and key aspects such as screening frequency are considered.

The STS-LCS found n=199/718 (27.7%) clinically relevant additional findings. They generated 39 outpatient appointments across specialties per year. CT was the most frequent investigation (n=76/718, 10.6%). Four other cancers were diagnosed. Budget impact for these additional findings was £11,533 for diagnostic tests and £9,578 for treatment per year. This must be considered within trusts and departments when planning LC screening. The benefits of these findings may be significant for patients and studies are required to determine this.

The Turner-Warwick lecturer scheme provides a different and wider audience to share the research or quality improvement we are doing as trainees, and dissemination of work is an important aspect of this. It was an honour to be a part of the scheme and I feel emboldened in discussing and sharing my work with others.
Robert D’Arcy

Organisation: Royal Victoria Hospital, Belfast
Grade: ST6
Specialty: Endocrinology
Nation: Northern Ireland

Lecture title: Visceral fat: identifying a hidden threat to break the cycle of obesity

The increasing prevalence of obesity and its cardiometabolic sequelae present an increasing challenge to population health.

Diabetes that develops in pregnancy, gestational diabetes mellitus (GDM), confers an increased risk of obesity and diabetes in the offspring, which persists into adulthood. Identifying and treating women at risk of GDM presents an opportunity to break this cycle of trans-generational obesity risk. Obesity alone, as defined by BMI, is a weak predictor both of cardiometabolic disease and of GDM. Visceral fat, however, shows a much stronger association with these diseases, but is typically difficult to measure.

We assessed the role of visceral fat measurement, using a simple, novel ultrasound technique, to identify women at risk of GDM.

In an observational study, we measured visceral adipose depth (VAD) by ultrasound in early pregnancy in 123 women at risk of GDM.

Of these, 26 (21.1%) developed GDM. Women with GDM had a significantly higher VAD compared with those without GDM (4.22 ±0.97cm vs 3.12 ±1.33cm p<0.01). Using receiver operator characteristic (ROC) curve analysis, a VAD of 3.98cm achieved a sensitivity of 73.1% and specificity of 72.2% for the later diagnosis of GDM in this cohort. Women exceeding this threshold were at seven-fold greater odds of later GDM diagnosis and VAD had twice the predictive value for GDM compared with obesity alone.

This lecture explored the role of visceral fat in cardiovascular and metabolic disease, before examining different methods of quantifying visceral fat in adults and strategies to address its excess.
A平台 for outstanding trainees

An inspirational RCP president
Dame Margaret Turner-Warwick was an internationally regarded respiratory physician who played a fundamental role in the development of modern respiratory medicine. In her medical and research career, she published over 200 papers and several books, and received a number of honours. In 1989, she was elected as the first female president of the RCP, 471 years after it was founded.

A commitment to trainees
Although the care of patients was her primary consideration, Dame Margaret was committed to supporting trainees throughout her career and presidency. She was an excellent mentor and she helped launch the careers of many of the next generation of respiratory researchers. It’s because of this dedication that in 2019 the RCP Turner-Warwick lecturer scheme for trainees was created in her name.

Like Dame Margaret, the lecturer scheme gives encouragement to trainees across the UK and underlines the value trainees bring to healthcare, all while fostering skills like public speaking and information packaging for diverse medical audiences.
The 2021 trainee lecturers at Med+

Dame Margaret’s presidency of the RCP did not fall at an easy time for physicians. She led the RCP during a time of major NHS reforms and a looming workforce crisis, strikingly similar to what today’s doctors are experiencing.

In 2021, our second year of the COVID-19 pandemic, the Turner-Warwick lectures went virtual once again.

Each of the winning trainees was given time and space to present their lecture as part of the RCP Med+ programme – the largest RCP conference to date that has featured the trainee lecturers. As part of the 3-day conference, the Turner-Warwick lecturers joined 60 speakers from our regional and international networks to participate in the Med+ programme.

This year we were delighted to also include the consultants who supported each winning trainee — each Turner-Warwick lecture was followed with a Q&A session led by the supporting consultant.

The 2021 Turner-Warwick lectures are available to view on demand on the ‘Learning’ tab of RCP Player.

This year’s lecturers are all responsible for outstanding work that truly encompasses the values of the RCP and our mission to provide the best possible health and healthcare for all.

We couldn’t be more thrilled to shine a spotlight on each of these trainees who’ve worked incredibly hard and through the difficult circumstances of the COVID-19 pandemic. Our congratulations to each and every one of them!
Patrick Bradley

Organisation: Manchester University NHS Foundation Trust
Grade: ST5
Specialty: Respiratory medicine
Nation: North Western

I first heard the call for Turner-Warwick submissions from several encouraging consultants coincidentally, and this was well-timed as I was working through the data from this project. It’s a brilliant platform for trainees like me to share our findings with a broad general medical audience.’

Lecture title: Does CPAP help ward-based COVID-19 patients?
Trainee collaborative research in practice

This lecture explored whether continuous positive airway pressure (CPAP) treatment benefits patients with COVID-19 managed with a ward-level treatment escalation plan. Importantly, this question was addressed through a regional multicentre trainee-led collaboration.

COVID-19 inflicted a 33% in-hospital mortality rate on patients in the UK. The majority of the sickest patients would not have benefitted from invasive mechanical ventilation or CPR, so were managed at ward level. Although CPAP had not been widely used for viral pneumonia prior to COVID-19, it gained popularity during the first wave of the pandemic. Given a paucity of evidence regarding its efficacy, some hospitals in our region offered CPAP as a ceiling of care, while others did not.

Prior to the arrival of COVID-19, respiratory trainees in the region had established the North West Collaborative Organisation for Respiratory Research (NWCORR). Having initially published an investigation of prognostication scores, we then turned our attention to the question of CPAP. Twenty-two trainee physicians, supported by consultant colleagues across seven hospitals, performed a cohort evaluation comparing mortality between CPAP and non-CPAP sites.

Among 479 patients included, we found a 30-day mortality rate of 77.7% in the CPAP group (181/233) and 75.6% in the oxygen group (186/246). A lack of evidence for a treatment effect persisted in an adjusted logistic regression model (adjusted odds ratio 0.84, 95% CI 0.57–1.23, p=0.37).

These findings invite reflection on the role of CPAP in the management of COVID-19, and highlight the potential of trainee research collaboratives to address important clinical questions.

Giving this lecture has been a real privilege, not just for me but for all the collaborators who brought such a big project into reality. I hope listeners gain something from our findings, but having the opportunity to deliver the lecture has also served to validate and encourage us trainee researchers as we tackle further clinical questions in future.’
Delirium is characterised by disturbed cognition, awareness and attention, and is prevalent in hospitalised patients, although data from unselected cohorts are scarce. Delirium is associated with poor outcomes, but it remains uncertain whether it is an independent predictor over and above comorbidity burden, frailty and illness severity.

My lecture will begin by exploring the pathophysiology of delirium and non-pharmacological and pharmacological prevention and treatment. I will then describe the prevalence, incidence and factors associated with delirium in a well-characterised longitudinal (2010–2020) prospective, observational cohort of unselected consecutive admissions to acute medicine.

Among 1,737 patients (age median=75, range 16–101 years, 847 (48.8%) male), delirium occurred in 415 (23.9%, 280 prevalent, 72 incident, and 63 both) with 380/415 (91.5%) cases occurring in patients aged >65. After adjustment for age and sex, delirium was associated with dementia (OR=3.40, 95% CI 2.47–4.67, p<0.001), pre-admission dependency (2.70, 2.06–3.52, p<0.001) and markers of physical frailty (all p<0.001) including falls (2.36, 1.82–3.07), visual/hearing impairment (2.12, 1.54–2.92), urinary incontinence (4.02, 3.05–5.29), and pressure sore risk (3.55, 2.65–4.77) together with illness severity (1.49, 1.14–1.94) and comorbidity burden (1.03, 1.02–1.04). After adjustment for all covariates, delirium remained associated with inpatient stay >7 days (2.49, 1.77–3.51, p<0.001), increased care needs at discharge (2.89, 1.95–4.28, p<0.001) and death <30 days (1.79, 1.19–2.70, p=0.005).

In conclusion, prevalent delirium is over three times more common than incident delirium, emphasising the importance of developing effective delirium treatments. Identification of delirium should prompt early discharge planning for timely discharge and consideration of advanced care planning.

Lecture title: Poor outcomes in delirium: findings from an observational cohort of over 1,700 unselected acute medicine patients

I applied for the scheme as it is a great platform to share my research findings, and I hope this would highlight the importance of ongoing research to advance our understanding of delirium and how to best manage this condition. I also saw this scheme as a unique opportunity to develop my skills and confidence in delivering a lecture to a wide audience.
The Turner-Warwick lecturer scheme is a fantastic opportunity to share research output with a wider clinical audience at the RCP. Having now completed my PhD and approaching the end of training, it seemed the right time to apply.’

Lecture title: Introducing the concept of a post-hypertension syndrome in older adults

The lecture explored the concept of a post-hypertension syndrome in older people.

Older adults are a heterogeneous group, and while trials of relatively healthier populations report benefits of tight blood pressure (BP) control to <120mmHg, there are some groups in whom this may be associated with excess risks. The lecture discusses the concept of post-hypertension syndrome in older adults with hypertension diagnoses but measured BPs <140mmHg and a declining longitudinal trend.

We studied 415,980 representative older adults aged over 75, and found that systolic BP <140mmHg was associated with excess mortality (eg <120mmHg versus 130–139mmHg HR 1.50 (95% CI 1.42 to 1.58) non-frail aged 75–84 years and HR 1.62 (95% CI 1.46 to 1.79) with severe frailty). We modelled serial BPs over 20 years prior to death of 46,634 older adults and found that systolic BP declines for 15 years prior to death in older people, with steeper declines in specific groups, such as with frailty or dementia. We have subsequently found in two cohorts (n=85,958 UK Biobank; n=1067 InCHIANTI study) that accelerated BP declines below 140mmHg were associated with excess mortality.

When participants with the steepest declines were excluded, systolic BP <140mmHg was associated with reduced mortality compared to ≥140mmHg – in keeping with trial evidence.

I proposed a post-hypertension syndrome, when older people who no longer have hypertensive BP may have adverse outcomes associated with continuing to drive BP declines. Further research is needed to better understand this, but it could have important implications on understanding BP prognosis in older adults and targeting safe deprescribing to reduce adverse outcomes.

‘Being a Turner-Warwick lecturer provides additional networking opportunities, which will be useful for my future academic career in cardiovascular ageing. Being recognised and given the platform to present my research is really valuable as I approach CCT.’

Jane Masoli
Organisation: Royal Devon and Exeter NHS Foundation Trust and University of Exeter Medical School
Grade: ST6
Specialty: Geriatric medicine
Region: South West
Scott O’Rourke

Organisation: Prince Phillip Hospital, Llanelli
Grade: ST6
Specialty: Respiratory medicine
Nation: Wales

The Turner-Warwick lectureship is a prestigious commemorative award and gave an excellent opportunity to present my work to a general medical audience who will often see patients with OSAHS.’

Lecture title: The potential of metabolomics in diagnosing and monitoring obstructive sleep apnoea hypopnoea syndrome (OSAHS)

My work hopes to realise the potential of metabolomics to identify serum and urine biomarkers in obstructive sleep apnoea hypopnoea syndrome (OSAHS). OSAHS is a heterogeneous condition affecting 4–6% of the general population, with many sufferers remaining undiagnosed. As well as causing excessive sleepiness, it is an inflammatory metabolic state associated with increased cardiovascular risk, and current diagnostic modalities are sub-optimal. Identifying a non-invasive blood test could guide screening /diagnostic pathways and treatments.

Metabolomics is a high sensitivity, high throughput profiling method to study the characteristic changes in metabolites in a pathophysiological state. Few have applied metabolomics to OSAHS, with results being inconsistent and remaining far from clinical application.

We applied untargeted metabolomic profiling on the plasma obtained from consecutive attenders referred for conventional Level 3 home-sleep studies with excessive daytime somnolence, comparing 17 OSAHS patients (AHI≥15, Epworth Score 13.5±4.5) with 16 age, gender, and BMI matched sleepy subjects (sleepy snorers (SS)) with negative home polysomnography tests (AHI<15, Epworth Score 12.1±7.0. OSAHS patients had a repeat blood test 6 weeks after receiving continuous positive airway pressure (CPAP). Plasma was assessed by direct infusion electrospray mass spectrometry (Q Exactive Hybrid Quadrupole-Orbitrap platform).

We identified six metabolites that distinguished OSAHS from SS with an AUC value of 0.982 (95% CI: 0.9–1.0). Furthermore, those found to have OSAHS were commenced on CPAP and repeat sampling at 6 weeks showed that all six metabolites changed towards the levels seen in the sleep snorers (p<0.01). The individual metabolites identified were gangliosides and lipids that are involved in oxidative stress, inflammation, and dysregulation of energy homeostasis.

We feel we have reported biologically plausible biomarkers that can distinguish between OSAHS and sleepy patients with high accuracy, with the levels of these metabolites improving with short-term treatment with CPAP.

The Turner-Warwick lectures provided a unique and invaluable experience by allowing me to present my work to a wider audience and how to communicate the important messages relevant to clinical practice.’
The pandemic has highlighted the importance of doctors’ wellbeing. This is defined and measured heterogeneously, making it difficult to find and synthesise evidence for leads to an improvement in wellbeing. Core Outcome Sets are consensus minimum groups of outcomes with recommended reliable and valid measurement tools. They are being used increasingly in healthcare. This lecture discusses why and how a Core Outcome Set can also be used for doctors’ wellbeing.

Concept analysis was undertaken to create an operational definition of wellbeing. A systematic review was conducted to identify outcomes that should be considered. The appropriateness of a Core Outcome Set was evidenced through regional and national cross-sectional surveys and interviews. A Delphi study of doctors, and national stakeholders was undertaken to agree a Core Outcome Set, following Core Outcome Measurement in Effectiveness Trials (COMET) guidelines.

Systematic review identified 114 studies where wellbeing was an explicit results section outcome. The Maslach Burnout Inventory (n=18) was the most common of the 140 different measurement tools used. Cross-sectional surveys (n=405) and interviews (n=11) confirmed that doctors felt a salutogenic Core Outcome Set was appropriate. The Delphi study agreed a minimum set of seven outcomes and short, free tools.

Use of a Core Outcome Set for wellbeing by researchers, and in governance nationally and locally, will ensure that when doctors take time to complete wellbeing surveys. They are evidence-based, and make the data collected comparable. This will provide evidence for the system level changes that really improve doctor wellbeing.

Lecture title: A core outcome set for doctor wellbeing

Winning this scheme helps to secure funding to continue this important research, as it gives funders and stakeholders the confidence that I have the qualities they are looking for. With further funding I can evaluate the available measurement tools for the outcomes for validity, reliability, sensitivity to change and, most importantly, brevity.’
Ayman Sharafeldin Bannaga

Organisation: University Hospital Coventry and Warwickshire, Warwick Medical School
Grade: ST6
Specialty: Gastroenterology
Region: West Midlands

My medical school has maintained links with the RCP, and during my undergraduate years I was educated through several RCP visiting lecturers, assessors and examiners. They always shared the new data in their teachings and this experience inspired me in the search for new knowledge and evidence.

Lecture title: Non-invasive urinary detection of hepatocellular carcinoma – multicentre study

This lecture explored proteomic analysis in hepatocellular carcinoma (HCC) diagnostic medicine. HCC is the second most common cause of cancer-related death worldwide. HCC is associated with protein changes, liver inflammation and fibrotic deposition. To advance our understanding of HCC molecular pathology, the urinary low molecular weight proteome was investigated. 195 patients were recruited at University Hospital Coventry and Hanover Medical School in Germany. Of these, 57 were patients suffering from HCC on background of liver cirrhosis (LC) and 138 were non-HCC controls, including 69 patients with LC, 54 with non-cirrhotic liver disease and 15 with normal liver function. Analysis of the urine samples was performed by applying capillary electrophoresis coupled to mass spectrometry (CE-MS). Peptide sequences were obtained and 31 specific peptides for HCC were identified and further integrated into a multivariate classification model. Proteases potentially involved in HCC progression were mapped to the N- and C-terminal sequence motifs of the CE-MS peptide markers for HCC. In-silico protease prediction revealed that kallikrein-6 (KLK6) elicits increased activity, while Meprin A subunit a (MEP1A) has reduced activity in HCC compared with the controls. Gradient staining of KLK6 and MEP1A was subsequently verified by immunohistochemistry in HCC, LC and normal liver tissue sections. In addition, the specific age-adjusted HCC peptides model showed good diagnostic performance in HCC cases with 79.5% sensitivity and 85.1% specificity (95% CI: 0.81–0.93, p<0.0001) and prognostic ability in relation to death from the disease (HR: 5.29 95% CI: 2.18–12.81, P=0.0008).

I applied to the Turner-Warwick lecturer scheme because I wanted to share my research findings on a platform that has solid medical heritage, is forward-looking and international. This scheme also holds the name of the first woman president of the college, a testament to the inclusive philosophy of the RCP.
Jennifer Tegan
Middleton

Organisation: Sheffield Teaching Hospitals NHS Foundation Trust and University of Sheffield
Grade: ST6
Specialty: Cardiology
Region: Yorkshire

A consultant colleague thought this lecture would be a good fit for my research project and a unique platform for me to present work to my peers. He remembers shaking hands with Margaret Turner-Warwick when she had presented him with his MRCP diploma in March 1990 and he was keen for me to apply for this opportunity.

Lecture title: Development of a remote monitoring clinical service for patients with pulmonary hypertension

Pulmonary hypertension (PH) is a devastating disease leading to right heart failure, and affects approximately 40 patients/million with an untreated median survival of < 3 years. Therapy is expensive and, in the UK, diagnosis and treatment for PH is commissioned through seven national centres. To increase patient contact between visits, identify disease worsening earlier and optimise therapy, we established the world’s first clinical service for remote monitoring and management of patients with PH and heart failure in Sheffield.

Suitable patients were implanted with an insertable cardiac monitor (LinQ-Medtronic) and/or a pulmonary artery pressure (PAP) monitor (CardioMEMS-Abbott) allowing direct, frequent measurements of PAP in combination with an implantable heart rate and activity monitor. A remote-monitoring MDT was established to regularly review this data, facilitating remote patient care.

To date, 68 patients have had a device implanted. Early data comparing the 12 months pre-device implant to 12 months post-implant showed an increase in the number of therapeutic changes (10 to 68), a reduction in disease-related hospitalisation events (21 to four) and an improvement in walk distance and WHO functional class.

Early data suggests that more intensive remote monitoring has facilitated early intervention and intensification of treatment, preventing hospitalisation. During the COVID-19 pandemic, remote monitoring of high-risk patients with PH increased therapeutic changes, improved PAP, facilitated therapeutic optimisation and allowed early detection of disease worsening from the patient’s home in a manner not previously possible. This has protected extremely vulnerable individuals from COVID-19 exposure in the hospital environment and during transportation to hospital.

It has been an honour to present my research work to a much wider audience throughout the UK and to consider learning points from a general medical not just PH point of view. I have been pushed out of my comfort zone and it has been such a valuable experience and the highlight of my career so far.'
Adrian Jennings, consultant physician, The Queen Elizabeth Hospital King’s Lynn NHS Foundation Trust and director of CPD for the Federation of the Royal Colleges of Physicians of the UK

Dr Jennings is the clinical and academic lead of the Turner-Warwick lecturer scheme. He and Dr Andrew Goddard created the scheme in 2019 following the success of the Quincentennial lecturer scheme. Dr Jennings was also an RCP regional adviser for the Eastern region from 2009 until 2019.

It has been an enormous pleasure to see the Turner-Warwick lecturer scheme go from strength to strength since its inception in 2019. The quality and diversity of lectures is a testament to the depth of work carried out by the trainees from our physicianly community.’

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The RCP’s regional network contains 18 nations/regions supported by seven regional offices. The RCP regional offices co-ordinate the Turner-Warwick lecturer scheme in their respective regions in consultation with the regional advisers and Dr Adrian Jennings.

The regional team are proud to lead this esteemed lecturer scheme and the comments from some of the 2021 winners speak for themselves:

“This is the RCP striving to give trainees an opportunity … [programmes like these] make the college very good at what they do.’

– Helen Grover

“My highlight would be the recognition of the work we undertook… it makes all the effort worthwhile, and helped me reflect on my achievement.’

– Jasmine Gan
Each nation/region is supported by regional staff, providing office support and acting as a point of contact for members. They support the work of all the RCP advisers in their nation/region(s) and work closely with RCP officers. In each region, we have a team of volunteers from within the membership who sit on committees as a regional representative and help us offer services and support to fellows and members in their region. The RCP regional staff act as a central point of support for all these regional representatives.

The staff in the regions advise on and organise a range of training, teaching and other activities that are pertinent to physicians in their area. This network connects physicians around the country to the work of the RCP and acts as a conduit to feed-back region-specific information to the RCP’s officers and staff.

In 2020 and 2021 our activities have included virtual conferences and webinars such as, the popular ‘Specialty careers showcase’ and ‘Call the med reg’ as well as the specialty series and acute medicine webinars. For details of upcoming events or on-demand content, please visit the RCP Player.

To find out more about the work of the regional team near you please visit RCP regions webpage.

2023 Turner-Warwick lectures

Applications for the 2023 Turner-Warwick lecturer scheme will open in July 2022.

Please visit www.rcp.ac.uk/education-practice/funding-awards/turner-warwick-lectures for full details.
For further information

Visit: www.rcp.ac.uk/education-practice/funding-awards/turner-warwick-lectures

Email: UKregions@rcp.ac.uk