Foreword

It gives me enormous pleasure to introduce the yearbook for our 2019 cohort of Turner-Warwick lecturers. This flagship scheme celebrates the life and achievements of the Royal College of Physicians’ (RCP’s) first female president, Professor Dame Margaret Turner-Warwick. The scheme is a unique opportunity for trainees to present at a regional meeting.

Traditionally lectures at the regional update in medicine conferences have been delivered by consultants from within the region and the surrounding areas. For 2019 the RCP appointed a lecturer from the trainees in each region (15 in total). The lectures are designed to be of educational value to a general medical audience and include an evidence-based overview of the chosen clinical topic.

In 2019, topics ranged from ‘Enhancing medical registrar training and morale’ to ‘Polio India story: A testimony of indomitable spirit and unflinching resolve’. Many of the lectures have been research-focused and the lecturers have embraced the opportunity to present their research in a formal setting.

The lecturers received a plaque and were invited to attend the 2019 Harveian Oration and dinner, with the overall winner being invited to present at Medicine 2020.

The Turner-Warwick lecturer scheme is going from strength to strength and we are proud of what our trainees have achieved and will continue to achieve going forward. We wish them continued success and hope they stay involved with the RCP and continue to share their learning with us.

Professor Andrew Goddard
President, Royal College of Physicians
The Turner-Warwick lecturer scheme 2019 yearbook

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Grade: StR
Specialty: Nephrology
Region: East Midlands

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The RCP Turner-Warwick lecture was the perfect platform to showcase the many projects and achievements of UHDB in its endeavour to make #medicineisbrilliant.

Lecture title: Enhancing medical registrar training and morale

This lecture outlined in detail the positive impact of engaged college and associate college tutors on medical registrar training and morale. Medical registrars are a disenfranchised sub-population within hospital medicine, and common concerns include: an imbalance in the time spent in service provision versus training, difficulty attaining curriculum sign-off and a lack of procedural competency. Numerous quality improvement projects were designed and successfully implemented to address these needs.

After canvassing medical registrars’ opinions many initiatives were implemented, including: breakfast club, procedures training in clinical skills lab, sharing platform, medical registrars acting as mentors for a junior doctor mentoring programme and collectively creating a customised mug expressing life as a medical registrar.

The breakfast club was held bimonthly and involved peer-led teaching covering 20 curriculum items; due to its success we have continued this for another year. At the procedures event six consultants delivered high-quality training and sign-off in four procedures for 12 medical registrars. The feedback achieved all good/excellent ratings.

The mentoring programme received excellent feedback from the mentees, expressing support in a variety of different aspects of training or career development, and medical registrars were provided with evidence for their portfolios. The sharing platform explored ways to enhance training and improve quality of life at work, and was supported by management and senior clinicians, demonstrating that medical registrars are a priority in our trust.

To conclude, the initiatives required time, organisation and minimal financial input but were well attended, received and valued by the medical registrars. These projects are continuing with improvements into this year’s medical registrar cohort.

The benefits were felt throughout the trust, with a sense of pride and positivity in the training and support we deliver to our trainees. Personally, a benefit was the encouragement to take improving medical training to newer heights.
Dr Zenas Z N Yiu

Organisation: University of Manchester
Grade: National Institute for Health Research (NIHR) clinical lecturer
Specialty: Dermatology
Region: Mersey

The Turner-Warwick lectures were a great opportunity for me to present my research findings to a broad physician audience. It was also a pleasure to share some of the advances in the treatment of psoriasis with a non-dermatological physician audience.’

**Lecture title:** An investigation into the association and prediction of serious infection in patients on biologic therapies for psoriasis

Biologics have transformed the treatment of severe psoriasis, but patients are often concerned about the associated risk of serious infection. The lecture explored whether biologics are associated with a higher risk of serious infection compared with non-biologic systemic treatments in patients with psoriasis, and identified predictors of serious infection in a prognostic model.

The British Association of Dermatologists Biologic Interventions Register (BADBIR), a national pharmacovigilance registry of patients with severe psoriasis, was utilised for two studies. Adjusted Cox regression models were performed to compare the risk of serious infection between etanercept, adalimumab, infliximab and ustekinumab, and non-biologic systemic therapies. Predictors of serious infection risk in the first year after initiation of therapy were subsequently selected in a risk prediction model. No significant increases in the risk of serious infection were observed for etanercept (adjusted hazard ratio (adjHR) 1.10, 95% confidence interval [0.75, 1.60]); adalimumab (adjHR 0.93 [0.69, 1.26]) or ustekinumab (adjHR 0.92 [0.60, 1.41]) compared with non-biologics, while infliximab was associated with an increase in the risk of serious infection (adjHR 1.95 [1.01, 3.75]).

Out of 10,033 participants, 175 (1.7%) had a serious infection within 1 year of initiating treatment. The optimism-corrected C-statistic and calibration slope of the prediction model were 0.64 [0.60, 0.69] and 0.88 [0.70, 1.07] respectively.

Clinicians should take into account an increased risk of serious infection when considering infliximab for the treatment of psoriasis. The prediction model will help psoriasis patients and clinicians identify modifiable risk factors and enable patients to be identified for closer monitoring and intervention.

It was a great privilege and honour for me to be awarded the Turner-Warwick lecture in the North West. I enjoyed my lecture immensely, and appreciated the unique opportunity to reach out beyond my own specialty and share my research findings to other medical specialists in a friendly setting.’
Dr Matthew Pavitt

Organisation: Royal Brompton Hospital
Grade: StR
Specialty: Respiratory medicine
Region: Kent, Surrey and Sussex

The Turner-Warwick lecturer series was a fantastic opportunity to display my research and to express my appreciation for the achievements of Dame Turner-Warwick.’

Lecture title: Oral dietary nitrate supplementation to enhance pulmonary rehabilitation in COPD: a multicentre, double-blind, placebo-controlled, parallel group study

This lecture explored the hypothesis that dietary nitrate supplementation would enhance the effects of pulmonary rehabilitation in stable chronic obstructive pulmonary disease (COPD).

Nitrate supplementation has been shown to augment exercise training. For individuals with COPD, dyspnoea during daily activities is a frequent occurrence with exercise training through pulmonary rehabilitation (PR), a well-established and effective therapy to ameliorate this. Dietary nitrate supplementation has been shown to reduce the oxygen cost of exercise in COPD.

In a multicentre, double-blind, placebo-controlled trial (ISRCTN27860457) we compared the effect of 140 mL nitrate-rich beetroot juice (BR, containing 12.9 mmol nitrate) to matched placebo (PL), nitrate-depleted beetroot juice, consumed 3 hours before attending each PR session. The primary outcome was change in incremental shuttle walk test (ISWT) distance and analysis was by intention to treat. Results were presented as median (range), unless otherwise stated.

A total of 166 COPD patients were recruited of whom 122 successfully completed the study (age 67.6 ± 9.5 years, BMI 27.3 ± 5.9 kg/m², FEV1 percent predicted 49.3 ± 17.4%, ISWT distance 286.7 ± 151.6 m [mean ± SD]). The improvement in ISWT distance was significantly greater following nitrate supplementation 60.3 m (110.0, 180.0) vs 30.0 m (-70.0, 290.0) for placebo, p=0.011). Both groups had a statistically significant improvement in the mean scores for the CAT, HAD A, HAD D and MRC dyspnoea scores following PR.

Dietary nitrate supplementation in association with PR can enhance the gains in exercise capacity in COPD patients.

The opportunity to present at the regional “Update in medicine – Brighton” was an incredible experience and a privilege to stand on the same stage as some truly inspirational colleagues.’
Dr Stephen Spencer

Organisation: North Bristol NHS Trust
Grade: Core medical training
Specialty: ACCS acute medicine (infectious diseases)
Region: South West

The Turner-Warwick scheme offered the perfect platform to present my research in its entirety; it was the chance to showcase the need, the methods, the challenges and learning points of carrying out international clinical research work since I embarked on this journey as a fourth-year medical student in 2013.

Lecture title: Tackling schistosomiasis in the remote rainforest communities of Madagascar

This lecture delved into a 4-year research project in the remote rainforest regions in the east of Madagascar. Founded and led by medical students and junior doctors, the MADEX-expedition research team has determined and tackled the burden of disease of Schistosoma mansoni on rainforest populations.

Hepatosplenic schistosomiasis results in nearly 2.2 million disability-adjusted life years (DALYs) lost per year and 130,000 deaths per year in sub-Saharan Africa. In Madagascar, 107/114 districts are endemic. Across four research expeditions from 2015 to 2018 we have investigated schistosomiasis prevalence and morbidity in school-aged children, and provided treatment and education for children living in the Marolambo Rainforest, east Madagascar.

Prevalence was determined by Kato-Katz and urine circulating cathodic antigen tests. Children were interviewed using Pediatric Quality of Life Inventory (PedsQL) and Knowledge, Attitude and Practices (KAP) questionnaires. Anaemia and malaria were assessed using point-of-care tests and periportal fibrosis using hand-held ultrasonography powered by a portable solar panel.

The prevalence of S. mansoni infection dropped from 97% to 88% from years 1 and 2 to year 3. Peri-portal fibrosis was present in 31/275 (11.3%) of children and correlated both with infection intensity and age (p=0.0166, p=0.0313, respectively). Results revealed alarming schistosomiasis prevalence and disease burden. In addition to annual treatment with praziquantel, improving health education and access to safe water would be important complementary measures to reduce the disease burden. Further study is warranted to determine whether more frequent treatment is required in hyperendemic, high-risk areas with minimal access to healthcare or safe water.

The Turner-Warwick lecture was a fantastic opportunity to present my research to colleagues in the region and raise awareness about a topic I am passionate about – neglected tropical diseases. It was certainly great fun to deliver to such a receptive audience.
Dr Thomas Marjot

Organisation: Oxford University Hospitals
Grade: ST4
Specialty: Gastroenterology and hepatology
Region: Oxford and Thames Valley

The Turner-Warwick lecture represented a fantastic opportunity to talk about a clinical and research area I am passionate about to a broad general medical audience. Awareness of NAFLD and the means to diagnose it and assess severity are often lacking. The Turner-Warwick lecture allowed me a privileged platform to disseminate information and offer a valuable chance to develop further as a public speaker.’

Lecture title: The global NAFLD epidemic and how to find cirrhosis

This lecture highlighted the increasing burden and clinical significance of non-alcoholic fatty liver disease (NAFLD) and described how to make the diagnosis and assess severity.

The prevalence of NAFLD has increased alongside the global epidemic of obesity and type 2 diabetes (T2DM); by 2020, NAFLD will become the commonest cause of liver transplantation worldwide. NAFLD and T2DM regularly coexist and synergistically drive adverse outcomes, predominantly from cardiovascular disease. My quality improvement project aimed to define the attitudes and clinical practice of UK diabetologists towards NAFLD and to implement an evidence-based pathway for its assessment in diabetic outpatient clinics.

An online survey was disseminated to UK diabetologists. Subsequently, an awareness campaign and screening algorithm incorporating the validated Fib-4 index (combining age, platelets, AST:ALT ratio) were implemented across clinics in a secondary-care setting.

133 specialists responded to the survey. Less than 5% of responders correctly assessed the prevalence and severity of NAFLD. While most clinicians performed liver function tests, only 5.7% had ever used a non-invasive algorithm to stage the severity of NAFLD. Implementation of a local awareness campaign and screening strategy using pre-printed blood forms ensured 100% (n=392) of patients attending diabetes clinics over a 6-month period were screened for advanced NAFLD using the Fib-4 index; 18% were deemed at risk of advanced fibrosis requiring further investigation.

Among UK diabetologists, the prevalence and severity of NAFLD are grossly underestimated. The Fib-4 index can easily be incorporated into clinical practice to identify patients at risk of advanced fibrosis who require further assessment.

Delivering the Turner-Warwick lecture was an enjoyable and highly rewarding experience. I learnt a great deal about how to package and communicate specialist information to a general medical audience. The lecture felt like a real focal point of the training day and as a result I have undoubtedly developed as a lecturer and public speaker.’
Dr Amit Sud

Organisation: The Institute of Cancer Research; The Royal Marsden NHS Foundation Trust
Grade: StR
Specialty: Haematology
Region: London

I applied to the Turner-Warwick lecture scheme as it provided me with an opportunity to communicate my scientific research, and to contribute to and engage with the Royal College of Physicians.

Lecture title: Cancer genetics – a voyage of discovery

With a lifetime risk of a cancer diagnosis now approaching 50%, there is renewed interest in the role of our genetics in the aetiology of cancer. This lecture explored our genetic susceptibility to cancer, how identifying genetic risk factors informs our understanding of cancer, and how such information can improve the management of patients through early diagnosis, the identification of lifestyle risk factors and the development of new therapeutic options.

Using genetic data from tens of thousands of individuals, I have demonstrated that common genetic variation, as well as rare genetic mutations, contribute to an individual’s risk of developing cancer. I have used such genetic data to identify lifestyle factors which contribute to cancer risk, such as the relationship between hypercholesterolaemia and colorectal cancer. Furthermore, as such genetic risk factors are common in the population, I have constructed genetic risk scores to identify individuals in the population that are at increased risk of developing malignancies such as multiple myeloma. Such data offers the prospect of improved prevention and early detection.

Finally, I have demonstrated that therapies which target genes implicated through genetic susceptibility studies are more likely to be efficacious. Integration of this genetic data may therefore improve the efficiency of drug discovery pipelines as well as identify novel therapeutic targets. As large numbers of the population are being genetically profiled through initiatives such as the 100,000 Genomes Project, it is now appropriate to integrate our knowledge of germline genetics into clinical practice in order to improve patient outcomes.

The Turner-Warwick lecture scheme gave me an opportunity to receive feedback on my research and presentation from a diverse audience.
Dr Charlotte Boughton

Organisation: University of Cambridge
Grade: StR
Specialty: Diabetes and endocrinology
Region: Eastern

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The Turner-Warwick lecture seemed like a really good opportunity to share my clinical and research interests with the wider medical community and to gain experience in delivering lectures to a general medical audience.’

Lecture title: The artificial pancreas for hospitalised patients with diabetes

This lecture highlighted the changing landscape of inpatient diabetes management using emerging technologies. Significant challenges face diabetes inpatient services: one in six hospital beds are occupied by someone with diabetes, and people with diabetes have higher infection rates, longer length of stay and increased mortality than those without diabetes.

Glucose control in many inpatients with diabetes is sub-optimal. Closed-loop insulin delivery, the ‘artificial pancreas’, has the potential to transform inpatient diabetes management, improving efficacy and safety and reducing healthcare professional workload. We have undertaken three randomised controlled studies comparing fully closed-loop insulin delivery with standard insulin therapy in non-critical care inpatients with hyperglycaemia requiring insulin. The most recent study involved inpatients requiring enteral and/or parenteral nutrition, where glucose management is particularly challenging.

The proportion of time when glucose was in target range (5.6–10.0 mmol/L) was 32.0 percentage points greater (p<0.001; primary endpoint) and time spent above target was 32.6 percentage points lower (p<0.001) in the closed-loop group compared with the control group. This equates to approximately 6 additional hours with glucose levels in target each day.

Closed-loop reduced mean glucose by 2.9 mmol/L (p=0.001) and standard deviation of glucose by 1.1mmol/L (p=0.003) compared with conventional insulin therapy. Improvements in glucose control were achieved with comparable time in hypoglycaemia <3.0mmol/L (p=0.37) and total daily insulin delivered (p=0.47) between groups. No episodes of severe hypoglycaemia or hyperglycaemia with ketonaemia occurred in either group. Future studies are planned to determine if the improved glucose outcomes achieved with closed-loop insulin delivery can translate into improved clinical outcomes.

The Turner-Warwick scheme allowed me to raise the profile of the research work that I am doing and provided networking opportunities with potential future collaborators. The experience allowed me to build my confidence in delivering lectures to a broad medical audience.’
The Turner-Warwick lecture prize provides a fantastic opportunity to showcase my own research to a regional clinical audience. It also provides an opportunity to further develop my presentation skills, supplemented with the unique opportunity to meet and network with inspiring leaders in medicine at the annual RCP Harveian Oration and dinner.’

– Dr Kenneth Baker
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Dr Kenneth Baker and Professor Andrew Goddard at ‘Update in medicine’ – Newcastle

Professor Andrew Goddard, Dr Kunal Mhapankar and Dr Gareth Llewelyn at the RCP and the SoPW joint annual update in acute and general internal medicine – Cardiff.

SoPW = Society of Physicians in Wales
Dr Louise Alexander

Organisation: Belfast Health and Social Care Trust
Grade: ST6
Specialty: Care of the elderly and stroke medicine
Nation: Northern Ireland

I applied to the Turner Warwick lecture scheme as it is an excellent opportunity to gain experience of presenting to a wide general medical audience and an opportunity to share recent advances in hyperacute stroke treatment with physician colleagues from the region I work in.

Lecture title: Thrombectomy – a gamechanger for stroke in Northern Ireland

Stroke due to large vessel occlusion (LVO) is devastating, leading to death or dependency in 75% of patients. Successful treatment for these severe strokes requires rapid recanalisation of the affected artery. Mechanical thrombectomy using stent retrieval has revolutionised treatment of stroke due to LVO. A meta-analysis of five trials involving 1,287 patients undergoing endovascular therapy showed significant improvements in functional outcomes at 90 days with 46% achieving independence compared with 26.5% in the non-interventional group.¹

A mechanical thrombectomy service has been developed in the Royal Victoria Hospital (RVH) to enable the delivery of this treatment to Northern Ireland. A regional guideline was developed involving health trusts, the public health agency and the ambulance service. There has been a year-on-year increase in patients receiving thrombectomy. Sentinel Stroke National Audit Programme (SSNAP) figures show that for the year ending March 2018, the RVH site performed the fourth highest number of thrombectomy procedures (68). This accounted for 9% of all procedures performed despite the Northern Ireland population representing only 2.6% of the total catchment population covered by SSNAP. Between 2014 and 2017, 211 patients underwent thrombectomy.

Successful recanalisation was achieved in 83% (176/211) with 56% (120/214) being independent (modified Rankin Score 0–2) at 90 days. A further 120 patients received thrombectomy in 2018 with complete 3-month outcome data awaited.

In conclusion, the RVH has developed a leading thrombectomy service, providing access to this life-changing treatment and providing favourable outcomes comparable to results from published trials.


This was a fantastic experience – I have gained confidence and skills in presenting to a large audience which I will be able to take forward for future presentations. It was also an enjoyable experience to engage with a wide range of clinicians in my region from outside my own specialty.
This lecture explored the concept of acute sarcopenia associated with hospitalisation, and the underlying mechanisms of this phenomenon. An update on current interventions, including findings from the Southampton Mobility Volunteer programme (SoMoVe™ study), were presented.

Acute sarcopenia is defined as a loss of muscle strength and mass that has lasted less than 6 months and is usually related to an acute illness leading to a period of reduced mobility. Acute sarcopenia is a central mechanism in the development of hospital-associated deconditioning, an issue which is highly relevant to all hospital-based clinicians.

Physical inactivity during hospitalisation is a ubiquitous problem and inpatient physical activity interventions delivered by healthcare professionals have been shown to improve functional outcomes. The #EndPJparalysis campaign has contributed significantly in raising awareness regarding the importance of mobilising patients yet innovative approaches are needed to ensure that these interventions are deliverable and sustainable.

Funded by NIHR CLAHRC: Wessex, the SoMoVe™ study developed training programmes for volunteers and exercise schedules for patients. This study demonstrated that it was feasible and safe to train volunteers to encourage increased activity among older inpatients and the intervention was highly acceptable to patients and staff. Findings from this study will inform future implementation studies.

The experience gained from delivering this prestigious lecture has been invaluable. It has helped me greatly in improving my presentation skills and has opened doors to engage with other specialties about the important subject of acute sarcopenia.'
I applied to the Turner-Warwick scheme because I hoped to share some of the work I have been involved with during my PhD in a forum of physicians of all stripes. The advent of new neurostimulatory techniques to treat post-stroke dysphagia has the potential to change patient care in the hopefully not too distant future.

Repetitive transcranial magnetic stimulation (rTMS) is a technique which can alter neuronal activity. Swallowing centres in the brain are represented bilaterally but asymmetrically. Damage to the ‘dominant’ centre has a greater chance of causing dysphagia. In post-stroke dysphagia, recovery of swallowing function is associated with increased activity in the undamaged centre. These compensatory changes are not seen in patients with persisting dysphagia. Compensation can be induced by cortical rTMS.

My work began exploring if stimulation of the cerebellum, activated during swallowing, can improve swallowing after dysphagic stroke. This is important because the cerebellum is safer, quicker and easier to stimulate than the cortex. The first phase of my study was to determine if cerebellar stimulation can reverse loss of function induced by a ‘virtual lesion’, as a prelude to using cerebellar stimulation therapeutically. Healthy participants (n=15) were intubated with a pharyngeal catheter. Swallowing performance was measured using a swallowing reaction time task. Participants received 10 minutes of 1 Hz rTMS (virtual lesion) to the pharyngeal motor cortex which elicited the greatest electrical response. This is known to disrupt swallowing behaviour.

Over 3 visits, participants were randomised to receive 250 pulses of 10 Hz cerebellar rTMS to the ipsilateral side (to the virtual lesion), contralateral side or sham. Swallowing performance was measured every 15 minutes for an hour afterwards. Swallowing accuracy was significantly better for ipsilateral and contralateral rTMS compared with sham (p=0.025). Contralateral stimulation had a greater positive effect. This suggests cerebellar rTMS may be useful in dysphagic stroke.

Lecture title: Neurostimulation and its emerging role in dysphagia recovery post stroke

Being selected to deliver the Turner-Warwick lecture was surprising as well as being an honour. I have long felt the neurostimulatory work I am involved with is exciting – but anything can seem exciting if you are closeted away in a lab for a period of time – and it was heartening to find that others felt the same way.

Dr Ayodele Sasegbon

Organisation: University of Manchester
Grade: ST4 (OOPR)
Specialty: Gastroenterology
Region: North Western

This lecture presented a novel quality improvement project developed to improve care of patients referred acutely to secondary care with severe hypertension. Such patients are at increased risk of cardiovascular complications but may also be at risk from over-rapid blood pressure (BP) reduction.

Patients referred from the emergency department (ED), ambulatory emergency care (AEC), GPs and inpatient admissions were reviewed by the clinical pharmacology team. Where possible, admissions were avoided, and inpatients were discharged promptly following treatment for early review in AEC. In AEC, medications were rationalised to achieve BP control, taking into account drug tolerability, adverse effects and patient choice. Relevant investigations, specifically for secondary hypertension, were ordered. Care was transferred to the outpatient clinic or primary care once BP was improving.

A total of 110 patients (mean age 48 years [SD 14]; 50% female; 42% new hypertension diagnoses) were reviewed over 1 year. Overall, 48 admissions were prevented and intervention in 39 inpatients facilitated early discharge (median length of stay 2 days); 102 patients were seen in AEC (median 3 reviews). The mean BP reduction between first encounter and transfer of care was 47/24 mmHg. The median number of drugs increased from one to three; overall, medications were changed in 90%, drugs were discontinued in 25% and rationalised in 18%. Significant reductions in BP were achieved, improving care, preventing admissions, facilitating early discharge and reducing bed occupancy.

Ongoing patient-centred, personalised medicine prevents polypharmacy and promotes appropriate prescribing. This simple intervention is transferrable across the NHS and requires minimal resources.
This lecture described practical ways of providing high-quality health education to patients in outpatient, inpatient and community settings with the aims of preventing comorbidities and reducing NHS pressures long term. The present study, supported by the University of Birmingham and senior medical education stakeholders from the General Medical Council (GMC), RCP and Academy of Medical Royal Colleges (AoMRC), explored postgraduate healthcare trainees (n=73) as leaders of health education training to pupils (n=2,547) and parents (n=303) using a novel HEALTH approach in UK secondary schools (n=15) in regions of varying deprivation.

Health education focused on: healthy living to prevent the development of comorbidities, optimising control of common chronic illnesses and how to perform basic life support. Results identified statistically significant improvements in public knowledge of these areas and willingness to modify health behaviours as well as increased aspirations to apply for NHS careers with greater effects in regions of greater deprivation. Results also identified enhanced perceptions of healthcare trainees’ confidence in leadership as per the Medical Leadership Competency Framework and medical education skills as per the Association for Medical Education in Europe’s (AMEE’s) roles of the clinical tutor which are transferable to the clinical environment to improve patient care and outcomes.

In conclusion, HEALTH is a novel and effective approach to delivering health education messages to modify patient behaviour.

The lecture discussed this approach and how it can be used in a sensitive yet effective way to maintain a good doctor–patient relationship. The implications for reducing burdens of disease, up-skilling the workforce and widening participation to careers in healthcare are also discussed. The author was invited by the former prime minister (Theresa May) to Downing Street in recognition for services to medical education and is liaising with the Department for Education to widen this programme into other areas of health education.

Delivering the Turner-Warwick lecture in the West Midlands has been one of the greatest honours and most prestigious occasions in my career thus far.’
Dr Kunal Mhapankar

Organisation: Royal Gwent Hospital
Grade: Core medical training
Nation: Wales

When I read that the Turner-Warwick Lecture scheme is in honour of the first female president of the RCP, it made me realise that the scheme would offer an opportunity to people doing pioneering work in their field. I also felt that the world needs to know about the indomitable spirit of India and its battle against polio, and what better than this scheme to present it in front of a large audience.’

Lecture title: Polio India story: A testimony of indomitable spirit and unflinching resolve

There was a time, not so long ago when India was considered the epicentre of polio and rightfully so. Vast landscape, open defecation, callous attitude towards the disease coupled with financial constraints and an overwhelming population reinforced that ending polio in this country would be next to impossible. I was a part of the polio eradication project. I was deployed by the World Health Organization (WHO) in the Indian state of Bihar that was infamous for its lawlessness, poor healthcare, high rate of virus transmission and disproportionately large number of polio cases, as well as for harbouring some of the most difficult geographical terrains in the world.

My role was to ensure 100% coverage of children less than 5 years of age with the oral polio vaccine during supplemental immunisation or ‘pulse polio’ rounds, to maintain adequate surveillance of acute flaccid paralysis, to strengthen routine immunisation and to conduct mop-up rounds if needed. The challenges were many: accessibility, manpower, vaccine preservation and ensuring accountability to name a few. My journey encompassed witnessing first-hand the second last case of confirmed polio in the entire WHO South-East Asia region (SEARO) to leading a sero-prevalence study to check for adequate seroconversion in a range of paediatric population from 6 months to 5 years of age.

The world witnessed the realisation of the ‘impossible’ in March 2014 when WHO declared the South-East Asia region, including India, polio-free. It was an ode to the thousands of field workers as well as healthcare and allied professionals who had worked tirelessly to accomplish this mammoth task.

I personally found that the opportunity to present my work with the WHO as a Turner-Warwick lecturer not only allowed me to showcase my work but also provide recognition and acknowledgement to the thousands of vaccinators and grassroot level workers who had toiled hard to achieve a polio-free India.’
Dr Daniel Pan

**Organisation:** Hull University Hospitals NHS Trust  
**Grade:** National Institute for Health Research (NIHR) academic clinical fellow  
**Specialty:** Infectious diseases and general internal medicine  
**Region:** Yorkshire

I applied for the lecture scheme as an opportunity to challenge myself – to present my work in front of a broad yet distinguished audience! I am particularly grateful to Professor Andrew Clark and Dr Pierpaolo Pellicori for their generous guidance and supervision in carrying out this project, and dedicate my lecture to them both.'

**Lecture title:** The chest X-ray in acute heart failure – does a worse initial appearance relate to adverse long-term outcomes?

The lecture explored the initial appearance of chest X-ray (CXR) in patients presenting to hospital with possible acute heart failure (AHF) and assessed the relation between CXR appearance and outcome. The chest radiographs of patients admitted to Hull University Hospitals NHS Trust with AHF were examined for pulmonary venous congestion, Kerley B lines, pleural effusions and alveolar oedema. Film projection (whether posterior-anterior (PA) or anterior-posterior (AP)) and cardiothoracic ratio (CTR) were also recorded.

Of the 1,145 patients enrolled, 975 patients (mean age 74 years, median NT-proBNP 5,046 ng/L, interquartile range IQR 2,361–10,795) had an adequate initial radiograph. 70% had AP CXRs, 61% had reduced left ventricular ejection fraction. Pulmonary venous congestion was present in 78%; Kerley B lines 71%; pleural effusions 67%; alveolar oedema 64%.

The mean CTR was 0.59 (standard deviation, SD 0.07). In 11%, the CTR was >0.70 or unmeasurable. An increased CXR score, constructed using radiographical variables related to mortality on univariable Cox regression analysis, was associated with earlier all-cause mortality (hazard ratio 1.10, 95% confidence intervals 1.07–1.13, p<0.001) as well as age, urea, NT-proBNP as well as decreasing initial systolic blood pressure, haemoglobin and albumin. It appears that worsening appearance of the initial CXR is very common in patients admitted to hospital with AHF and is related to a worse prognosis.

The lecture then went on to discuss the heterogeneity of patients presenting to hospital with AHF, an update in current clinical trials in AHF as well as how to differentiate the patient admitted with flash pulmonary oedema to that of chronic fluid overload.

'It is a great honour to be associated with the Royal College of Physicians in such a way. The scheme has consolidated my ambitions to pursue an academic clinical career.'
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Dr Kenneth Baker

**Organisation:** Newcastle University  
**Grade:** National Institute for Health Research (NIHR)  
clinical lecturer (ST7)  
**Specialty:** Rheumatology  
**Region:** Northern

I applied for the Turner-Warwick lecture prize as it provides a platform to let fellow trainees and consultants from a wide range of specialties know about my research. Furthermore, the prestige associated with the prize through its affiliation with the RCP is certainly a mark of esteem to help develop my future academic career.

**Lecture title:** ‘Can I stop my tablets Doc?’ Drug-free remission in autoimmunity – myth or reality?

This lecture discussed how ongoing research to predict drug-free remission could revolutionise the management of autoimmune diseases. Therapeutic advances have made sustained disease remission an achievable target for many patients across a range of autoimmune diseases including inflammatory arthritides, inflammatory bowel disease and psoriasis. Nevertheless, the use of potent immunosuppressives carries risks of life-threatening drug toxicity and infection, and requires expensive and intrusive safety monitoring. This poses an increasingly encountered clinical dilemma: is it possible to reduce or even stop these drugs once disease remission is achieved?

Using the example of rheumatoid arthritis (RA), I summarised evidence to demonstrate the existence of drug-free remission, supported by my own research: the Biomarkers of Remission in Rheumatoid Arthritis (BioRRA) study. In this prospective interventional clinical trial, drug-free remission was maintained by 23/44 (52%) patients 6 months after cessation of immunosuppression.

A five-variable composite score (three genes expressed by CD4+ T cells, one circulating cytokine, and one clinical measure of disease activity) successfully predicted flare vs remission with a sensitivity of 91% (95% confidence interval (CI) 78–100%), specificity of 95% (84–100%), and area under the receiver operating characteristic curve (ROCAUC) of 96% (91–100%).

In conclusion, drug-free remission is achievable in a subset of patients with RA, and can be predicted by baseline clinical and laboratory biomarkers. If successfully validated, these biomarkers would help guide an intelligent withdrawal of immunosuppression in selected patients – a paradigm shift towards the personalised therapy of autoimmune disease.

The Turner-Warwick lecture prize provided a fantastic opportunity to showcase my own research to a regional clinical audience. It also provided an opportunity to further develop my presentation skills, supplemented with the unique opportunity to meet and network with inspiring leaders in medicine at the annual RCP Harveian Oration and dinner.’
In 2017 the RCP asked its regional teams to identify ways to involve trainees in the events celebrating the RCP’s 500th anniversary. I suggested that each regional update might have a Quincentennial lecture, but instead of this being delivered by an eminent consultant physician we should hold a competition for trainee physicians to give the lectures. The idea was very well received, so the Quincentennial Lecturer Scheme was introduced for 2018. It was clear early on that the scheme was successful, with excellent lectures and a number of heart-warming stories, so following discussions with Professor Goddard, we adapted the scheme, maintaining the principles of the Quincentennial scheme and introduced the Turner-Warwick Lectures for 2019.

Dr Jennings is the clinical and academic lead of the Turner-Warwick lecturer scheme. He and Professor 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 to 2019.
RCP regions

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

RCP nations and regions

- Eastern
- East Midlands (North)
- East Midlands (South)
- Kent, Surrey and Sussex
- London (Central and North East)
- London (North West)
- London (South)
- Mersey
- North Western
- Northern
- Northern Ireland
- Oxford and Thames Valley
- Peninsula
- Severn
- Wessex
- Wales/Cymru
- Yorkshire
- West Midlands

2020 Turner-Warwick lectures

Applications are now open for 14 Turner-Warwick lectures in 2020.

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

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

Email: UKregions@rcplondon.ac.uk