



SCHOLARSHIP REPORT

This report should be completed by recipients of awards and scholarships from the Royal College of Physicians and Surgeons of Glasgow on completion of the activity for which they received their award or scholarship. Please complete all sections of the report form.

Please return your completed report via email to: **scholarships@rcpsg.ac.uk**

Or via mail to: **Scholarships Committee Administrator, Royal College of Physicians and Surgeons of Glasgow,
232-242 St Vincent Street, Glasgow G2 5RJ, UK**

Please use typeface when completing this form.

| SECTION 1 PERSONAL AND AWARD DETAILS | | | |
|--|------------------------|----------------|--|
| Title | Mr | PID | Membership applied for but not complete. |
| Surname | Pearce | Forename(s) | Adam |
| Scholarship/award awarded | Medical Elective Award | Amount awarded | £1000 |

| SECTION 2 PROJECT/VISIT DETAILS | |
|-----------------------------------|--|
| Name/Title | Peruvian Amazon Medical Elective in collaboration with DB Peru NGO |
| Location | Loreto Region, Amazon Basin, Peru |
| Aims and objectives | <p>I planned my elective to allow me to achieve the following objectives.</p> <ul style="list-style-type: none">• Develop knowledge of diseases endemic to this region. Examples include Tuberculosis, Dengue Fever, Malaria and Leishmaniasis.• Develop existing Spanish language knowledge to a level sufficient to conduct medical consultations.• Improve my understanding of global and local health care assessment and planning• Perform general health assessments in a low-resource setting, formulating basic management plans under supervision• As part of planned work on DB Peru's Women's Project, design and conduct at least one Verbal Autopsy – a retrospective interview-based method for determining causes of death - according to guidelines provided by the World Health Organisation.• Plan and deliver at least two sessions of healthcare education to the local people.• Work effectively within a resource-limited team of medical, nursing and dental professionals in temporary clinics, delivering healthcare to people with little access to or knowledge of modern medicine. |

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|--|---|
| <p>Summary</p> <p><i>Include methodology, results and conclusions if applicable</i></p> | <p>My elective period was spent working with a small NGO named DB Peru. They are based in Lima, and carry out the majority of their work in the Amazon River basin in north-east Peru. They have 13 years of experience working with small village communities on the banks of the Napo River, which is a tributary of the main Amazon. Their work consists of many aspects of healthcare, including provision of medical supplies, running of village-based medical and dental clinics, delivery of screening programmes, as well as a large focus on healthcare education.</p> <p>I chose to approach a small NGO for my Elective, as I hoped that this would give me an opportunity to see first-hand the full range of activities involved in delivering humanitarian healthcare to people in such a remote setting. Similarly, I was aware that DB Peru's contacts would also afford me the option to visit and participate in delivery of care within Peru's national healthcare system. I felt that this would give me a better chance to witness the full range of healthcare that people living in this region have available to them.</p> <p>The intersection of the Napo and the Amazon Rivers occurs approximately 50 miles downriver from the city of Iquitos. This is the main Amazonian city in Peru and is the largest city in the world that cannot be accessed by road. I spent some of my time in Iquitos and the majority of my time in the river basin region shown in Figure 1 of the images that I have submitted.</p> <p>My work with DB Peru included the following assignments, in approximate chronological order.</p> <ul style="list-style-type: none"> • A one-day visit to the regional hospital in Iquitos. • Delivery of medical clinics – both village-based and at a local government-run Health Centre • Organisation and delivery of teaching for local health workers • Planning and delivery of a village-based research questionnaire on women's health issues • Additional organisational and administrative duties as needed <p>Outside of my work with the NGO, I also made time to engage in some social and welfare-based activities. This included a two-day period of voluntary work over the Easter holiday at an Orphanage / Residence for socially disadvantaged children.</p> |
| <p>Learning outcomes</p> <p><i>Detail here how the aims and objectives were met</i></p> | <p>The experiences that I gained on my Elective allowed me to more than cover the aims that I had set myself before I departed.</p> <p>Experience at the regional hospital and the village-based clinics allowed me to understand how the national healthcare system works for people living in the areas I was visiting. This differs greatly from the kind of access that we have and expect in the UK, and is summarised in Figure 3, below. This experience was vital for me to understand the complementary role that DB Peru's humanitarian work plays alongside the nationally-funded system. Much of the charity's work involves signposting local people to this system and providing assistance to travel to access it. In both settings - the hospital and the clinics - I was able to discuss locally-prevalent diseases and their management with experienced practitioners. One of the most valuable pieces of advice I received was to trust the local people's experience with tropical diseases such as malaria - they tend to recognise it far better than even the healthcare workers, as in some areas, at certain times of the year, as many as 50% of the population can be infected.</p> |

My clinical experience came primarily from participating in two week-long travelling clinics with the NGO – one near the start of my six weeks and one at the end. As part of a team consisting of doctors, nurses, medical and nursing students, I conducted medical histories and examinations on patients and helped to formulate simple management plans. I was fortunate that more experienced members of the team were extremely willing to help me learn, and supervised many new clinical experience for me, such as conducting a top-to-toe neonatal check.

When studying for my first degree - before medical school - I was fortunate enough to be able to spend a year at University in Valencia, Spain. My level of conversational Spanish was therefore already good before I left for Peru. As I had planned in my learning objectives, my medical Spanish knowledge improved vastly during my elective, but I often found that this was not the limiting factor in my ability to communicate with patients. In the UK, it is easy to take for granted that our patients will know how to tell us what they have been experiencing, but my time in this region of Peru helped me realise that I should not assume that this will always be the case. I found that many people had difficulty communicating a history of their symptoms, often because they had very little experience talking about their health. This presented an interesting challenge and allowed me to develop skills - such as using major landmarks in people's lives as references in a history - that I can use when faced with similar challenges in my future practice.

The Health Promoters who take responsibility for health in the villages do not receive any formal training. Approximately every six months, DB Peru invites them to a two-day event to deliver basic medical and healthcare teaching. The founder of DB Peru – Diana – asked me to take responsibility for the organisation of one such event. I was honoured to be asked, and saw the opportunity to put into practice what I had learnt in the optional Teaching and Learning Certificate that I studied last year. I helped a team of ten volunteers to deliver teaching and/or seminars on a range of topics, including Women's Health, Pregnancy, Fever, Cervical Cancer, Cough, TB, Dermatological Conditions and Gender Equality.

DB Peru has an ongoing Women's Project that aims to improve the health of the female population in this region of Peru. Just before the start of my elective, the organisation launched a project called Amazon Community-Based Participation Cervical Cancer Screen and Treat (ABCS) and scheduled the first phase of the project to coincide with my elective. The same team that participated in the teaching described above was responsible for carrying out the baseline data survey for Phase 1 of this project. The intention of Phase 1 is to generate epidemiological data and inform the team on the topics that should be included in the education phase. We spent ten days visiting six villages, interviewing 119 women in total. For many, this was their first experience of such a survey, and there were many social and cultural topics to discuss. The team did this with great respect and sensitivity and the survey was well received in all of the villages. Before the main survey started, I led a team that piloted the questionnaire and made recommendations for content and linguistic changes. During the main survey, as one of the more experienced Spanish speakers in the group, I led a two-person research team on each day. I feel extremely privileged to be one of the few people in the world who has had the opportunity to engage with the women in this region on such a personal level.

I learned many things about ways of life, feelings and attitudes towards health and local health practices from the women that I interviewed. One of the things I had not expected, but which I learned a lot about, was the medicinal plants of the rainforest. These herbal remedies have been used for centuries to treat common ailments such as aches, pains and

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| | <p>fevers. I was also fortunate enough to be able to attend a discussion with a local Shaman, who described how the local healers learn about the plants and the uses they put them to.</p> <p>Peruvian healthcare centres close during the Easter period. Through a personal contact, I was able to arrange a period of volunteering at an orphanage in Iquitos. Set up by a Dutch couple and employing local staff and volunteers, this residential school accommodates children who have been subject to very difficult home environments. The children continue to attend their normal school, but additional social, cultural and educational activities are provided for them. They undertake daily maintenance and cleaning activities alongside their studies, sports and social activities.</p> <p>Before leaving the UK, I visited my former secondary school to initiate a project - based on my elective - with 120 year-8 students who study Spanish. Inspired by my real-life examples of the value of foreign languages, the children produced posters – in Spanish – introducing themselves and their daily routines to Peruvian schoolchildren. I used these posters at the orphanage as the basis for two English lessons, and now have a set of posters from Peru that I took back to showcase at my former school in mid June. As well as teaching English at the orphanage, I also helped with games such as hunting for and then decorating Easter eggs.</p> |
| <p>Evaluation</p> <p><i>How has this scholarship/award impacted on your clinical/NHS practice or equivalent?</i></p> | <p>I would not have been able to travel to Peru for this elective had it not been for the kind support that I received from the RCPSCG.</p> <p>As a result of these experiences, I have a renewed interest in infectious diseases and their management, which will help me put teaching sessions in my final year and my own reading into context. It also brings an area of interest that I plan to incorporate into my future career, either within my NHS training or through further humanitarian work.</p> <p>I have now had a chance to work with doctors, nurses, nurse practitioners and nursing students from a variety of different backgrounds and countries, including Peru, the USA and Australia. This is likely to be invaluable to me in a future NHS that will undoubtedly become increasingly globally connected over the span of my future career.</p> <p>The clinical, teaching and primary research experiences that I gained during my elective have impressed on me the importance of understanding people's background, understanding and beliefs when delivering healthcare and this is something that will be continue to be of great value to me when I interact with patients.</p> <p>It was an honour and a humbling experience to participate in ground-breaking research into the health and medical practices in this remote region of the world. I remain in touch with the doctor leading the project, and am in discussion with her regarding publication of articles based on our experiences.</p> <p>Although I was only there for a short time, my experience at the orphanage impressed on me the importance of social care. Despite their difficult backgrounds, all of the children are thriving within a creative and supportive environment provided by caring volunteers from their local community. I will seek similar ways to help my own communities in the future, particularly through fostering strong links between medical and social care.</p> |

Overall, I feel very privileged to have spent time working with DB Peru in this fantastic part of the world. My experiences demonstrate that I fully engaged with my host organisation and became a much-valued team member. This sentiment was expressed in the feedback from my supervisor. Even the seemingly smallest tasks – such as shopping for the team’s food for our ten-day health survey trip – helped me to appreciate the hours of work and planning that go into delivering each hour of humanitarian healthcare or education in the villages. I learned a lot about my ability to do this sort of work, and have come to appreciate the role that humanitarian healthcare can play alongside national services in remote settings. I look forward to the opportunity to return to Peru in the not-too-distant future.

These images show the remote nature of the region of Peru where I carried out my elective. In the image below, Peru can be seen in the context of the rest of South America. The progressively zoomed images conclude in the upper right box, which shows the Napo and the Amazon Rivers. The communities I worked with were primarily spread along the banks of the Napo River.



Figure 1 - Map showing area of Peru where I spent my Elective. Images © Google Images / Google Maps



Figure 2 - The Regional Hospital in Iquitos

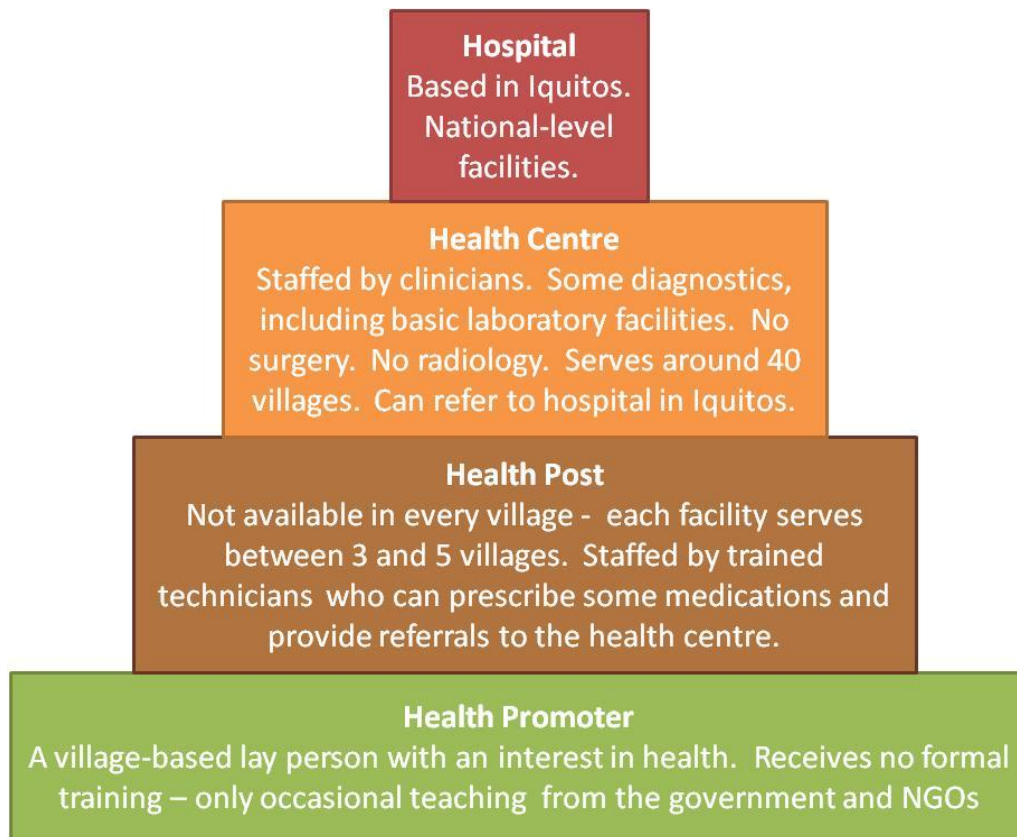


Figure 3 - Schematic of the national health services available to the people living in the region I visited




Figure 4 - The team at work setting up a clinic in a village school building




Figure 5 - The government Health Centre in Mazan


TRATAMIENTO DE LA MALARIA NO COMPLICADA EN LA AMAZONIA




**Organización
Panamericana
de la Salud**



**Organización
Mundial de la Salud**



**PERU Ministerio
de Salud**



**DIRECCION REGIONAL
DE SALUD - LORETO**

MALARIA POR P. vivax

PARA ADULTOS

| MEDICAMENTO | N° DIAS | DIAS | | | | | | |
|---|----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | | 1º | 2º | 3º | 4º | 5º | 6º | 7º |
| CLOROQUINA <small>Tab. x 250 mg (100 mg base)</small> | 3 | 4 Tab. 10 mg/kg | 4 Tab. 10 mg/kg | 2 Tab. 5 mg/kg | | | | |
| PRIMAQUINA <small>Tab. x 15 mg o 7.5 mg</small> | 7 | 2 Tab. 0.50 mg/kg | 2 Tab. 0.50 mg/kg | 2 Tab. 0.50 mg/kg | 2 Tab. 0.50 mg/kg | 2 Tab. 0.50 mg/kg | 2 Tab. 0.50 mg/kg | 2 Tab. 0.50 mg/kg |

PARA NIÑOS

| MEDICAMENTO | N° DIAS | DIAS | | | | | | |
|--|----------|------------|------------|------------|------------|------------|------------|------------|
| | | 1º | 2º | 3º | 4º | 5º | 6º | 7º |
| CLOROQUINA <small>mg/base/kg</small> | 3 | 10 mg | 10 mg | 5 mg | | | | |
| PRIMAQUINA <small>mg/kg</small> | 7 | 0.50 mg/kg | 0.50 mg/kg | 0.50 mg/kg | 0.50 mg/kg | 0.50 mg/kg | 0.50 mg/kg | 0.50 mg/kg |

PARA GESTANTES

| MEDICAMENTO | N° DIAS | PERIODO DESDE LA APARICIÓN DE LA ENFERMEDAD HASTA EL PARTO | | | | | | | | | | | | | | PARTO | | | | |
|---|---------|--|---|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|-------|---|---|---|---|
| | | MES 1 | | MES 2 | | MES 3 | | MES 4 | | MES 5 | | MES 6 | | MES 7 | | P | R | | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | | | | | | |
| | | S | N | S | N | S | N | S | N | S | N | S | N | | | | | | | |
| CLOROQUINA <small>Solubles x 250 mg 100 mg base</small> | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| 2 Tab. Cloroquina semanal hasta el parto | | | | | | | | | | | | | | | | | | | | |
| PRIMAQUINA <small>Taliquina x 15 mg</small> | | | | | | | | | | | | | | | | 2 | 2 | 2 | 2 | 2 |

Advertencia: o los menores de 6 meses **NO ADMINISTRAR** primaquina

Advertencia: **NO ADMINISTRAR** primaquina a Gestantes

MALARIA POR P. falciparum

PARA ADULTOS: ARTESUNATO 250 mg

| MEDICAMENTO | VIA | N° DIAS | DIAS | | |
|--|------|----------|------------------------|------------------------|---------------------|
| | | | 1º | 2º | 3º |
| ARTESUNATO <small>Tab. x 250 mg base</small> | ORAL | 3 | 1 Tab. 4 mg/kg/d | 1 Tab. 4 mg/kg/d | 1 Tab. 4 mg/kg/d |
| MEFLOQUINA <small>Tab. x 250 mg base</small> | ORAL | 2 | 3 Tab. 12.5 mg/kg/d | 3 Tab. 12.5 mg/kg/d | |
| PRIMAQUINA <small>Tab. x 15 mg base</small> | ORAL | 1 | 3 Tab. 0.75 mg/kg/d | | |

PARA ADULTOS: ARTESUNATO 50 mg

| MEDICAMENTO | VIA | N° DIAS | DIAS | | |
|--|------|----------|------------------------|------------------------|---------------------|
| | | | 1º | 2º | 3º |
| ARTESUNATO <small>Tab. x 50 mg base</small> | ORAL | 3 | 5 Tab. 4 mg/kg/d | 5 Tab. 4 mg/kg/d | 5 Tab. 4 mg/kg/d |
| MEFLOQUINA <small>Tab. x 250 mg base</small> | ORAL | 2 | 3 Tab. 12.5 mg/kg/d | 3 Tab. 12.5 mg/kg/d | |
| PRIMAQUINA <small>Tab. x 15 mg base</small> | ORAL | 1 | 3 Tab. 0.75 mg/kg/d | | |

PARA NIÑOS MAYORES DE 6 MESES

| MEDICAMENTO | VIA | N° DIAS | DIAS | | |
|--|------|----------|-----------------|-----------------|-----------|
| | | | 1º | 2º | 3º |
| ARTESUNATO <small>mg/base/kg</small> | ORAL | 3 | 4 mg/kg/d | 4 mg/kg/d | 4 mg/kg/d |
| MEFLOQUINA <small>mg/base/kg</small> | ORAL | 2 | 12.5 mg/base/kg | 12.5 mg/base/kg | |
| PRIMAQUINA <small>mg/base/kg</small> | ORAL | 1 | 0.75 mg/base/kg | | |

PARA NIÑOS MENORES DE 6 MESES Y GESTANTES

| HORA/DIA | MEDICAMENTO | N° DIAS | DIAS | | | | | | | | | |
|---------------|---|----------|------|----|----|----|----|----|----|----|----|-----|
| | | | 1º | 2º | 3º | 4º | 5º | 6º | 7º | 8º | 9º | 10º |
| MAÑANA | GUININA <small>mg/kg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| | CLINDAMICINA <small>mg/kg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| TARDE | GUININA <small>mg/kg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| | CLINDAMICINA <small>mg/kg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |

FALLA TERAPEÚTICA A ARTESUNATO - MEFLOQUINA

PARA ADULTOS

| HORARIO | MEDICAMENTO | N° DIAS | DIAS | | | | | |
|---------------|---|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| | | | 1º | 2º | 3º | 4º | 5º | 6º |
| MAÑANA | GUININA <small>Tab. x 250 mg</small> | 7 | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg |
| | CLINDAMICINA <small>Tab. x 300 mg</small> | 7 | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg |
| TARDE | GUININA <small>Tab. x 500 mg</small> | 1 | 1 Tab. 10 mg/kg | | | | | |
| | CLINDAMICINA <small>Tab. x 150 mg</small> | 7 | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg |
| NOCHE | GUININA <small>Tab. x 300 mg</small> | 7 | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg |
| | CLINDAMICINA <small>Tab. x 300 mg</small> | 7 | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg | 2 Tab. 10 mg/kg |

PARA NIÑOS MAYORES DE 6 MESES

| HORARIO | MEDICAMENTO | N° DIAS | DIAS | | | | | | | | | |
|---------------|---|----------|--------------------|----|----|----|----|----|----|----|----|-----|
| | | | 1º | 2º | 3º | 4º | 5º | 6º | 7º | 8º | 9º | 10º |
| MAÑANA | GUININA <small>Tab. x 250 mg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| | CLINDAMICINA <small>Tab. x 300 mg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| TARDE | GUININA <small>Tab. x 500 mg</small> | 1 | 1 Tab. 10 mg/kg | | | | | | | | | |
| | CLINDAMICINA <small>Tab. x 150 mg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| NOCHE | GUININA <small>Tab. x 300 mg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |
| | CLINDAMICINA <small>Tab. x 300 mg</small> | 7 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | |

Figure 6 - Peruvian government treatment schedule for Malaria (Poster © Ministerio de Salud de Peru)



Figure 7 - Teaching the Health Promoters



Figure 8 – Leading an English lesson at the orphanage in Iquitos

SECTION 4 | EXPENDITURE

Breakdown of expenditures

Please demonstrate how the scholarship/award funding was used to support your project/visit

Approximate total costs of my elective are detailed below. I am extremely grateful to the Royal College for your kind support in meeting a substantial proportion of these costs.

Flights – UK to Iquitos - £600

DB Peru Host Expenses (including accommodation for four weeks, food for one week and all river travel during 6 week elective) - £800

Food - for remaining five weeks - £200

Accommodation - for remaining two weeks - £200

Immunisations and Medications – including Malaria tablets - £100

Mosquito nets, repellants and long-sleeved clothing - £150

Travel Insurance – Specialist cover for Medical Electives - £70

APPROXIMATE TOTAL COST OF ELECTIVE - £2120

SECTION 5 | PUBLICATION

Scholarship/award reports may be published in College News. Please tick here if you agree to your report being published.

☒ I give permission for my report to be published in College News

If your report is selected for publishing, the editor of College News will be in touch to discuss this with you.

All Information we hold concerning you as an individual will be held and processed by the College strictly in accordance with the provisions of the Data Protection Act 1998. Such data will be used by the College to administer its relationship with you as a Fellow or Member. We will not, without your consent, supply your name and address to any third party except where (1) such transfer is a necessary part of the activities that we undertake, or (2) we are required to do so by operation of law. As an individual you have a right under the Data Protection Act 1998 to obtain information from us, including a description of the data that we hold on you. Should you have any enquiries about this right please contact Membership Services Administrator at the College.