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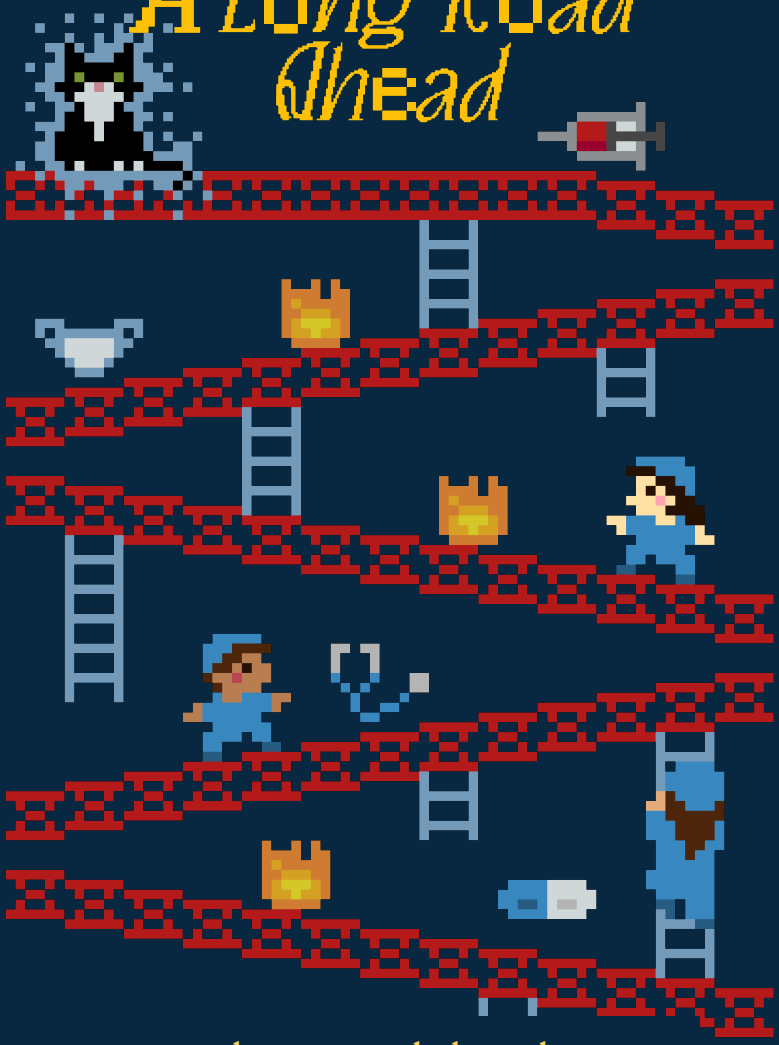
# GKT Gazette

## A Long Road Ahead



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# GAZETTE

# GKT

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# Passim: A Long Road Ahead

Editor - Morgan Bailey **iBSc in History and Philosophy of Medicine**

Dear Readers,

Welcome to issue number two of Volume 134 of the Gazette. Since our previous edition in November of 2024, much has changed internally and externally to the three hospitals we call home.

We are 9-months in to a new government headed by Prime Minister Sir Kier Starmer, the first Labour Government since 2010. There is no doubt that these past 9-months have been challenging, faced by increasing uncertainty in geo-political spheres. We also face uncertainty on our own shores, with the planned disbanding of NHS England, the Leng Review and a review of postgraduate medical training.

Our editors, like yourselves, continue to watch attentively at the happenings that are so-often out of our control. No doubt we are at the beginning of a long road ahead. Regardless, the content on the pages that follow are reflective of the strength, passion and creativity that continues to flow through our health schools, irrespective of the challenges we continue to face.

As always, please get in touch if you would like to contribute to our fantastic journal. Everything you see has either been selected, written, designed, photographed etc by a student – or all the above. Our email is always open (gktgazette@kcl.ac.uk) to ideas and our team can help you flesh it out. Please do continue to contribute, come to our events and apply to join our committee when our window opens throughout the year. I hope to see many of your contributions in print in our subsequent issues.

Behind the scenes, we have welcomed new members to our committee and are continuing to grow interest from all corners of Guy's, King's and St Thomas' Hospitals. We recently hosted a Committee Picnic which was a great success. It was great to welcome members new and old and enjoy the sun before exam panic inevitably sets in.

Looking ahead, I will be returning to fourth year to start clinical medicine in August 2025, after an escapade digging around in archives and sitting whilst pondering in armchairs north-of-the-river. Intercalating has been incredibly rewarding and I wholeheartedly recommend it if you have the chance to do so.

Finally, I hope you enjoy this issue. I recommend grabbing a copy on campus, sitting on a bench at the Guy's Memorial Garden and basking in the sun (whilst wearing suncream).

Have a lovely Spring and Summer and best of luck for all your endeavours.

Dare Quam Accipere.

Yours,

*The Editor*

We welcome submissions from anybody affiliated with GKT to be published in subsequent issues (email us at gktgazette@kcl.ac.uk).

If you are a student and would like to join the Editorial Committee to be involved in crafting future editions, keep an eye out on our Instagram (@thegktgazette) regarding our recruitment rounds.

# Deputies' Digest

Deputy Editors - Noor Amir Khan **MBBS3**
and Naim Ghantous **MBBS2**

Dear Readers,

Much has changed since the last edition of the Gazette. Autumn's auburn shades ran cold in what was for many of us an achingly long winter, a winter whose frost has begun to thaw in the past month. Spring is truly here, marked for many of us by the Hodgkin's viridian belt blooming back into view from the campus courtyard where we can once again lie. With spring's arrival however comes the inevitable, as we again find ourselves staring solemnly down the barrel of May exams, and we sincerely hope this edition will grant you a moment of reprieve from the ceaseless onslaught.

Beyond the walls of GKT it always seems that an equally torrential maelstrom is brewing, with governmental and administrational paradigm shifts that feel far beyond our control. It is us who will soon feel the effects of these decisions, and it is perhaps more critical than ever that those of us at the frontline of healthcare and health education express resilience, passion and unity. As you flick through the pages, I hope that those qualities, which so richly run through our community, shine through.

Most importantly, please do take some time to reflect. At this point in the year so much has happened in our incalculably hectic lives since September that it becomes frighteningly easy for it all to spill through our fingers and become buried in favour of the next deadline or the next exam. Your experiences, relationships, learning opportunities, challenges and successes, both within and outside your working lives this year have invariably shaped you, whether you realise it or not. Yes, the road ahead may intimidate and unease us, but it is crucial to remember that we have all made it this far. Be proud of what you have achieved.

As always, we would like to thank the wonderful team here at the Gazette for their unwavering diligence and compassion, and for making sure that GKT voices are heard. We would also like to introduce several promising new committee members to the Gazette; whose contributions have and assuredly will continue to be instrumental to the high quality demonstrated on our pages.

Please do not hesitate to contact us if you would like to contribute to the journal, or whether you have any ideas or questions.

And with that, we hope you enjoy this issue!

Yours Sincerely,
Noor Amir Khan and Naim Ghantous
*Deputy Editors in Chief*

*If you would like to contact the editor, please email gktgazette@kcl.ac.uk*

# *Letters to the Gazette*

## Guy's Hospital Car Park

Dear Editor,

As a former Editor of Guy's Gazette (1968) I thought you may like to publish this photo I took when a medical student.
Some of the Consultants, most with private practices in addition to their NHS appointments, were by no means well off!

Emeritus Professor Colin Brown **FRCP**

## The Hume Kendall Educational Trust

Patrick Hume Kendall was a consultant in physical medicine at Guy's Hospital and the Evelina Children's Hospital. He died at the age of 42 and his consultant colleagues set up a trust in 1969 in order to support his children's education. The Hume Kendall Educational Trust continues to support financially the education of the sons and daughters of doctors and dentists. The Trust has supported a number of families who have found themselves in need of assistance for children at school or university, usually because a parent has died or is unable to work.

The Trust is restricted in its charitable purposes to supporting education and is limited to the children of doctors and dentists. The Trustees would be keen to hear of any such need that might be suitable for support. Applications can be made to the Honorary Secretary, Keith Jeremiah (kjeremiah36@hotmail.co.uk) or to the Chairman of the Trustees, Professor John Rees (john.rees@kcl.ac.uk)

John Rees
**Emeritus Professor of Medical Education**
King's College London

*Photo: Guy's Gazette Volume 110 No 2466 - July 1997*

# Features

*The Colonnade Guy's Hospital*

## Covers and Photos

*All photos are taken by our editorial committee or royalty free stock images unless otherwise stated.*

Our cover is a fantastic illustration by Christine Yue MBBS2. It depicts the challeneges faced by healthcare students on our "long road ahead". Lenny the Campus Cat is at the top. It is reminiscent of Nintendo's original Donkey Kong.

Our back cover is a similarly fantastic illustration by Rohan Chivali MBBS2. It depicts the players from the front cover.

# In Conversation with:

## the Editor of the GKT Gazette

Ananyaa Gupta **MBBS1**

Every time you walk on the steps into Hodgkin, you walk in the history and legacy that follows those steps, the (literal) indent of the footsteps of people who walked there". These are the words of Morgan Bailey, current editor in-chief of the GKT Gazette (involved since its revival in September 2022). Morgan turns from interviewer to interviewee to tell me his 'truth', crucial in the 21st century and age of disinformation.

The revival of the Gazette is inextricably tied to the challenges posed by the Covid-19 pandemic, which hit Morgan's cohort during their fresher year in 2021. His first term was a far cry from my own: no dissections, only one in-person lecture as an introduction to organelles, a Covid-restricted Christmas Boat Ball, a lack of community spirit, and MSA parents barely knowing each other. Unsurprisingly, Morgan felt frustrated by the palpable sense of apathy.
In 2022, Morgan, alongside his co-editor Arnav, played a central role in re-establishing the Gazette. But to call it merely a 'revival' would be misleading. The Gazette had not truly disappeared—it had simply been dormant, overtaken by shifting priorities and a disengaged student body. What Morgan and Arnav accomplished was far more than bringing back a student magazine. They restored a vital platform for discourse, creativity, and collective identity within GKT. Morgan's deep appreciation for history—perhaps unsurprising given his intercalation at UCL in History and Philosophy of Science and Medicine—and his drive to rebuild a sense of community, are evident in his words: "You only get medical school once in your life."

Whilst it is well known that the Gazette is 153-years old, the mission to 'revive' the Gazette in 2022 stemmed from a shared vision between two friends (himself and Arnav, who were co-editors from 2022 to September 2024) when they were in first and second year. They discovered archives of the world's oldest hospital magazine in the Gordon Museum, during their first semester as second years. The natural next step was to ask Mr Bill Edwards, the museum's curator, who informed them that it had not existed since 2019. Little did the budding co-editors know, the trustees had been looking (though without actively searching) for a new editor, after which a meeting followed and Arnav and Morgan were 'selected'.

Following their appointments as editors, there was a natural blossoming in their working relationship, with no need for a formal pact or agreement, instead relying upon their friendship and open communication. As it so-happened, Morgan took on the managerial and administrative aspects (his need for standardisation playing a role), while Arnav was more interested in

writing and editing. Morgan opined that some of the best work he read in the Gazette had been written by his fellow co-editor. In fact, Arnav taught him a lot, being straight to the point and very matter of fact. Discussing further about his co-editor role, Morgan informs me that he spent a lot of time finding email trails and login details to various Gazette online presences - an arduous task that proved to be unsustainable. Then came the long-term planning in multiple aspects such as fiscal, digital, projects, and is something he continues to do longitudinally. Together, the co-editors honed their communication skills, learned to compromise, and led with unwavering dedication—balancing writing, editing, and negotiation while building a team and a community.

Morgan says that his knowledge about Guy's "exploded" ever since he started at the Gazette, and has since given himself and Arnav immense pride in themselves and this institution. This they felt important and wanted to share with others.

Illustration by Zainab Abdur Rahman

Founded in 1872, the Gazette has survived mergers, wars, pandemics, and even a seven-year gap in the 1800s. What's the secret? Unlike other societies at King's, the Gazette isn't run by student elections—it's appointed by hospital staff, avoiding the pitfalls of yearly "popularity contests." Foundational to the Gazette's resilience and continued success is the "family feel" Morgan mentioned to me; some big names associated at GKT such as Prof. Challacombe, Prof. Lessof, and Prof. Sir Chantler (just to name a few) have returned to support the Gazette. Dr Sam Thenabadu, MBBS programme director, is a GKT graduate himself, returning as a trustee for the Gazette. I share this sentiment—my own discovery of the Gazette came via a LinkedIn post in sixth form, long before I received my offer to study at GKT.

I asked Morgan a question I believe every stakeholder of the Gazette will answer differently. How do you think the Gazette has contributed to the GKT identity? Sitting amidst the familiar buzz of Guy's Café, he explained that when GKT Medical School merged with King's in 1998 (and later absorbed the School of Biosciences in 2013), discontent was widespread. Throughout the beginning of this new era, the Gazette retained the passion of the GKT, publishing every few months, a passion Morgan himself exudes. GKT is no stranger to changes – UMDS and KCL merging in 1998 to form GKT – to almost losing our identity (having been named KCL medical school). Through these changes, the GKT Gazette (formerly the Guy's Gazette), continued to do the heavy lifting for the spirit at Guy's.

Amidst this transition, the Gazette has remained as one of the "heavy lifters" in maintaining the GKT identity, as Morgan (dramatically) laments about the "fall off" of some other societies, many of the medical ones being called 'KCL' societies, despite neither our teaching nor teachers being based at the Strand. My constant reuse of 'GKT' and not 'King's medicine' is purposeful, echoing the views of the co-editor who sat before me, and many others. Morgan asserts that it consists of a "totally unique group of individuals and collective identity, no other course/faculty does that" - do you agree? Regardless, Morgan does

make a point in saying that the GKT is a large contributor to KCL's global reputation, and pulls them up the rankings (if they matter to you). The name itself carries weight—made up of three of the world's best hospitals, with Guy's approaching its 300th anniversary in 2026. The names Thomas Hodgkin and Thomas Addison need no introduction, etched into the history and pride of the GKT. The same history and pride Morgan believes the Gazette embodies, empowering us as a group, compared to the institution of King's College London, which in his opinion, is run like a business.

Of the many highs and lows Morgan and the team have been through, the hiring process has always been difficult. At the beginning, disillusionment with the medical school within older years and an overall lack of awareness of the Gazette proved to be big obstacles. Adding to this was disinterest in the community, and a sense of resentment. Rebuilding the Gazette was not just about logistics and editorial oversight; it required a cultural shift, a reawakening of the student body's investment in its own institution. Perhaps part of the problem lies in the large cohort size, but in my perspective as a fresher, I can see that times have changed; we have a growing sense of community across the medical school, potentially in part due to the strengthening of the Gazette before we arrived.

The way out of their original problems? Asking people they knew (Sammer and Ella) to get involved in term 2 and have a goal in mind. Sami Lewis later joined sports as a proud Guy's student, helping to build the "product" that people came to know. Soon, they had an exponential amount of interest, and had to be very selective, via a mostly merit-based hiring process. In terms of team members having ownership, Morgan explained that after every issue, they do a reflection series. In essence, this manages problems with people being able to commit to the workload of the magazine, and it was Morgan's father who advised him to give people defined roles - giving people the same pride Morgan feels as editor. Once this was actioned, "things flowed from there".

His proudest moment so far? Those are plentiful. The Gazette's recent successes, including

Illustration by Zainab Abdur Rahman

winning The Medical Association's Blues & Shields Society of the Year in 2023, are indicative of its enduring relevance. It is more than just a student magazine; it is a platform that reflects the diversity and dynamism of the GKT community. Unlike other King's publications, whether the broadsheet 'ROAR,' the artistic Strand magazines, or the academically focused 'ScienceMind,' the Gazette bridges multiple disciplines, such as medics, dentists, nurses, and physiotherapists alike.

Its association with the British Library, Wellcome Collection and others further elevates its prestige- when you contribute to the Gazette, you put your name amongst some of the most talented people that have ever put pen to paper.

Looking ahead, the Gazette is here to stay. Getting individuals involved from the get-go and building our generation is the way forward to ensuring its sustainability. In the 1800s, there was a 7 year gap, and in 2012 the Gazette went offline. Perhaps due to luck, Morgan says, it managed to find its way back. What was happening during our time? What was happening in the GKT community 100 years ago? The Gazette has the answers, with news stories using articles as a historical primary source to navigate history, strongly emphasising the significance of student creativity at GKT, a student-led effort that Morgan says is surreal.
Preparing to pass the torch to the next generation of editors, his focus is on ensuring the Gazette's sustainability. A publication with such a rich history cannot rely solely on fleeting enthusiasm. Its future depends on forward planning—digitizing archives, streamlining operations, and fostering future leadership. The main task in Morgan's eyes is to look for candidates who can stick around and gain a leadership role, ultimately "upgrading" someone into his role as editor-in-chief. Noting that they do not always get the recruitment process right, he smiles and tells me he always reflects on whether he would have chosen himself in 2022. I feel that this level of humility seems to keep Morgan grounded and is something we can learn from; though no one is truly ever a 'finished product', and neither is the Gazette.

Contemplating Morgan's words, I remembered that he was on the other side of the interview for the first time. When asked who he would interview given no restriction, he said Professor Sir Cyril Chantler. For those who know their history, they will be familiar with the man after whom the Chantler SaIL centre is named after. A paediatrician by trade, and previously dean of the medical school, he was a key pioneer of the King's EMDP programme, he is someone Morgan believes he shares similar opinions with. Of these, a couple stood out to me. (about the EMDP programme) "it's not about lowering the standards, it's about getting up to the standards ... not just guideline monkeys". In the fast-paced nature of London life, it is easy to forget that we're all here for a reason, not just to tick competency boxes and sign offs from supervisors. The Gazette does an excellent job of representing people in the GKT community beyond these boxes, understanding what it means to be part of the GKT.

A GKT doctor, Morgan told me, is "compassionate, kind, knowledgeable, and skilful". They are not duds, they are expert diagnosticians, though in Morgan's eyes, medical training is encroaching on that. He very bluntly stated that the idea of physician associates are a "farce and fallacy". Having compassionate leaders is important, there are many managers who drag people down and he observes that there are too many "manager" personalities in leadership roles within medicine, a leader listens to their subordinates - there is not enough of that. We produce some of the best doctors in the country, and because it (GKT cohort) is so big, there is something for everyone. Morgan questions how much quality is in the program, after a lot of quality assurance became internal and in particular, the limited transparency within the medical school.

When asked whom he looks up to, Morgan gave a long list of names but made sure to mention

that there were "many others" to acknowledge but could not recall. Raising his eyebrows, Morgan muses that perhaps there isn't such a thing as a GKT doctor, with how "depersonalised and target-based" training is.

Remember, this interview is a fresher interviewing an intercalating student. Whether this is a compliment to our cohort or a criticism of the medical school, this discussion revealed that 1st years are more technologically literate and ahead of the curve than the medical school is lagging on. Most of the current faculty leadership were learning out of textbooks, whereas many readers would find this to be a rare occurrence. Worried at the standard of doctors, he says that learning is exam and factual recall focused, comparing the MLA and integrated learning with "gold standard" traditional programs with integrated teaching being the easier and cheaper option, until there's an incentive to change things in the medical school. The sheer size of the cohort means the place is "too big", likened to being in a "rat race". My view is that medicine has long been and will remain a 'rat race' as we compete with our peers at every hurdle to reach the aim we chant since our UCAS applications: patient-based care. The question Morgan feels is unanswered is how do we solve the problem of there being not enough medical school places, not enough jobs at the end, a lot of demand, a lot of IMGs, but not enough supply on our own soil?
If GKT students fail to engage with the history and identity of their institution, they risk losing a fundamental part of what makes their medical education unique. But if they choose to invest in the Gazette and what it represents, they will be preserving more than just a magazine—they will be safeguarding the very essence of GKT.

Being at the start of my medical school and Gazette journey, I thought it important to ask Morgan for a piece of advice he'd give his freshers self. Number 1 is "don't take advice from someone who you don't look up to." With a renewed enthusiasm, he tells me to "start early and stick around" and that people doubt their writing abilities, they "over doubt, are overly critical". Take it from me! I first pitched this article back in Freshers' Fortnight at the Gazette meet-and-greet. If you ever read an issue and feel that something interests you, write something. Your voice matters. There's strength in numbers—so share yours.

Morgan Bailey, Editor in Chief of the GKT Gazette turned *22* this January and is on a lifelong mission to learn something new every day. He enjoys music and plays piano, a keyboardist recently for the King's Musical Theatre Society's production of 9 to 5 the musical, UCL's Birds of Paradise and is a self-proclaimed Musical theatre fan (but not musical theatre kid, he insists). Jazz society and hockey are other outlets through which he meets great people and yet he found time to speak to me. With that, I thank Morgan for his time and hope that the reader finds his insights as important and inspiring as I did.


# Gazette Editorial Commitee Picnic 2025

On Saturday the 5th of April 2025, a quill of Gazette editors took to the Memorial Garden on Guy's to bask in the Spring sunshine. The weather was perfect for the occasion, eating food brought to share. The moment marked the meeting of faces both new and old; a mix of all years at Guy's, King's and St Thomas' Hospitals. We look forward to hosting an events calendar in the new academic year and to sharing the joy that is the Gazette with all of you soon.

***Back Row:*** Morgan Bailey (Intercal), Zaynah Khan (Intercal), Ruby Ramsay (MBBS2), Erato Markantoni (Intercal), Arnav Umranikar (Intercal), Charlotte Mulcahy (MBBS5).

***Front Row:*** Joshua Fakulujo (MBBS1), Sophia (Xu) Fang (MBBS3), Noor Amir Khan (MBBS3), Laura Snell (MBBS3), Ananyaa Gupta (MBBS1), Jade Bruce (MBBS5), Sammer Atta (MBBS4), Ellen Martin (Intercal).

# Stage 3 funding woes

## *How much money is actually available?*

Ellen Martin **iBSc in Sociology and Politics of Medicine**


*Photo from BMA Media Centre*

The BMA recently published their largest survey into medical student funding, and the results are unsurprisingly dire. There is a clear consensus among the medical student community that the financial support we receive, especially in NHS bursary funded years, is insufficient to cover our living costs (with 92% of respondents agreeing). They found that, on average, the drop in finance from SFE to NHS funded years was a whopping £3,674.

Many students, including myself, are dealt this surprise well into our studies; I mean, the reality wasn't exactly advertised in a timely fashion that financial support for my last 2 years at university would drop by almost £6,000 p/a (pictured right). In fact, King's doesn't even mention the NHS bursary on their webpage discussing fees and funding related to the MBBS course.

The Gazette has spoken about the costs of studying medicine multiple times since its resurrection 2 years ago, and the situation has only gotten worse. Tuition fees have increased by £285 p/a and the cost-of-living crisis wages on- with essential food prices having increased by 24-26% since 2022.

Focusing in on the stresses faced by those here at King's, it's worth noting in the last 2 years of the MBBS program students have precarious and unstable living situations, owing to placement rotations. Accommodation for students in periphery placements is (very unhelpfully) not guaranteed in consolidation weeks between blocks.

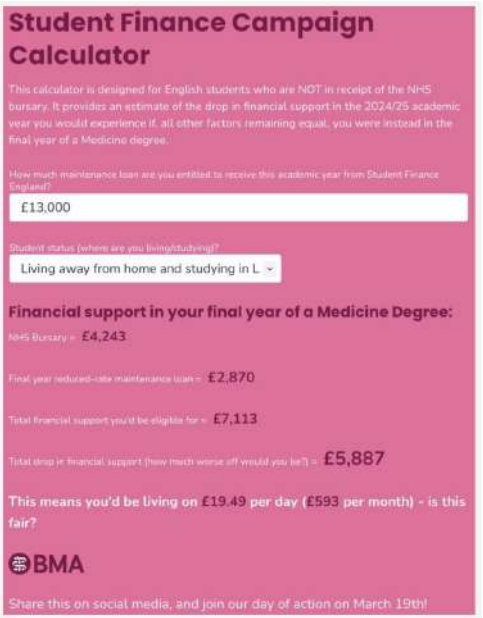
So, what are students supposed to do? Move out for a week and go where?

When probed for advice in the stage 3 Q+A earlier this year, Kai Lee + Fleur Cantle (@50.10) gave the following suggestions:

- If you can, move back into your family home
- Rent a short-term air BnB
- Stay with friends
- Rent a flat with friends for the year to have a base in London

Some of the suggestions offered are simply unfeasible for many students that live away from home. Even if you have the money and/or kind friends that will let you crash on their sofa for a week, moving 'house' approximately every 2-months is a labour-intensive process that often requires extra expenses in the form of transport, storage and physical assistance costs.

Fleur acknowledged that none of these solutions are ideal and that the situation is difficult. My question is however, if this is a long-standing and recognised difficulty for students, why haven't King's figured out some form of support for students during this period? They don't even have a web page explaining our funding options! (Queen Mary do, and it is very comprehensive).




It is already an unspoken truth that many of us must work through medical school, despite faculty recommendations that we should focus on studies during term time. With a destabilising and overtly demanding placement schedule, it is almost impossible for Stage 3 students to hold down a part-time job. That is, without great cost to one's physical and/or mental health, as well as their studies of course.

However, the reality is that those who live away from home or do not have someone supporting them financially, do not have a choice in the matter, they must work to live, pay rent, and continue their studies.

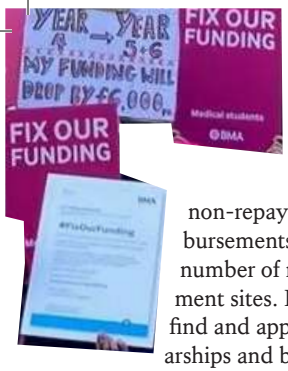
These factors, combined with the uncertainty intrinsic to them, makes for an incredibly stressful student experience- one that is almost impossible to plan ahead for. In an effort to reduce my stress and gain a better understanding of how much money I will actually receive in Stage 3, I did what was suggested by Kai Lee when asked about funding help and information... and talked to the student funding office.


Of course, I would have preferred to simply visit an informational web page and saved myself the journey to Strand campus, but without information readily available from King's, I felt I had to go to get my facts straight. I have arranged all the information I gathered regarding maintenance funding into a brief table below, with the hope that this helps reduce the uncertainty I most definitely feel approaching Stage 3.

Note: This is specific to NHS bursary funded years of study, for home students based in England, and accurate to the 24/25 awarded amounts. For further detailed funding information, or if you believe you may be eligible for additional funding allowances, I recommend visiting the Queen Mary website-which is linked alongside references for this article, available on request.

| **Funding avenue** | **How much can you get?** |
|---|---|
| Student finance reduced rate maintenance loan | **Non final year, away from home**: £3,749<br>**Non final year, living at home**: £2,004<br>**Final year, away from home:** £2,870<br>**Final year, living at home**: £1,520 |
| NHS grant<br>(non-income assessed) | £1,020 |
| NHS bursary<br>(**income assessed**) | **Living away from home (London uni)**: **MAX** £3,255<br>**Living at home (London uni)**: **MAX** £2,251 |
| Extra weeks allowance<br>(EWA ie. Extended NHS bursary, **income assessed**) | Payment per week of academic year EXCEEDING 30 weeks (if lasting 45 weeks or more, 22 weeks of Extra weeks allowance is paid out)<br>**Living away from home:** **MAX** £110 p/week<br>(y4 @ King's- 22 wks of EWA: **MAX** total £2,420)<br>(y5 @ King's- 11 wks of EWA: **MAX** total £1,210)<br>**Living at home:** **MAX** £57 p/week<br>(y4 @ King's- 22 wks of EWA: **MAX** total £1,254)<br>(y5 @ King's- 11 wks of EWA: **MAX** total £627) |
| KCL Medical and Dental Hardship fund<br>(**eligibility criteria** to be met, and **amount paid out decided by King's,** based on your finances) | **MAX** £3,500 or £5,000<br>(depending on whether you must pay your own fees*) |
| NHS bursary hardship fund<br>(must have applied to KCL hardship fund FIRST. **Amount awarded decided by NHS** based on your finances) | **MAX** £3,000 |

*This is how it is vaguely described on-line. Some further investigation is needed here...




All except the SFE reduced rate maintenance loan are non-repayable and note travel reimbursements are available for a select number of non-accommodated placement sites. I was also recommended to find and apply for various external scholarships and bursaries available to medical students- some of which are linked in the BMA's guide to medical student finance.

Hopefully this article can serve as a wake-up call for King's to better support their MBBS students in regard to fees and funding.

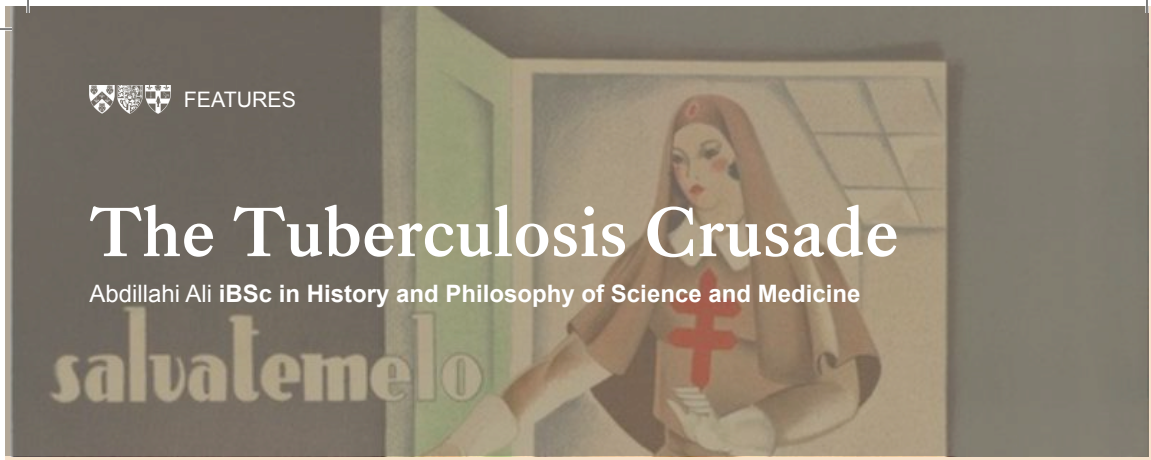
Aside from pushing our medical school to be better, you can get involved with the BMA and their #FixOurFunding campaign.

I recently marched with some of the BMA student committee on March 19th under this campaign, from Parliament to the Department of Education, where we delivered a letter to the secretary of state for education that reiterated demands to resolve medical student finance.

If you are keen to have your voice heard on this issue, you can visit the BMA's campaign website linked online and press your local MP using the BMA's 'MP writing tool'.

# The Tuberculosis Crusade

Abdillahi Ali **iBSc in History and Philosophy of Science and Medicine**




The story of tuberculosis might be understood as one of the great achievements of public health, but, particularly in the years before a cure was discovered, it was a disease deeply shaped and influenced by the social and political landscapes of the time. We can see this in the picture above, which shows a mother with her child begging a tuberculosis nurse to save her child. One thing to focus attention on here is the red double-barred cross that appears on the uniform of the tuberculosis nurse and in the corner of the poster. This symbol, also known as the Cross of Lorraine, was both the emblem of Geoffrey of Bouillon, a Frenchman who became ruler of Jerusalem in the First Crusade, as well as from 1902, representing anti-tuberculosis groups across the Western world (Knopf,1922). Additionally, many papers and articles about anti-tuberculosis campaigns from the period refer to their efforts as a crusade. This is particularly interesting as it comes at a time when there is an emphasis on secularity and objectivity within science, so it is worth asking how the language and symbolism of the crusades have come to become intertwined with anti-tuberculosis campaigns of the 20th century. To do this, we will take a brief look at the social context of public health responses at the time and then at how the crusades were perceived by those societies.

Barnes (1995) describes how social anxieties and stereotypes dictated the response to tuberculosis in France. In the 19th century, there was a strong fear of moral decline within the nation, so there was an emphasis on the moral components of disease. There was a perceived association of tuberculosis with alcoholism and syphilis, which were both heavily moralised conditions, and so similarly, there came to be an understanding that there was a moral component to the aetiology of tuberculosis. These symbols of the moral corruption of society became linked by tuberculosis, so by responding to it, there was the cover of medical legitimacy for correcting societal ills, which provided justification for policies such as the surveillance of prostitutes and cabarets. Similarly, other nations came to understand and deal with tuberculosis in terms of the social factors at the time. In the UK, there was a response based on conservatism and personal responsibility, and to return our focus back to fascist Italy, health was seen as integral to guaranteeing the future of the Italian “razza” (race), and so the focus there was on preventing tuberculosis spread among the youth population (Comelles et al., 2017). Regardless of the country there was this underlying belief that to eradicate TB was akin to saving the soul of the nation.

Alongside the social construction of a response to tuberculosis, there was a widespread revival of the idea that the crusades were a force for good in the 19th and early 20th centuries. With this, however, was the move towards a more metaphorical understanding of crusades, which allowed for the language of crusades to provide a certain level of legitimacy and high profile while establishing a distance from the overt religious and cultural context. We can see this in worldwide stamp issues at the time, which used

crusade imagery in a secular context as a fight against a societal enemy (Pymm, 2019). Therefore, perhaps because images of crusades were already being coopted in this way, it is unsurprising that we see descriptions of antituberculosis campaigns as crusades.

Crusade language and symbolism also allowed for the logic of wartime to come into practice in
tuberculosis management, particularly in terms of encroachment on civil liberties (Vallis & Inayatullah, 2016). One clear example of this is in tuberculosis sanatoria, which was the primary method of managing the spread of tuberculosis prior to the BCG vaccine and streptomycin. Sanatoria were spaces of exerting control over tuberculosis patients from how they dressed to how they ate and slept. These spaces were primarily for those of working-class backgrounds, as these were the groups who tended to live in the crowded and unhygienic conditions that aided the spread of tuberculosis (Hakosalo, 2023). So, as well as acting as a useful cultural cache, the crusades were helpful as a rationale that allowed for more political control over the poorer populations.

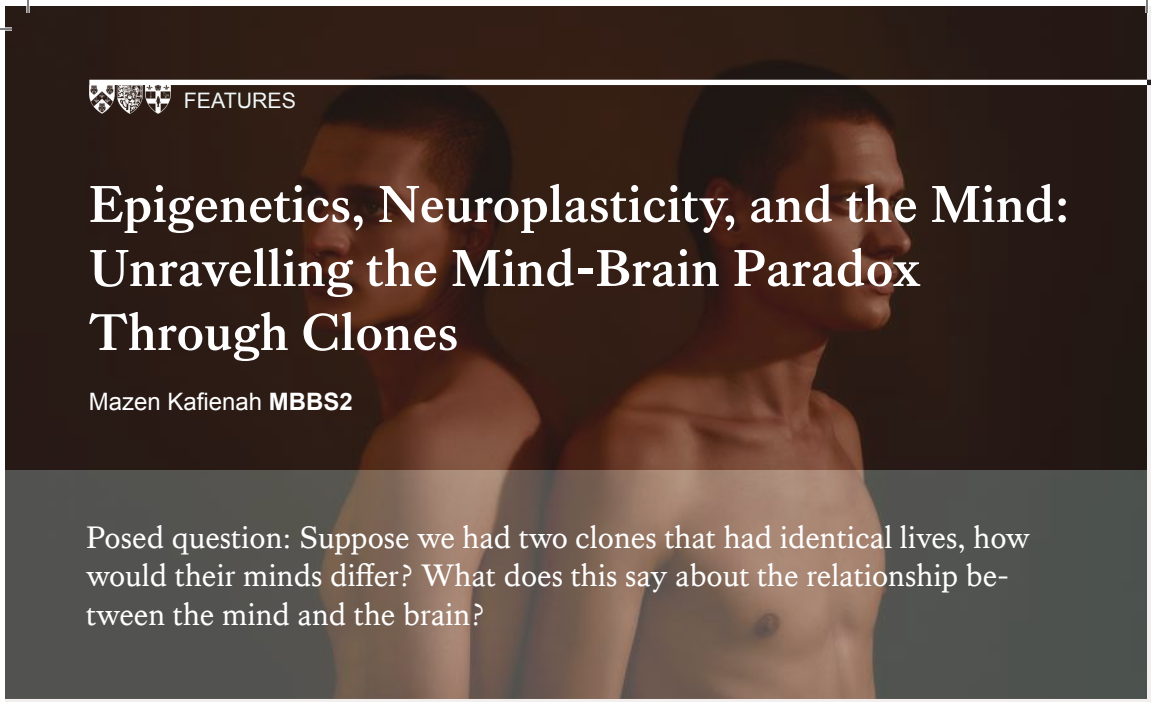
The fight against tuberculosis was a crusade primarily because the concept of crusades was vague enough that it could be moulded to whatever particular moral and social conceptions
that defined tuberculosis action in a respective country. The symbolism and language were familiar to people at the time, so governments and organisations could tap into those existing cultural references to promote health measures and national unity. Ultimately, crusades served not only as a way to bring attention to moral and nationalistic aspects of this mission but also as
a means of shaping the society of the time.

*References available on request at gktgazette@kcl.ac.uk*


Advertisement for the Day of the Flower and Double Cross, Italian National Fascist Federation for the fight against Tuberculosis, Easter 1932.
Image sourced from Wellcome Collection.

# Epigenetics, Neuroplasticity, and the Mind: Unravelling the Mind-Brain Paradox Through Clones

Mazen Kafienah **MBBS2**



Posed question: Suppose we had two clones that had identical lives, how would their minds differ? What does this say about the relationship between the mind and the brain?

Philosophy allows us to use hypothetical scenarios to consider complex propositions without restriction of empirical parameters. This scenario considers two clones. They are genetically identical and subjected to the exact same environmental conditions from conception. You must imagine each individual clone in equal environments, for example in the same home, same school, delivered in the same hospital by the same midwives. By experiencing indistinguishable life trajectories, and having identical genetic makeup, we can put forward two possible outcomes. In outcome one, both these clones respond to events in the exact same way: with the same emotion, decisions, cognitive thoughts, intuitions, judgments, and how these things are reflected in the physical realm. This suggests a direct match of mind and brain. In outcome two, there are disparities, however slight, which would suggest the existence of something different to a brain, a 'mind' causing these non- physical differences- a dualistic approach. In this essay I will pick apart outcome two and put forward two possible explanations.

By showing the dependence of the mind on its physical counterpart I am taking the non-conventional approach and arguing that 'mind' is in fact 'brain'. The first explanation takes a scientific approach and looks at epigenetic stochasticity, by which the disparities in these clones can be explained by the random and unpredictable nature of epigenetic processes - even among genetically identical individuals. It holds that if there were epigenetic differences within these clones there would be subtle differences in gene expression patterns within their neural network. This allows for neural divergence. The second counterargument uses reductionism involving the 'illusion of identity'. This puts forward the possibility that at first, the clones may seem indistinguishable at a superficial level of behaviours and personalities, but the neural pathways leading up to these similar outcomes are slightly different, leading to disparities in perception and quality of experience. Due to the brain's neuroplasticity, this would allow it to adapt and reinforce certain neural pathways, forming ramification for new ones.

## EPIGENETIC STOCHASTICITY

Put simply, epigenetics is 'a way of influencing how our genome is regulated without the DNA code itself being changed.' It involves modification processes of acetylation and methylation, adding epigenetic markers that turn a gene on or off. Defining these processes: 'DNA methylation is a chemical process that adds a methyl group to DNA'. This causes DNA to wrap more tightly around histones, making transcription factors less able to bind to their promoters, turning off that gene. Acetylation is when acetyl groups are added to lysine residues, neutralising their positive charge and thereby causing histones to drift away from DNA, which is negatively charged. The released structure facilitates access to transcriptional machinery- and this turns on a gene. The key thing is that these markers can be a response to external stimuli such as environmental factors. Logically one may think this means our clones will develop the same markers as they have been subjected to the exact same environmental conditions. Interestingly, the appearance of these markers is random and unpredictable, such that by random chance, one clone may develop a marker and the other not. In this context, the stochastic nature of these markers would manifest as subtle differences in gene expression. Clone one may experience heightened sensitivity to a particular event due to the presence of a marker absent in clone two. This may be the starting point of developing new neuronal connections leading to new thoughts and ideas which may in turn alter the neuronal framework of clone one and cause the experience of perception different to clone two. With enough divergence this could be reflected in changes in their actions, ultimately causing different ideals, morals and qualia. These changes may be subtle at first, and initially may not be expressed in the physical realm until enough divergence has occurred. Qualia for instance described as individual, subjective experiences of perception and sensation, so whilst one clone may see the sky as blue, and hence refreshing, the other may perceive this blue as a slightly different shade, opening doors to new perceptions. These clones are genetically identical and continue to be subject to the same environment - but they are different. It all comes down to the random chance of epigenetics which has allowed this sense of identity to emerge. As philosophers we must explore the premise of what it means to have no influence of the epigenetic changes that dictate our identity, perception and deeper lives. Could cracking the stochastic nature of epigenetics be the key to the rendition of fate?

## ILLUSION OF IDENTITY

In outcome two we agree that any differences in these clones would hint at the existence of a 'mind' beyond mere neural activity of the brain. Before we begin this section, let us assume there is a mind, and that this mind is responsible for a much broader range of cognitive functions than the brain. That encompasses thoughts, intuitions, consciousness; things outside of sensory information. Now assume that there are in fact differences in these characteristics of the mind but as an external observer, we don't recognise them and instead perceive them as indistinguishable individuals. This would indicate that there is a mind separate to the brain. However, I feel this approach neglects the complexity of the brain and may provide an illusion that the minds of our clones are different. Instead, the brain has taken different pathways to reach the same outcome. Imagine both clones are posed with the bad news, for example finding out they have failed an exam. In both instances the physical response may be the same; but their brains will undergo unique experiences and sensitivity to certain memories or thoughts. This is due to the inherent complexity

of the brain's neural pathways which may appear as distinct minds. It is possible that through each unique pathway, the brain exercises its neuroplasticity to reinforce certain pathways that contribute to the broader characteristics of the alleged mind. Neuroplasticity is an umbrella term that describes 'brain's ability to change, reorganise, or grow neural networks due to experience.' The subjective experience of each clone will impact the response of the brain to particular situations which will be apparent in the different behaviours and mental states of the clones. Neuroplasticity suggests a bridge between mind and brain, reinforcing the notion that the "mind" is not a separate, metaphysical entity but rather the result of physical processes within the brain itself. The dynamics of the mind emerge from the physical brain and holds a strong relationship that reduces the mind-brain paradox to a combination of chance, biology and neuroplasticity. We must ask ourselves how much of our individuality is reliant on each of these factors.

In both of my points I notice a common theme of random chance or stochasticity. By using clones in similar environments in this hypothetical we eliminate all other factors that may alter their trajectories. It is completely random which clone gets which marker, and which pathway their brain will take to reach an outcome. In both, however, this initial deviation catalyses the brains' ability to produce entirely new outcomes. Some may say this argument attributes the emergent mind to 'potluck', but this is dangerous as it implies the mind is merely a product of chance, undermining the depth of human conscience. Perhaps embedded behind this randomness lies the true mind, a delicate dance between stochasticity and science, between mind and brain, between individuality and free will. To reduce our identities to "potluck" is like reducing each human down to a cog of a machine that is society.

*References available on request at gktgazette@kcl.ac.uk*

# Periods in Plain Sight:
## Ending Stigma in Healthcare Spaces

Megan Cheadle **MBBS2**

PERIOD POVERTY - the lack of access to menstrual products, hygiene facilities, and education - remains a significant public health issue. Driven by stigma, high costs, and inadequate sanitation, it puts individuals at greater risk of bacterial infections while also affecting their education, social opportunities, and mental well-being.

In 2023, 21% of women and people who menstruate in the UK- equating to 2.8 million individuals- struggled to afford period products (ActionAid UK). Faced with financial hardship, some are forced to use products for longer than recommended or rely on alternatives such as cotton wool, newspaper, socks, or tissues. Others may attempt to suppress their cycles with medication or by skipping meals, putting their health at serious risk. When forced to prioritise food, gas, and electricity over menstrual products, period care becomes an unaffordable luxury rather than the necessity that it is.

In Lewisham, where the poverty rate was 29% in 2022/23, the impact of period poverty is particularly concerning. As part of our second-year GP placement in Lewisham, we initiated a Period Poverty Project, providing free menstrual products - including pads, tampons, and liners - to all patients in the practice. Alongside these, we have created educational materials on menstrual health, available for anyone to take. This project is about more than just access - it is about normalising conversations around periods and challenging the stigma that surrounds them.

Menstrual stigma forces many individuals into seclusion and silence, making them feel reluctant and ashamed to have open discussions about their menstrual health. This culture of secrecy leads to widespread misconceptions, allowing misinformation about periods to persist unchallenged. In a deliberate step to normalise menstruation, we have placed the period products openly in the practice waiting room, rather than hiding them away. We refuse to allow menstruation to be excluded from conversation – instead, we encourage open discourse about a topic often neglected in public health discussions. Visibility fosters conversation, and conversation leads to education, advocacy, and policy change.

Through our educational leaflets, we aim to enhance menstrual health literacy, equipping individuals with the knowledge needed to navigate their own health. The more informed people are, the less vulnerable they become to the shame and misinformation that menstrual taboos perpetuate.

Understanding what is normal and recognising potential abnormalities in menstrual health is crucial - without this knowledge, individuals may overlook key symptoms, putting their health at risk. Equally, it is vital that healthcare professionals educate themselves on the gender disparities in medical research. Conditions such as endometriosis and PCOS remain under-researched, frequently misdiagnosed, and often dismissed, leaving many to suffer unnecessarily.

By normalising conversations about menstruation, we create a healthcare environment where education is more effective, symptoms are recognised and taken seriously, and menstrual health receives the attention it deserves—ultimately improving diagnosis, treatment, and advocacy.

# A Lifetime Of Pathological Chance And Opportunity: Part 2

*This article is a continuation from Part 1, originally in GKT Gazette Issue 2, Volume 133 (September 2023). Available at kcl.ac.uk/lsm/gazette*

Sebastian Lucas was appointed Professor of Clinical Histopathology at United Medical & Dental Schools of Guy's & St Thomas' in 1995. He semi-retired in 2012, fully in 2022, but continues teaching pathology to remind everyone of its importance in modern Medicine.

I started pathology work in a department (at UCH) where, oddly, it was assumed that most aspiring pathologists would wish to become professors and chair a laboratory department. It might seem inevitable that I would get there sooner or later – not so simple. My first (unsuccessful) attempt at becoming a professor was at Liverpool medical school in 1993. The suggestion to apply came from my UCH professor and was particularly encouraged by the Liverpool School of Tropical Medicine staff who wanted their man (i.e. someone with an interest in infectious diseases) in the main pathology department.

I was up against a cancer pathologist whose CV was a better fit for the role. Naturally, my vanity was affronted, but within a couple of weeks I realised what a lucky escape I had: I would not have to pretend to be interested in cancer pathology research, plus the classical music scene in London is much broader and deeper than in Liverpool. And – this is in retrospect – I did not have to try and manage the toxic Liverpool arm of the "organ-retention scandal". The scandal hit British pathology hard in the early 2000s, and the paediatric pathologist at Liverpool's Alder Hay children's hospital was deeply involved and hounded and criticised nationally.

Come 1995, the pathology chair at Guy's & St Thomas' became vacant. Historically, two independent separate medical schools and hospitals, the medical schools united in 1982, followed by the hospitals in 1993. There were still two separate chairs of pathology when, in 1993, the St Thomas' incumbent departed for Dundee. The professor at Guy's was informed that he was now the chair of the combined pathology department. Taking a hard look at the staff at the St Thomas' site he also left rapidly for Dundee.

Of the four candidates for the joint chair at the United Medical & Dental Schools of Guy's and St Thomas' (UMDS), the obvious choice should have been the personal professorial chair holder at St Thomas', a nationally regarded cancer pathologist and expert in sarcomas. However, he had already failed at least once in trying to reach this position, mainly because of interpersonal antipathies with the senior pathological administration at St Thomas' – and to my surprise I was offered it. The only question at the interview that I can remember was: 'Which hospital [Guy's or St Thomas'] do you think is the more important?' My answer was that as an outsider I did not particularly care; my rival presumably said 'St Thomas', and he soon took up an offer from a leading USA pathology department, where he has had the most distinguished career as one of the world's leading diagnostic pathologists. Our loss indeed.

Arriving a few months later, I felt at a loss

of what to do next and was daunted by the challenges presented by two physically separate departments (St Thomas' much bigger than that at Guy's). The hospitals had separate consultant and trainee staff, and with everyone complaining and unhappy, it seemed sensible to merge the departments properly and concentrate on St Thomas'. I should have realised that people do not like mergers. I had already experienced this after the forced merger of UCH and Middlesex Hospitals while at UCH in the 1980s. After several years of split site departments (and I was posted to the Middlesex site for two years, as the working spy for the UCH professor), all the staff were brought together at UCH (in the old medical school building). When the dust settled, all but one of the original Middlesex pathologist staff had departed.

And so it was, at Guy's and St Thomas' Hospitals. I was already startled to discover senior consultants across the two sites and several specialities who refused to admit that the other hospital existed. That generation of doctors has long departed, and now one would not know that such divisions across the modern NHS Foundation Trust ever generated such rancour. Only one of the four Guy's consultant pathologists came over to St Thomas' willingly. Of the others, one retired with dementia, and the other two eventually sought positions elsewhere, never forgiving me for disrupting their long-established work patterns, causing much turmoil and difficulty.

Above all, I realised that I had no managerial experience or skills and was temperamentally unsuited to administer a large department. The Trust did not – at that point – help much by making me the lead for all the Pathology Departments (i.e. microbiology, haematology, immunology, chemical pathology, as well as cellular pathology). All I really wanted to do was see as much pathology as possible – dead and alive – in my specific field of interest, infectious diseases. I wanted to learn more about HIV, and how to identify unusual and difficult infections in tissue samples. And so, I ruefully pondered on how a big hospital could appoint someone to a substantive responsible departmental chair without first enquiring whether he or she was mentally and technically equipped to run it. For this and other reasons, I never contemplated entering the RCPath nexus with the aim of becoming President one day.

For example, our part-time paediatric pathologist, who mainly examined stillbirths and neonates, informed me that, having been off work for a week with flu, s/he could not come to work the following week because the nanny now had flu. How do you handle this – bodies now accumulating in the mortuary? I did not know.

What I actually did to further my professional (i.e. not managerial) career, enjoy pathology, and contribute to our knowledge about many diseases, I will illustrate in another article later. But it almost came to the point where I would have left the medical school and Trust if only I could have left without the shame of failure. I wondered whether I could initiate another full-time overseas pathology research project – like the 1991 HIV work in Cote d'Ivoire. Perhaps a study of maternal mortality in a small African country?

Two things turned it all round. First, the hospital realised there were problems in pathology, with staff leaving, yet diagnostic tissue pathology was and is absolutely central to a hospital's functioning. So, we made a collective presentation to the Trust medical director on the need to augment the funding of the department, to get more consultant posts, to upgrade its facilities – particularly the large seminar room – and to support better management. This worked, along with one of the recent consultant appointees offering to become the departmental manager, at which post he was and remains highly effective, as well as being an excellent pathologist. Thereon, from mid-2002, the Trust Dept of Cellular Pathology expanded and became one of the leading departments in the country. Having been moved sort-of sideways within the department, my role become that of spiritual leader

St Thomas' cellular pathology seminar room: MDT meeting in progress, a far technological advance on the 1976 original with its single transparency projector, X-ray box, and projecting microscope that beamed to a rickety white screen.


Guy's and St Thomas' Hospitals: it is hard to recall now that in the early 1990s, the Secretary of State for Health wanted one or other of these two great hospitals to be closed down. shock.

Departmental staff photograph 1997, taken at St Thomas': SBL looking perplexed, and not realising that some of the senior staff were planning to leave.

Gordon Museum: part of the specimen collection – Gestation. An old specimen – this would not be possible to obtain and show nowadays – demonstrating abruption of the placenta and consequent fetal death.

and mentor, advertising the work we were doing (especially in infectious diseases and autopsy practice – which I led). I ensured the department operated collegiately and openly: no silo mentality, instead much sharing of diagnostic problems and providing maximal support to our clinical colleagues through clinico-pathological meetings on live biopsy diagnoses and numerous post-mortem joint conferences.

The second lifesaver was the teaching of medical students. In the mid-1990s, the school had lost its 6-week teaching block course of pathology followed by our own examination. The GMC did not like such old-fashioned teaching methods, and for a while pathology education deteriorated. But with colleagues across the specialties, we pushed back, and when the nominal head of Year 3 teaching (a psychiatrist) was absent at a crucial board meeting, we reinstated a modified block course, supported by many clinical colleagues. What has happened to that course since I retired from the chair in 2012, I do not know.

The Gordon Museum at Guy's is part of pathology education, and I was nominally its Curator – but of course, the real power lies with the museum's manager (Bill Edwards) and his staff. I hope that using the museum as a multi-purpose learning centre still engages the students via all the pathology specimens on the shelves. I particularly advocate a look at the reproduction section, with illustrative autopsy specimens that for ethical and cultural reasons would now be unobtainable in practice. I initiated a section on HIV/AIDS, with specimen pots of some of the classic syndromes that we saw before the introduction of anti-HIV therapies.

I'll share one final memory of the uneasy relationships between management, medical school and hospital. In the mid-2000s, the department at St Thomas' had the opportunity to re-arrange its many rooms and assets. The Guy's Gordon Museum had become the main pathology teaching centre. Therefore, the large on-site pathology museum was no longer needed and could be divided up to make a departmental tea/rest room, a multi-header microscope room and library, plus a smaller room for trainees. As the professor of a medical school department, I believed that I had some ownership over this school property – or did it belong to the hospital in which it was located?

At the same time, the hospital needed an improved seminar room with modern image projectors for pathology and radiology, to support the increased demand for diagnostic multi-disciplinary meetings and, at last, replace the sticky carpet that had been there since 1976. Much Trust money would be provided for that, and with a large contribution from my slush fund (derived from coronial autopsy fees), plus some money from the medical school, I approached the builder that St Thomas' had used for years in its renovations. Plans were drawn up and the work started. Ceilings came down, old carpets were ripped up, stud walls created, and new electrics installed.

About half-way through, the medical school estate people visited and asked whether I had ever put these plans through the appropriate planning systems. No: should I have? After an embarrassing ticking off by management, sitting in one of the partially wrecked rooms, it was agreed that since work had progressed thus far, it would be pointless to call the whole project off. Message: once the ceilings have come down,

the point of no return has been reached, so be bold and get active! Though I doubt one could get away with that now.

*UMDS was subsequently absorbed into King's College London on 1 August 1998, and was initially called the GKT School of Medicine; in 2005 this in turn became the King's College London School of Medicine and Dentistry. Subsequently the dental school became the Dental Institute and the remainder was renamed the King's College London School of Medicine. In 2015 the naming decision was partially reversed and the medical school is currently named King's College London GKT School of Medical Education.*

# Global Brigades

Georgia Maddy-Powell **MBBS4**

## What are Global Brigades and What Do They Do?

**Global Brigades (GB)** is an international, non-profit organisation that empowers communities in under-resourced regions through sustainable development projects. With a mission to improve health, economic, and environmental conditions, Global Brigades operates through various programs, including medical, dental, water, business, and legal initiatives. Students from universities across the globe collaborate with local professionals to create lasting change while gaining valuable hands-on experience. They work with communities in Panama, Nicaragua, Honduras, Ghana and Greece. In 2023, Global Brigades UK raised over $100,000 to fund numerous brigades worldwide.

GB focuses on running sustainable projects to ensure empowerment and long-lasting changes through its medical, legal and water sanitation brigades. Brigades from universities around the world take place monthly, ensuring communities receive regular support to grow sustainably so that one day they no longer need the help of GB.

Clinic in Ebuakwa

Clinic in Srafa Kokodo

Celebrations in Ebuakwa

## Our experience in Ghana

King's College London's Global Brigades Society run brigades every year. Last June, I was lucky enough to go to Ghana to complete a medical brigade with 14 other volunteers.

Brigades are usually a week-long and are fully funded by the volunteers.

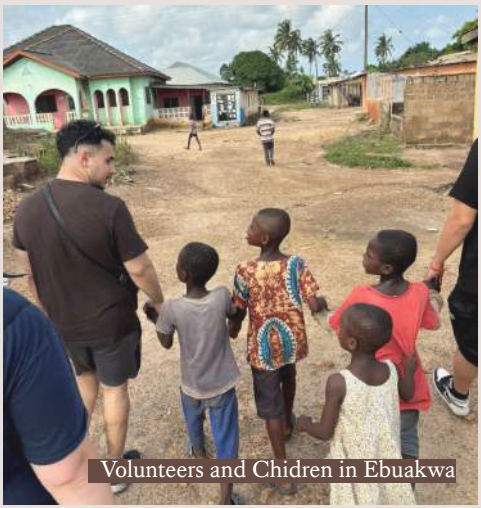
Fundraising played a crucial role in making our trip possible. Our society organised multiple events throughout the year to support travel costs, medical supplies, and project implementation. Each volunteer has a donation goal which allows GB to employ local medical professionals, such as doctors and pharmacists to accompany us on our brigade. Donations also fund medication, medical equipment, and pay for 1 year of medical insurance for local children.

We flew to the capital of Ghana, Accra where we were met with the co-ordinator of our brigade, John. During our time in Ghana, we were accommodated in a lodge provided by Global Brigades. Our Lodge was in Anomabo, around a 3 and a half-hour drive from Accra. The organisation ensured that we had safe lodging, transportation to and from the communities, and essential resources to run the clinics effectively. This support allowed us to focus on providing medical aid without logistical concerns.

Whilst in Ghana, we set up two clinics in two different communities:

**Ebuakwa** – A farming community of around 1,000 people, where the local clinic was staffed by only two nurses who were responsible for over 2,000 patients. With our clinic, we were able to bring doctors and pharmacists to assist in treating the community.

**Srafa Kokodo** – A remote fishing village with approximately 3,000 residents. Due to its location, not all residents could access our clinic, so we conducted home visits to reach immobile patients. This was one of the most rewarding experiences, as we not only provided much needed medical care, but we also got to visit the local school and watched as the children were learning English.



Volunteers and Chidren in Ebuakwa

Over the course of 4 clinic days, we saw 753 patients.

In each community we would set up a 'clinic'. This involved several different stations: registration, triage, consultation, pharmacy, optometry and charla. In Registration, patients could self-register for an appointment at the clinic and also renew their health insurance for the year on-site, something which they usually would have to travel hours to do.

In triage, we worked with interpreters to take

KCL GB Volunteers in Ebuakwa

basic observations such as blood pressure, weight, pulse and then a brief history of the presenting compliant.

In the consultation, we shadowed the doctor's while they took a history, examined, diagnosed and prescribed medication for each patient or referred them to optometry.

In pharmacy, we packaged each of the patients' prescriptions along with a basic health care package which included toothbrushes, toothpaste, sanitary products and condoms.

In optometry, we shadowed the ophthalmologist who would test the patient's eyesight and prescribe them glasses or refer them for secondary care.

Our final station was 'Charla', in which we divided into small groups and were assigned a public health topic to present to the patients waiting for their appointments. The topics ranged from exercise to oral hygiene. We created colourful and engaging posters to help illustrate the topic and worked with the translators to get the message across.

One striking difference between healthcare in Ghana and the UK was the lack of ambulance services. In emergencies, residents must arrange their own transport to the nearest hospital, often by taxi or private vehicles, something I feel we often take for granted here in the UK.

A case that particularly stuck with me was a 25-year-old woman who had lost her sight due to uncontrolled diabetes. Seeing someone just a few years older than myself in such a devastating situation was a stark reminder of the healthcare disparities between Ghana and the UK. If she had access to early diagnosis and treatment, her blindness could have been prevented.


School in Srafa Kokodo

## Highlights of the Brigade

This year's Brigade was a truly unforgettable experience. I am incredibly grateful to the Global Brigades team, all the volunteers, and the doctors who made it happen. Ghana was a brand-new country for me, and it was my first time experiencing another nation's healthcare system first-hand.

One of the most memorable moments was in Ebuakwa, where the community welcomed us warmly. The local chiefs and elders granted our leader, Nazim, an honorary chief title and after our second clinic day, the entire community came together in celebration with music and dancing—a definite highlight of the trip.

Another highlight for me was the 'Cultural day' that the Global Brigades Team organised for us. A local music & dance group called Afodat, came to the Lodge to perform for us and then we all got to learn a dance and try playing the different instruments.

The Brigade was an incredible experience, and as a committee member this year I'm eager to raise more awareness and encourage students to volunteer for this amazing charity.

*If you would like more information, please visit the website: https://www.globalbrigades.org*

*If you are interested in joining KCL Global Brigades Society, please get in touch on our Instagram* ***@kclglobalbrigades***

# Periods and surgery: setting the record straight

Joanna Grabowska **MBBS3**

It was just a regular day on the wards. Prior to starting the ward round, the nurse practitioner and I headed to assess a patient who was awaiting surgery – an elective pleurectomy for recurrent spontaneous pneumothoraxes. She was a young, well-kempt woman, clearly a little anxious but composed. We went ahead with the assessment, took some pre-operative bloods and did a quick respiratory examination. All was going well, and the nurse walked the patient through what was going to happen that day – how she would have to take off her clothes and underwear and put on the hospital gown.

And then the patient uttered the faithful words that would alter the course of that day completely...

"I'm on my period, is that going to be a problem?"

Not to worry, the nurse said. She might have to take out the moon cup she was using, the hospital will provide a pad – but we will check with the surgeon. And so, the nurse left, leaving me and the patient to chat.

Shortly after the registrar came by and broke the news. Due to the patient's "current state" the surgeon felt it would be inappropriate to operate that day, as the risk of excessive blood loss would be too high. They would discharge her and bring her back at a later, as of then unspecified, date.

The patient was stunned. I was stunned. Moreso, the nurse, a very experienced clinician who has worked with surgical patients for years, was stunned. None of us have ever heard of menstruation being a contraindication for this, or in fact most, surgeries. But then again – none of us are surgeons. So maybe they were right?

In short – no. There seems to be a belief amongst surgeons that in cases of elective surgery, the procedure should be postponed if the patient is menstruating (1). This has been attributed to a variety of different factors – from the compromise of hygienic conditions (2), through to increased incidence of pain and nausea post-surgically and the functional impairment of the coagulation system, which was theorized to lead to excessive blood loss during surgery.

Putting the hygiene concerns aside (seriously?) let us focus on perhaps the most significant concern: influence of menstruation on blood loss. This can be viewed two-fold – firstly, the impairment of coagulation in menstruating females could lead to higher volumes of blood loss during procedures. Secondly, the additional blood loss during menstruation can contribute to higher risk of post-operative anaemia and shock.

The first question that needs to be answered is whether there is any variation in haemostatic function in females depending on the phase of their cycle. The data on the subject is somewhat conflicted. In a systematic review, Knol et al. (3) concluded that majority of studies showed no significant variation in coagulation cascade elements throughout the cycle; they did however note if there was any difference, the lowest levels were measured in the menstrual phase. If that was indeed the case, this would give some credence to the claim, that menstruation could impair haemostasis and thus lead to more blood loss because of surgery. To draw final conclusions, however, more studies using larger sample sizes will be needed.

Regardless of the underlying physiological mechanism, we have been performing surgeries on females for hundreds of years and should, therefore, be able to empirically determine, whether the phase of the menstrual cycle plays any role in the amount of blood lost during surgery. And indeed, such data is available in literature for a variety of surgeries. In a study evaluating blood loss in patients undergoing open heart surgery there was no significant difference between menstruating and non-menstruating patients (2). Similarly, no statistically significant difference in blood loss in relation to the phase of the cycle was found in patients undergoing abdominoplasty (4) and vitreoretinal surgery (5). When comparing blood loss between male and female patients, Hjortdal et al. (6) found so significant difference, moreover, there have been studies that point to a higher bleeding volume, both intra-operatively and post-operatively in males as compared to females (7). While these studies have not controlled for menstruation, it seems that there is an astounding lack of data pointing to a higher rate of post-surgical complications in menstruating females.

That is not to say that menstruation, or the menstrual cycle at large, is always irrelevant, especially where it concerns hormone-sensitive tissues, such as the breast. For example, in breast reduction surgery it has been shown that perioperative blood loss can be significantly reduced if the procedure is performed during the periovulatory phase (4). It is not however the rule, that all hormone-sensitive tissue operations should be avoided during menstruation. Blood loss during rhinoplasty, a procedure involving the nasal mucosa (another hormone sensitive tissue), is highest during the periovulatory phase, making it preferable to operate during menstruation (8). When assessing retrospective hysterectomy data, Baron et al. (9) found no difference in bleeding, or indeed the rate of any complications, in relation to the phase of the menstrual cycle. Even in these cases, there is no one-size-fits-all solution and thus considering menstruation as a blanket contraindication for any surgical procedure seems to be inappropriate.

The second reason often cited is that menstruation leads to higher rates of nausea and post-operative pain, making it more difficult for clini-

cians to spot complications (1). Here again the reports are mixed. Different studies have found that vomiting is more common before, during and after menstruation, hence no clear conclusion can be drawn (10). Equally, pain perception seems not to vary significantly depending on the menstrual cycle phase, with no significant difference in analgesic requirements post-operatively (11). Making any recommendations based on the available data would be premature.

While not overwhelmingly prevalent, cancellation of surgical procedures due to menstruating female patient is still a wide-spread practice (2). In one study, Solak et al. found that almost 15% of same-day cancelled elective procedures on female patients in a Sarajevo hospital were cancelled due to "cancellation by surgeon" – mostly due to the patient menstruating (12). Yu et al. in their retrospective study noted that women suffer much higher rates of same-day cancellations, which can be largely attributed to menstruation (13).

Same-day cancellations of surgery carry a significant burden to both the patient and the hospital. From the patient perspective, undergoing a procedure can involve reorganising one's whole life, arranging for additional support and time off work, stress associated with surgical risks and fear of pain and discomfort. All of that must be repeated, often-times incurring extra costs due to travel and work arrangements. Not to mention the emotional stress and confusion at the sudden decision to postpone the surgery. The hospitals suffer from inefficient use of staff time, impaired staff morale and extra costs. It is evident that these incidents should be avoided.

We must be clear in our communication with patients. If menstruation is indeed a contraindication for the procedure they are undergoing, let us work with them to avoid it. By scheduling the procedure in cooperation with the patient or prescribing medication that can delay menstruation, we can avoid the disruption these sudden cancellations cause. But first and foremost, let's look at the evidence – something we should be basing our practice on. There is little, if any, data indicating we should avoid routine procedures in menstruating females. There is no mention of it in surgical guidance or patient information leaflets. It seems that this tendency to fear menstruating females, truly medieval in nature, is not based in science but in superstition, contributing to the health burden already affecting women disproportionately.

And finally, let's stop being ashamed of the word 'period'. Through our entire interaction, the (I'm sure well meaning) registrar only ever referred to the patient's 'state'. Period is not a dirty word – it is a natural part of the female experience. If we do not talk about it, we will only strengthen the ever-present stigma associated with menstruation, which, I am sure of it, has contributed to the rise of the myth, that menstruating females should not undergo surgery.

After all, nothing that's human is alien.

*References available on request at gktgazette@kcl.ac.uk*

# GKT School of Medical Education Faculty Update

Professor James Galloway **GKT MBBS Senior Director**

The last academic year has been a busy one, both within King's and across the wider world. We have seen events that have moved and challenged many of us. At times like these, being part of a profession like medicine feels especially meaningful. Our commitment to science, research and evidence-based care gives us a shared purpose: to look after people, to heal, and to stand together when it matters most.

2024 to 2025 has been a year of change and progress for medical education. The most significant development has been the launch of the national licensing exams. For the first time, students across the UK, including here at King's, will graduate with a national qualification based on the Medical Licensing Assessment. At King's, we ran the MLA in January. The written exams went smoothly, and we were particularly pleased to hear that the progress tests many of you sat in earlier years matched well with the national exam in both style and breadth. That is exactly what we have been working toward, and we will keep developing that model from Year 2 onward.

The OSCE has also changed, now rebranded as the CPSA (GMC's Clinical and Professional Skills Assessment) and delivered in a single sitting of 16 stations across two days. The exams ran well, but what really stood out was the quality of performance. I saw excellent clinical communication and examination skills that would be impressive at postgraduate level. To those in final year, you set the bar high!

A smaller change, but one that matters, is that you asked for faster results and clearer timings. This year we made that a priority. Results now come out more promptly, with confirmed release dates you can rely on.

Beyond assessments, we have focused on teaching and support. Shivani Patel has taken on the role of prescribing lead, and many of you have already benefited from her excellent teaching. Dr Elena Nikiphorou has led a wider academic support programme, recognising how personal circumstances and pressures such as the cost of living can affect study. A real highlight was the Year 5 exam preparation programme over the Christmas break, which we plan to continue and build upon.

This year also saw the successful launch of our Portsmouth branch campus. Our graduate entry students are now fully enrolled on the King's MBBS programme, delivered from the University of Portsmouth under the leadership of Professor Russell Hearn. They have made a great start, and they are very much part of our community.

We have also made improvements to Keats (King's E-Learning and Teaching Service), including better layout and navigation. If you have not already, do explore the MBBS careers section. The Inspire and Aspire lecture series, led by Dr Richard Russell, has featured brilliant speakers including Professors Alexandra Santos, Mona Bafadhel and Albert Ferro, showcasing the strength of academic medicine at King's.

On a personal note, it is a privilege to have been appointed as Senior Director, and I look forward to working alongside a fantastic senior leadership team, supporting your journey into medicine. I remain proud to be part of your community at King's.

James

# Through Covid Tinted Glass

Khushi Patel **MBBS3**

**2020.** This momentous year marks the moment our world was plunged into uncertainty with the birth of the Covid-19 pandemic. But it also marks the year I began my medical degree at King's College London. While this was meant to be an exciting new chapter in my life, instead the turning pages came to a grinding halt as the government declared a global lockdown. I have used photography to depict my personal experience of medical school during the Covid-19 pandemic.

My artwork is made up of four pictures arranged in a 4 by 4 grid separated with thick black borders to make the overall appearance look like a window. The purpose behind this was to make the viewers feel like they were literally looking through the window into the life of a medical student during a pandemic. I decided to name the piece 'Through Covid Tinted Glass', a spin on the phrase: 'looking at the world through rose tinted glass' which is all about only seeing the positives, however I wanted to be able to show the negative impact that the pandemic has had on my life as a student. I also purposely used words like 'through' and 'glass' to emphasise the ideas of having a barrier between the online and physical presence, as well as the idea of imposter syndrome and not feeling part of university life. Furthermore, I made the choice of putting black and white filters over all the pictures to remove the distractions that vibrant colours would have created as I just wanted to the viewer to focus on seeing the raw messages I was trying to portray to allow simplicity.

Focusing now on the final four pictures I decided on capturing. The first picture I took is of a student standing in an empty lecture theatre and putting her hands up as if she is leaning on a glass, this is to symbolise the barrier that is preventing us from feeling like we truly belong here on this campus to study. It also portrays an entrapment, as if medical students are stuck learning online and will never truly feel integrated into campus life. In terms of technical aspects, I decided to blur out the lecture theatre seats from the photo to make the glass effect more realistic, as if she is truly separate from the other side.

The next picture is of a student holding onto black bars and staring into Guys Campus while wearing a mask. This is to portray the idea that we feel a barrier between the online and physical presence as we haven't been on campus so therefore feel like outsiders.

The next photo is a close-up of a student in hospital placement, wearing scrubs, a lanyard, stethoscope, mask, and face shield to make it look truly authentic, with the idea being that we also have physical barriers between our faces and the world so we can't fully express our individual identity.

The last photo is of a student holding up a stethoscope to the computer, where I was trying to symbolise how we have essentially been using our computers as our patients due to teaching being online. I also wanted to show the reflection of her face on the screen to emphasise the sense of independence as we have been our own teachers and have had to do a lot of self-directed learning.

*Take a peek through the window into my life as a medical student during the Covid-19 pandemic...*

*I try to get a glimpse into a lecture theatre, just don't cry*

*I feel locked out of my own campus, just have to say bye*

*I treat my computer as my patient, just me myself and I*

*I lose my identity behind the layers of masks, ust want to say hi*

# News from the Medical Students' Association President 24-25

Shahnaz Hussein **GKTMSA President 24-25**

As my time as President of the Medical Student Association (MSA) comes to an end, I'm incredibly proud of everything we've achieved together over the past year. From strengthening academic support and advocating for student well-being it's been a truly transformative time for the MSA and the wider student community. This role has been about more than just representation; it's been about connection, growth, and making meaningful changes that will last beyond my term.

One of the major areas of progress has been in student support and well-being. The MSA has worked closely with the faculty to ensure accessible and responsive counselling services, helping students manage the pressures that inevitably come with medical school. I'm proud that many of us on the MSA committee have completed Mental Health First Aid training, and we're now looking to expand that further by encouraging society leads to get involved too.

Academically, we've focused heavily on making assessment criteria more transparent, especially in light of the Medical Licensing Assessment (MLA). We've worked alongside faculty to ensure students understand what's expected and have the tools they need to succeed. This has been complemented by our GKTeaches, PALS, and OSCE workshops. Seeing students come together in study groups, guided by both peers and staff, has been inspiring.

Beyond academics, this year has also been about bringing joy and connection to the student body. One of my favourite events was "Are You Smarter Than a Year 7?" - a collaborative event with our faculty and the student experience team. It was packed with fun, laughter, and a healthy bit of competition. Alongside that event, we ran our first ever MSA Iftar event brought the community together in a warm, inclusive atmosphere - while also raising funds for our charities this year - Evelina's and Make a Wish.

While I am genuinely sad to be stepping down, I am incredibly excited for what's next. Our incoming President, Maheen Siddiqui, is full of energy, passion, and new ideas. I have no doubt she'll continue to build on the momentum we've created and take things even further.

Looking ahead, there's still so much to look forward to in the next couple of months - especially the Blues and Shields Awards, which will be held on Friday 30th May. Nominations are open until Saturday 3rd May, and I can't wait to celebrate the amazing contributions of our peers. Keep an eye out - tickets will be out soon!

MSA Love,
Miss Pres,
Shahnaz Hussain


*The Conservation Room of the old Dental School in Guy's at around the turn of the century*

# Dental Corner

*Photo: UMDS Volume 101 No 2369, 31st of January 1987*

# Guy's Hospital Dentists Golden Jubilee Reunion

David Jackson & Jill Nightingale **BDS 1974**

Dear Guy's Gazette,

In early September last year, 28 graduates from Guy's Hospital Dental School gathered for 48 hours to celebrate 50 years since graduation. We were joined by 20 spouses/partners. The celebrations included a Reception and Dinner at the Hilton, Tower Bridge where most of us were able to stay. The hotel provided us with great hospitality and excellent food and service. Graduates came from all over the UK, from the USA and from Norway.

A group photograph re-enacted the original photos on the steps of the Medical School. Amazingly the original photographic company, from 55 years earlier, is still operating and we were delighted with the result. A tour of the Old St. Thomas' Operating Theatre, where one wag used a saw to attempt the amputation of one of his colleague's legs, a lovely lunch in Borough Market, a visit to the View from the Shard. We rounded off our celebrations with cocktails and live music in Oblix, halfway up the Shard, as we watched a glorious sunset in the clear skies.

It was a joyous and wonderful occasion, renewing friendships and with big smiles all weekend.

We had a surplus left over from our contingency fund and have donated £400 to Smile Train as a most appropriate charity for a group of clinicians who have spent their working lives in Dental and Oral Surgery and to support the amazing work that they facilitate around the world.

Guy's Hospital made us very welcome, and it was amazing to be back there after so many years. It was abundantly clear that our years in SE1 had been a massive part of our lives when we were students and moreover, had supplied us with a variety of resources to enrich our professional lives. We enclose a photograph in case you wish to publish anything about this event.

With best wishes.

David Jackson and Jill Nightingale


Guy's Hospital
Dentists Golden Jubilee Reunion
September 2024

*Photos credit to Monty's Photography*

# Online Friends Shop

## *Via the Friends pages of the Guy's & St Thomas' Website*

## *guysandstthomas.nhs.uk/get-involved/friends-guys-and-st-thomas*

*We can deliver to your home (postal charges apply) or you can collect from the Shop at St Thomas'*

*All hospital memorabilia available - Tankards, Tumblers, Gin glasses, Hip Flasks, Cufflinks, Ties, Tie Slides, Lapel Badges, Compact Mirrors, Trinket Boxes, Pens, Letter Openers, Bottle Stoppers, Key Rings, Bookmarks, Card Holders, Mugs, Pictures, Books, Cards, T-Towels, Aprons, Bags.*

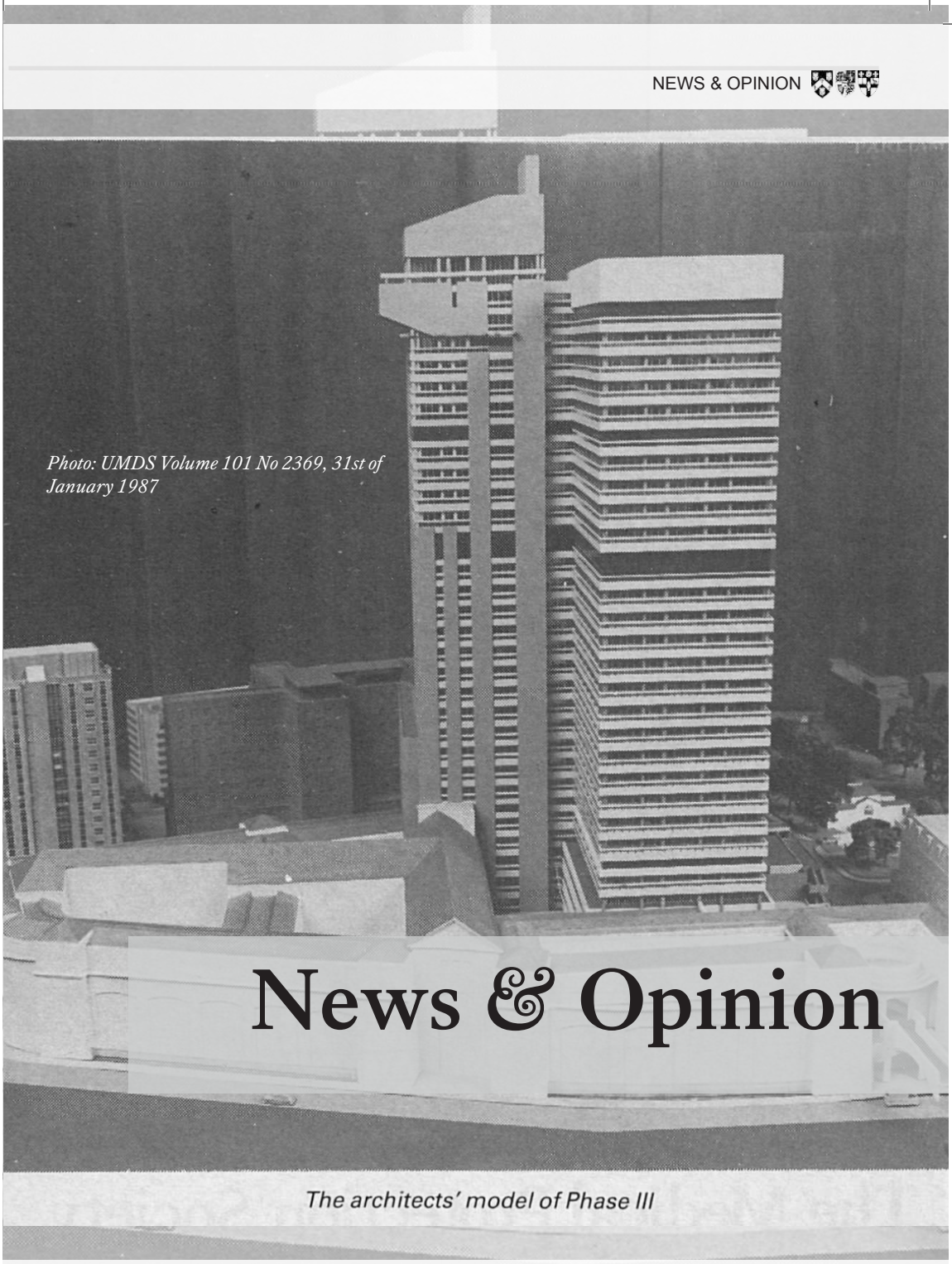


*Photo: UMDS Volume 101 No 2369, 31st of January 1987*

# News & Opinion

*The architects' model of Phase III*



The architects' model of Phase III

# The End of Life Bill: *What would it mean for doctors if patients can choose to die?*

Jade Bruce **MBBS5**

Euthanasia, taking etymological roots in Greek to mean 'good death', is the deliberate ending of a person's life to relieve suffering. Notably, euthanasia is distinct from assisted dying, which is the act of deliberately assisting another person to kill themselves, though it's the individual themselves who ends their life.

In the UK, it remains illegal to assist anyone to end their life and could result in a maximum sentence of life-imprisonment (though in practice this is often not the case). Yet there is an incongruency between current law and public sentiment on assisted dying, with UK polls showing that a public majority support the legalisation of assisted dying. A 2024 survey by Opinium research of over 10,000 adults found that 75% supported the legalisation of assisted dying, with only 14% against.

In February 2020, the BMA surveyed members (n=28,986) on physician-assisted dying, finding similar support for assisted dying among doctors. The survey found that 40% of voters thought the BMA should actively support attempts to change the law, leaving 30% opposed, 21% neutral and 6% undecided. Following these results, the BMA changed their stance on physician-assisted dying from opposition to neutrality. These landmark findings were likely instrumental in heralding the recent success of The Terminally Ill Adults (End of Life Bill), introduced by Labour MP, Kim Leadbeater.

The bill would give terminally ill adults in England and Wales the right to choose to end their life (subject to safeguards). An individual may request permission from the high court to receive assistance to end their life, providing they're expected to die within 6 months, are deemed to have capacity, and are under no coercion. The bill has passed the second reading, meaning it was debated in the House of Commons and held to vote, with 330 MPs voting in support and 275 in opposition.

A bill is a proposal to introduce a new law or change an existing law, though it's not itself a law yet. The End of Life Bill must successfully pass multiple stages of scrutiny and further debate before it receives royal assent and becomes law. That said, this is the first time a UK bill proposing the legalisation of assisted dying has ever passed the second reading, representing an enormous step towards legalisation. As the UK continues to track towards the legalisation of assisted dying, we must navigate our own personal and professional feelings towards caring for patients who wish to die.

Doctors have the right to conscientiously object to participating in assisted dying, a protection clearly outlined in the most recent version of the bill: "No registered medical practitioner or other health professional is under any duty... to participate in the provision of assistance in accordance with this Act." Like patients and the wider public, medical students and doctors carry their own values and beliefs that shape their perspectives on assisted dying and influence their willingness to be involved in the process.

Throughout medical school, we're taught and shown what it means to be a competent, compassionate, and trustworthy doctor — the goal that we strive towards. But where are we left as clinicians if patient autonomy can reach as far as the decision to die? Perhaps, we can turn towards some form of ethical reasoning for an answer. The medical adage, 'do no harm' is ingrained as a fundamental principle of medical ethics. But if we follow the Hippocratic way and 'first, do no harm,' then second we should ask: 'what is harm'?

At times, harm can be nebulous... inherently subjective, while intensely personal. What may be perceived as harm to one person, may be acceptable to another. Indeed, harm versus benefit is a contextual and multi-factorial balance to weigh; it's an onerous task to weigh the benefits against the harms of choosing to die. The modern model of patient-centred care and shared decision-making lends itself well to offer patients the support and autonomy needed to make their own informed decisions.

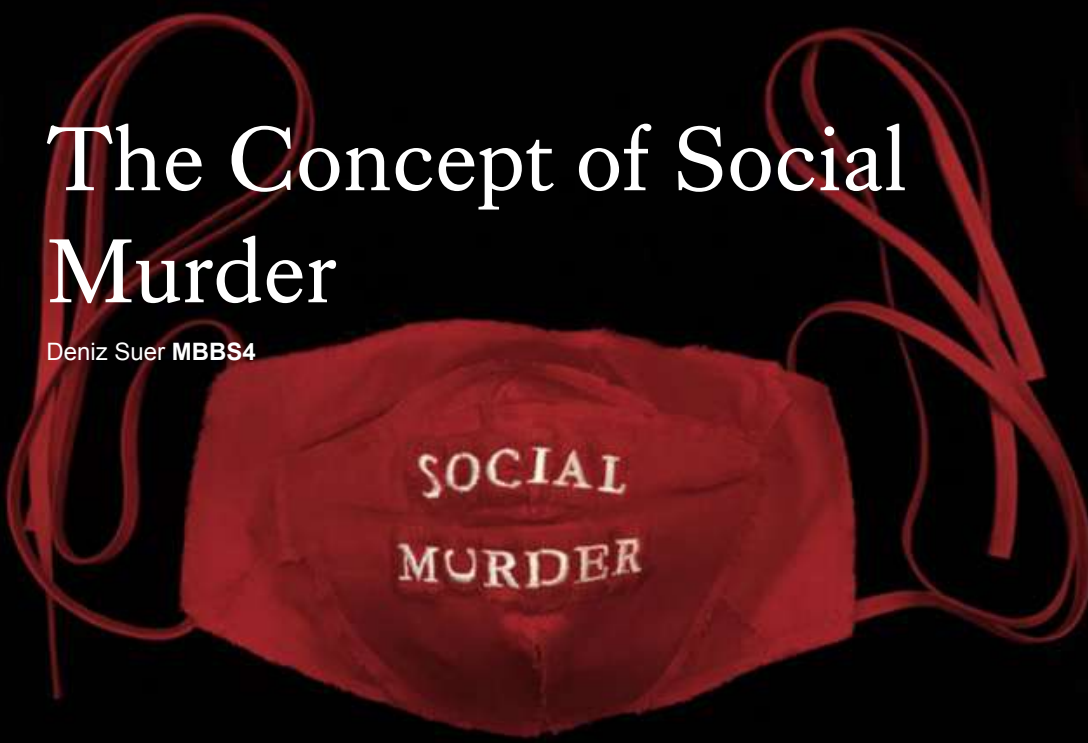
As future doctors, we can agree that it's our duty to relieve suffering and improve quality of life wherever possible. Globally, medicine is recognising the importance of high-quality end-of-life care, and the more nuanced harms of inappropriate investigation and treatment. There is a strong case to make for greater investment in palliative and end-of-life care. Too often, it's not the limits of medicine that lead to unnecessary suffering at the end of life, but rather a lack of proactive palliative care and inadequate service provision — particularly when we consider that around two-thirds of hospice care in the UK is third sector funded. Perhaps it's telling that palliative care doctors were by far the most opposed to the legalisation of physician-assisted dying (76% opposed in the BMA survey).

Of course, we must acknowledge there are limits to even the best end-of-life care. It's not always possible to eliminate suffering, especially when this is so personal and multi-dimensional. Nonetheless, it is deeply troubling to think that some patients may choose to die because of poor access to quality end-of-life care, conjuring the image of a grim postcode lottery in which a patient's decision to live or die is dictated more by funding gaps than clinical need.

Moral ambiguity arises when the perceived duty to preserve life conflicts with the duty to alleviate suffering. In such cases, an ethical judgment must be made to determine which obligation takes precedence, a challenge further muddied by political and clinical complexity. For some, personal beliefs and patient values may clearly tip the balance. For others, the answer may remain elusive. As future doctors, we have no choice but to learn to navigate these shifting ethical climates, guided by our intrinsic sense of morality and compassion.

# The Concept of Social Murder

Deniz Suer **MBBS4**




*Kate Kretz, Social Murder, 2020. Deconstructed MAGA hats, cotton, thread, 5 x 8.5 x 4", from the MAGA Hat Collection. Cut and pieced individual MAGA letters to form revised text*

In the early hours of 4th December 2024, the shooting of UnitedHealthcare CEO Brian Thompson in New York fired shock waves internationally, and shortly after an intense manhunt, the suspected killer was revealed to be Luigi Mangione, a young and charismatic man who faced chronic health issues. People celebrated him as a hero, and many in America united in their resentment towards the US healthcare system. The ensuing frenzy prompted national discussion on health insurance reform, with some arguing that the murder of one man was a reaction to the 'social murder' of millions. But what is social murder and who, if anyone, should be held accountable?

*References available on request at gktgazette@kcl.ac.uk*

The phrase ‘social murder’ was first popularised by Friedrich Engels in the mid-19th century. In response to the premature and unnatural deaths of the working classes through poor wages, diets, and housing, Engels denounced the deliberate exploitation of social and political control for profit by ruling authorities and the bourgeoisie, writing in *The Condition of the Working Class in England*:

> "I have now to prove that society in England daily and hourly commits what the working-men’s organs with perfect correctness, characterise as social murder, that it has placed the workers under conditions in which they can neither retain health nor live long; that it undermines the vital force of these workers gradually, little by little, and so hurries them to the grave before their time."

In a similar vein, Edwin Chadwick, Commissioner of the Board of Health of Great Britain from 1848 to 1854, declared that the peculiar deaths of the poorer classes in London were ‘the same as if twenty or thirty thousand of these people were annually taken out of their wretched dwellings and put to death. Unlike Chadwick, however, who proposed better sanitation as a remedy for these findings, for Engels the only answer lied in a radical challenge to the capitalist system.

Engels’ book profoundly shaped Karl Marx’s thinking, and it is perhaps because of a long-standing aversion to Marxist concepts in the West that there is little usage of the social murder concept and political economy approaches to understanding health inequalities in the English-language literature.

Some argue that the poor health of the working classes is an imperative of capitalism. Employers must exploit their workers to maximise profit and compete with other capitalists, and this can take various forms including suppressing worker pay and commodifying public domains of life, including healthcare, where the rate and intensity of exploitation determines the health differential.

Conservative economic policy, in particular, is characterised by free trade and reduced state intervention. By submitting to pressure from industry lobby groups, this allows firms to obey the will of ‘the market’ and please both their customers and workers in order to sell more.

The intensification of these practices in recent decades (from 1980 onwards) is referred to as ‘neoliberalism.’ This laissez-faire ideology is thought to liberate and stimulate the full creative potential of the market, and has been promoted by an alliance among the dominant classes of countries across the world.

As governments withdrew from legal, fiscal, and regulatory intervention, and subsequently public health, they have tended to confine health policies to information and education on prudent ‘lifestyle'.

In Renaissance Europe, and then in other technologically developing countries, living things, including human beings, became identified as ‘marvellous machines’ and the study of life as metaphysical. The successful development of antibiotics in World War II, and the subsequent growth of the pharmaceutical industry, meant diseases became associated with external agents, and public health, and social and environmental aspects of nutrition declined.

A notable example of social murder is the exclusion of HIV/AIDS-positive individuals by the medical industry.

More recently, the Grenfell Tower fire in 2017 has focused public attention on the government’s failings to uphold safety regulations

despite repeated early warnings and complaints from tenants. The dehumanising prioritisation of property over life evokes J.C. Symonds' description of the wynds of Glasgow, who until visiting them did "not believe that so much crime, misery, and disease could exist in any civilised country."

Likewise, the COVID-19 pandemic 'exposed and magnified' the health inequalities that persist due to governments' policy failures and lack of attention to scientific advice that might go against their political ideologies, illustrating 19th-century physician Rudolf Virchow's assertion that "mass disease means society is out of joint."

The effects are more insidious, too. The literature demonstrates a 'significant association' between austerity and suicide rates, and it is possible that the worsening of mental health in society is also related to lack of state intervention in social media regulations. Climate change and homelessness can also be viewed as a result of policies which reinforce attributes that dominate the discourse of economy and industrialism such as utility, efficiency, and profitableness.

And what of the future? Could genetic engineering be exploited to benefit privileged individuals and propagate the political economic system? Will AI be used to replace 'disposable' labour power to reduce costs for the elite?

In many ways, the NHS is a perfect consumer vehicle – as the average lifespan of Britons rises, and increasingly sophisticated life-saving treatments and interventions develop, patients are theoretically consuming more for longer. The sociologist Zigmunt Bauman argues that knowledge of mortality encourages much cultural and consumer behaviour, for 'fighting death is meaningless. But fighting the 'causes' of dying turns into the meaning of life.' Thus death becomes a more technocratic experience, and individual choice is emphasised in keeping with neoliberalism. Others have labelled this 'necrocapitalism.'

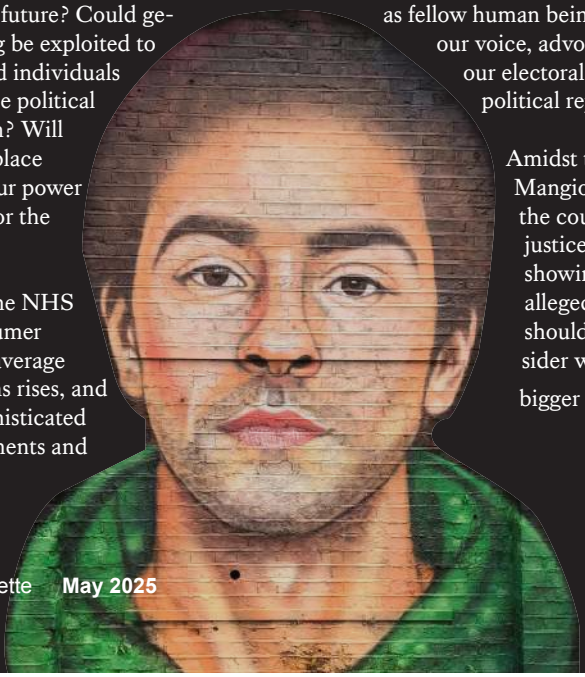
But we've seen what happens when health is approached with a capitalist ideology.

Virchow stated that "medicine is a social science, and politics nothing but medicine on a grand scale," and so as healthcare professionals we have a duty to the public to recognise that acts of omission rather than commission, may still constitute social murder.

Nearly 200 years later, Engels' concept of social murder is all but missing from the mainstream. It is currently not found in UK legislation, nor is it explicitly recognised as a crime by the International Criminal Court.

While legal means of acting seem limited, we, as fellow human beings, have a duty to use our voice, advocate for others, exercise our electoral power, and lobby our political representatives.

Amidst the ongoing case of Mangione, crowds surround the courthouse calling for justice. When people are showing up in support of an alleged killer, however, it should give us pause to consider whether there are even bigger criminals at large.



# Plaque Unveiling of James Lambert, an "Honorable Doctor" 1802-1830 at Guy's Campus

28th of April 2025. Pictured from left to right are Professor Sir Cyril Chantler, Sir Nick Black and Dr Tina Challacombe at the unveiling of the plaque in memory of James Lambert. The plaque was presented by the John Fry Group, the medical and dental alumni group of Guy's Hospital.

The history of John Lambert is uncovered in Sir Nick Black's book which can be purchased from the Old Operating Theatre. Details from the website are listed as follows:

*Westminster Hall, 13 December 1828.*
*Midnight. Thousands are massed outside. Newspapers are holding their presses.*
*James Lambert, a young apothecary-surgeon, has accused a leading surgeon at Guy's Hospital of killing a patient. Never before has a doctor's competence been challenged in a court. What drove him to take on the medical establishment, risking everything he'd always wanted?*
*For two centuries his contribution to the making of modern health care has lain unrecognised. This novel, based on true events, tells his extraordinary story.*

*Paperback*
*Publisher: Grosvenor House Publishing Limited (3 Nov. 2022)*
*Number of pages: 366*
*ISBN: 1803811826*

# Scrubbing Up or Scrubbing Out? The GKT Scrubs Controversy

Milad Qadare **MBBS2**

So, you've heard about the new scrubs that the Medical School purchased for us, only to receive them months later, try them on and realise that the sizing is completely off. Perhaps, you feel like you've been downgraded from 'future doctor' to 'hospital mascot'? Well, you are not alone!

GKT Scrubs have been highly requested by students in the past. In July 2024, the scrubs were announced on the @kingslsm Instagram page. Among students, the scrubs have received mixed reviews, including comments about the colour, lack of embroidering of the logo, and even the fact that King's College London was spelled without the apostrophe!

In comparison, the Portsmouth Branch also have their own set of university-branded scrubs, which are of much better quality. Their scrubs feature an embroidered logo, are made from higher-quality materials (from Dickies), and come in a more professional-looking colour. This raises the question of why King's has chosen to invest in premium scrubs at the smaller Portsmouth cohort while providing lower-quality, mass-produced alternatives for the much larger student body at its home campus—so we decided to investigate...


The Portsmouth Branch scrubs


On 14th February 2025, we surveyed the opinions of 94 Students from Years 2-5. Key aspects covered were provision, scrubs design, size and fit, and overall satisfaction.

The majority of students (74%) agreed that providing scrubs was a positive decision, as it was something many had requested for a long time, particularly given that other medical schools had already implemented similar policies. Similarly, most students (68%) agreed that having scrubs was useful and beneficial to them. not unexpected, given that scrubs are essential for clinical placements, so having our own gives us a sense of belonging and professionalism, reinforcing their identity as medical students within the hospital setting.

Students appreciated that the scrubs were provided free of charge, ensuring that all students had access without additional costs. One student noted, "That they're free of charge and more than one pair is provided." Many students also welcomed the decision to provide two sets, allowing them to rotate between washes more easily, which was seen as practical for those with multiple placement days. The inclusion of multiple pockets was another highly praised feature, making it easier to carry essentials while on placement.


Data from the question: How much do you agree with the following stateement?
"I am happy that King's FOLSM has **provided** me with scrubs"

Some students also appreciated the purple colour scheme, as it helped distinguish them as GKT medical students and fostered a sense of community. One student remarked, "I like the fact that we have the purple colour scheme, as it distinguishes us as medical students and gives us a sense of community among GKT medical students." Additionally, having their own scrubs eliminated the need to source hospital scrubs, reducing the hassle of finding available sizes and a place to change when attending theatre or ward-based learning. A student highlighted this benefit, saying, "It also solves the problem of finding scrubs in the hospital and finding a place to change within theatres or wards, which is usually time-consuming and awkward."

However, the data took a turn from here. Starting with size and fit, 76% of students were not happy with how the scrubs fit. Many reported that the sizing was inaccurate, with some finding them too small and others complaining about an unflattering, boxy cut. Some comments regarding this included "It's literally like wearing a purple plastic bag. They're also absurdly long—it's a mix between a top and a dress. And the fabric is really uncomfortable" and "These scrubs are definitely not designed with different body types in mind. They either drown you or squeeze the life out of you.", which emphasise the lack of inclusivity in sizing.

The current design does not accommodate a range of body shapes, making them uncomfortable for many students, particularly women. Properly fitted scrubs should take into account differences in proportions and provide options that cater to all students, rather than relying on a one-size-fits-all unisex model that ultimately fits no one well.


Data from the question: How much do you agree with the following stateement?
"I am happy with the **size** and **fit** of my scrubs"


Data from the question: How much do you agree with the following stateement?
"I felt well informed about the **design decisions** of the scrubs"


Data from the question: How much do you agree with the following stateement?
"I am happy with the **colour** of my scrubs"

The most negative aspect of the scrubs was the colour, with a striking 93% of students expressing dissatisfaction. The choice of purple was likely linked to the 'GKT' theme, as seen in staff presentation slides. However, Portsmouth's purple scrubs are a darker, more professional shade, whereas ours are much brighter and stand out in the hospital, contrasting with the more commonly seen scrubs in blue, burgundy, and green. One student described the colour as "The colour is awful—it looks cheap and unprofessional compared to other medical schools' scrubs.", while another said, "It makes us look like we're about to run a children's funfair, not go on placement.".

The logo design received mixed reviews, with 67% of students unhappy with it. Many expressed concerns about the iron-on print logo, which is prone to peeling after multiple washes—particularly for students on placement three or more days a week, who need to frequently wash their scrubs for infection control. High temperature washing, which is essential for hygiene and decontamination, will accelerate fading and deterioration of the logo, reducing the longevity of the scrubs.

Additionally, the lack of colour in the logo makes the GKT crests barely visible, failing to stand out as a distinctive university emblem and making the overall design look dull and low-quality. Comments on this were "The colour is too bright, the logo looks cheap, and is not reflective of other GKT merchandise." and "The logo design is embarrassing. It looks like it was printed last minute on a budget t-shirt rather than something meant for medical profes-


Data from the question: How much do you agree with the following stateement?
"I am happy with the **logo design** on my scrubs"

sionals. Embroidery would have made a world of difference.”.

Building on the point of infection control; as students progress through the years, their placement commitments also increase, with many spending three or more days per week on the wards. Having only two sets of scrubs is insufficient, as frequent use requires constant washing. This is neither environmentally friendly nor cost-effective, as students are forced to wash small loads more frequently just to ensure they have clean scrubs for placement. Additionally, transporting scrubs home from the hospital poses a health and safety risk, as students may unknowingly carry pathogens or contaminants, increasing the risk of cross-contamination in shared living spaces.

Overall, the scrubs got an average rating of 1.78/5, with 48% of students rating them a 1 star, and zero students giving a 5-star rating.

The survey highlights the importance of the student voice in decisions that impact us. While we are privileged to have university-branded scrubs, it is clear that they did not meet expectations. This experience emphasises the need for the faculty to consult students before making such decisions. After all, we are the ones wearing them for hours on end each week. If student feedback had been included earlier in the process, many of these issues could have been avoided. Hopefully, this experience will encourage the faculty to engage more with students before making similar decisions in the future.


Data from the question: How much do you agree with the following stateement?
“The provision of scrubs is **useful and beneficial** to me”


Data from the question: Overall, what **rating** would you give the GKT scrubs?

# Cancer Care Inequality:
## Addressing the 'Postcode Lottery' in the NHS

Adhvika Rajesh **MBBS3**

Imagine two patients with identical cancer diagnoses, living just 6 miles apart. One faces a 70% chance of waiting over 2 months for their first round of chemotherapy, while the other faces a mere 5% chance. This isn't a hypothetical, it's today's cancer care reality.

Cancer is a devastating health concern, accounting for over one in four of all deaths in the UK. 28,400 cancer deaths each year are linked to socioeconomic inequalities. Timely diagnosis and treatment is critical for improving patient outcomes. Unfortunately, a patient's postcode can change everything. Recent reports show cancer mortality rates being ~60% higher in deprived areas compared to wealthiest regions. These statistics are not by chance. It is the shocking reality of healthcare inequalities in the NHS.

'Postcode lottery' refers to these disparities in healthcare services, dictated by geographic location. In economically marginalised regions, patients encounter multiple barriers in accessing cancer care. Bourgeois, Horrill, Mollison et al. 2024 explored the accessibility of cancer care in different areas. Treatment facilities seem to be disproportionately located in more affluent areas. This means patients from disadvantaged areas frequent longer travel to access the same care, with a heavier burden on their finances and time. Consequently, treatment delays and poor adherence are not uncommon.

Beyond geographical distance, Scott & Hoskin 2024 highlighted the low awareness about cancer symptoms among patients in the most socioeconomically deprived areas. The gap in health literacy can have dire consequences; each additional cancer symptom recognition is associated with a 1.56% increase in survival. This difference perhaps stems from limited health education, language barriers and scarce resources for community health initiatives.

How can the NHS confront this harsh reality?

Various efforts are underway. The Liberal Democrats have proposed a legal 2 month cancer treatment guarantee to combat the 'postcode lottery.' The Department of Health and Social Care has launched a call for evidence to make a comprehensive national cancer plan. With a clear focus on improving early diagnosis, and enhancing awareness, this initiative aims to create a "fairer Britain where everyone lives well for longer." Will this bridge the gaps that compound the health inequalities?

To address this, we must push for systemic change. As the future of the NHS, we must play our part in advocating for equitable treatment, whether through supporting community initiatives, engaging in policy reform, or raising awareness. Every patient deserves the same high-quality cancer care, regardless of economic background. Postcode should not dictate the fate of those battling cancer.

# Will weight-loss jab deal solve Streeting's wicked problems?

Ellen Martin **iBSc in Sociology and Politics of Medicine**

In late October, health secretary Wes Streeting revealed plans of pharmaceutical company 'Eli Lily' to work with the UK government in tackling public health challenges- such as obesity.

These plans include a five-year clinical trial to test the 'real-world' effectiveness of the anti-obesity injectable drug, tirzepatide, sold under brand names Mounjaro and Zepbound. This study has been framed by the government as aiming to tackle not only obesity, but also unemployment. Engaging with mainstream media shortly after, Streeting and Keir Starmer both suggested new weight-loss jabs could get people 'back to work' to boost the economy (see Streeting in the Telegraph, and Starmer on BBC Breakfast).

Purported measures of 'effectiveness' in the study will be, weight loss, obesity related complications, employment status, as well as the number of sick days the participant takes.

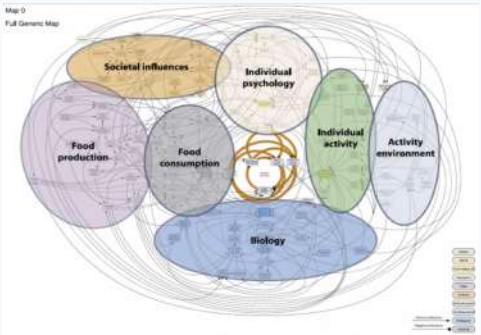
**TWO WICKED PROBLEMS:** Streeting is right to highlight the strain of obesity on our health system - estimated at £11bn annually - and connect it to unemployment rates. A recent report co-authored by the NHS highlighted that 85% of the increased economic inactivity in UK was attributable to long-term sickness, with the majority of health conditions related to, or exacerbated by, obesity. Specifically, significant increases have been seen in musculoskeletal and mental health issues.

Ignoring the dystopian parallels of aiming to reduce 'worklessness' then subsequently slashing disability benefits, and interpreting these plans with the best intentions, you can see the logic behind this trial. Labour is essentially trying to determine if it can tackle two problems with one solution.

Obesity and unemployment are, however, notoriously hard to tackle. They have even been dubbed wicked problems. The concept of a "wicked problem" was introduced in 1973 to describe the challenges and complexities or addressing certain social policy problems. Those problems deemed wicked are usually very complex, with an interconnected nature, and almost impossible to solve in a way that is final. Hence, obesity and unemployment, with myriad independent causal factors including the financial, psychological and social, fit right in this categorisation.

This is a commonly understood notion in healthcare and policy alike, so it is assumed the involved parties don't expect to solve these issues but to provide a potential technological fix that could help reduce rates of both obesity and unemployment.

**CAN WEIGHT-LOSS JABS BE A SUCCESSFUL FIX?** The difficulty in tackling a wicked problem, usually stems from the interconnected and complex nature of its causal factors - see the image below for a map with thematic groupings of the causal factors of obesity, such as food production/consumption, societal influences as well as individual psychology. Efforts to challenge one or few causal factors, such as increasing equitable access to gyms in the case of obesity, usually don't change much - as a plethora of other factors act to prop up and maintain the status quo.




Graphical representation of the system of factors identified by Foresight that contribute to the prevalence of obesity.

The BMJ stated that tackling wicked problems, specifically obesity, is an art that requires "grasping the big picture, including the interrelationships among the full range of causal factors underlying them". Only then may small changes add up to make noticeable change.

The factors contributing to obesity that weight-loss jabs aim to challenge are primarily related to treating or preventing physical health conditions; They can prevent type 2 diabetes and act to reduce obesity related complications by inciting weight loss. As with other interventions, there are secondary effects such as how weight loss may be beneficial to an individual's mental health, or make exercise more accessible for them etc.

Unfortunately, even if this trial reveals the jabs are effective at tackling said casual factors, the government will not be able to realise their benefits without acknowledging the others. With over 14 years of austerity cuts seen to welfare spending, and the cost-of-living restricting access to healthy foods and lifestyles, obesity rates are unlikely to change all that much.

Even those who receive these weight-loss jabs are often unable to maintain the results after the completed course of the drug is given. A study of sister drug - semaglutide - found that within 12 months of treatment ending, on average patients regained two thirds of their prior weight-loss. Part of the reason for this is the unchanged system of causal factors these patients still live in.

With that said, many individuals attest weight-loss jabs to have been revolutionary in their recovery from obesity. So, if the trial goes well and there are recommendations to increase the prescription of weight-loss jabs to those obese, or obese and unemployed, how would the NHS handle the increase in demand?

Currently, NHS obesity services in the UK are struggling, with some services so overstretched that they've had to close entire waiting lists. Coupled with the already high demand for weight loss jabs, that is causing shortages across the UK, specialists are warning the NHS won't be able to facilitate increased treatment rollouts.

The director of the Obesity Health Alliance has asserted that 'even if you are taking the jabs, you still need to have extra care and support around it. You still need to be doing exercise and have dietary advice as well and that's not currently there.'. They are calling for the government to fix the 'chronic underfunding' of services first.

If the NHS can't provide these drugs effectively, people will - as they already are - source them privately or online. This, alongside the government's seeming prioritisation of economic potential over individuals' health, has raised ethical concerns among experts- including the likelihood of entrenching current healthcare inequalities.

Ultimately, even though this drug can play a role in addressing the wicked problems of obesity and unemployment, it can only do so when used as part of a broader strategy that acknowledges the complexity and interconnectedness of their causal factors.

Aside from vague plans to work with the food industry, Streeting has shared nothing about how his party will go about supporting obesity services, tackling other casual factors, and/or actually preventing obesity. Hopefully, this will change soon.

# The U.S. Withdrawal from WHO:
## A Global Health Crisis in the Making

Juhi Agarwal **MBBS3**

In January 2025, the United States withdrew from the World Health Organisation (WHO). This sudden departure creates a funding crisis, jeopardising healthcare worldwide. Previously, the U.S was the largest donor- contributing ~20% of WHO's $6.8 billion budget in 2023: funding vaccine distribution, disease surveillance, and emergency response. Without them, this isolated crisis can quickly escalate into a global emergency. This marks a turning point for global health.

Historically, the U.S. has contributed between 12.5% and 15% of the WHO's budget, including $681 million in 2020-21: supporting polio eradication and emergency preparedness. The withdrawal will force cuts to critical programmes, the effects of which will be felt most acutely in low and middle income countries, particularly in HIV/AIDS treatment. The WHO distributes medications, particularly in sub-Saharan Africa, home to 67% of people living with HIV. Reduced funding threatens the goal of ending AIDS by 2030.

Further, many WHO programmes are already underfunded; by 2024, 8 out of 12 priority health areas in Africa were less than 50% funded. Losing U.S. financial aid could further destabilise health systems, disrupt vaccine campaigns, and hinder emergency responses- leading to preventable deaths.

The withdrawal also disrupts global health programmes including COVAX, tuberculosis control, and early outbreak detection. Without U.S. support, these initiatives face reduced capacity, and potential collapse.

Infectious disease knows no borders. Weakened health systems in one region can trigger a domino effect, increasing the risk of global outbreaks. The WHO is instrumental in tracking zoonotic diseases- pathogens that jump from animals to humans. The 2025 bird flu outbreak among U.S. livestock highlights this. A weakened WHO means fewer resources for early detection and response, endangering both global and U.S. public health.

The U.S. exit signals a troubling shift from multilateralism. This undermines partnerships that have saved millions of lives, historically. As an influential player in global health, the US shaped critical WHO policies, like the 2024 International Health Regulations. Its departure creates a vacuum, filled in by other nations like China and the EU. Without the USA's leadership, the health governance becomes fragmented. For example, the new Pandemic Agreement has been disrupted, jeopardising coordinated efforts to prevent health crises. Moreover, a limitation to American-developed medicines and other innovations can exacerbate existing health disparities, and leave vulnerable populations at greater risk.

The WHO is vital for disease eradication, emergency response and global health policy. The U.S. withdrawal threatens vaccine access, pandemic preparedness, and health security. Health is a shared responsibility- international cooperation is essential to prevent crises. As the world faces an uncertain future, one truth remains clear: global health is not a luxury- it's a necessity. The global community must act swiftly, before the consequences become irreversible. The stakes have never been higher.

# Arts & Culture

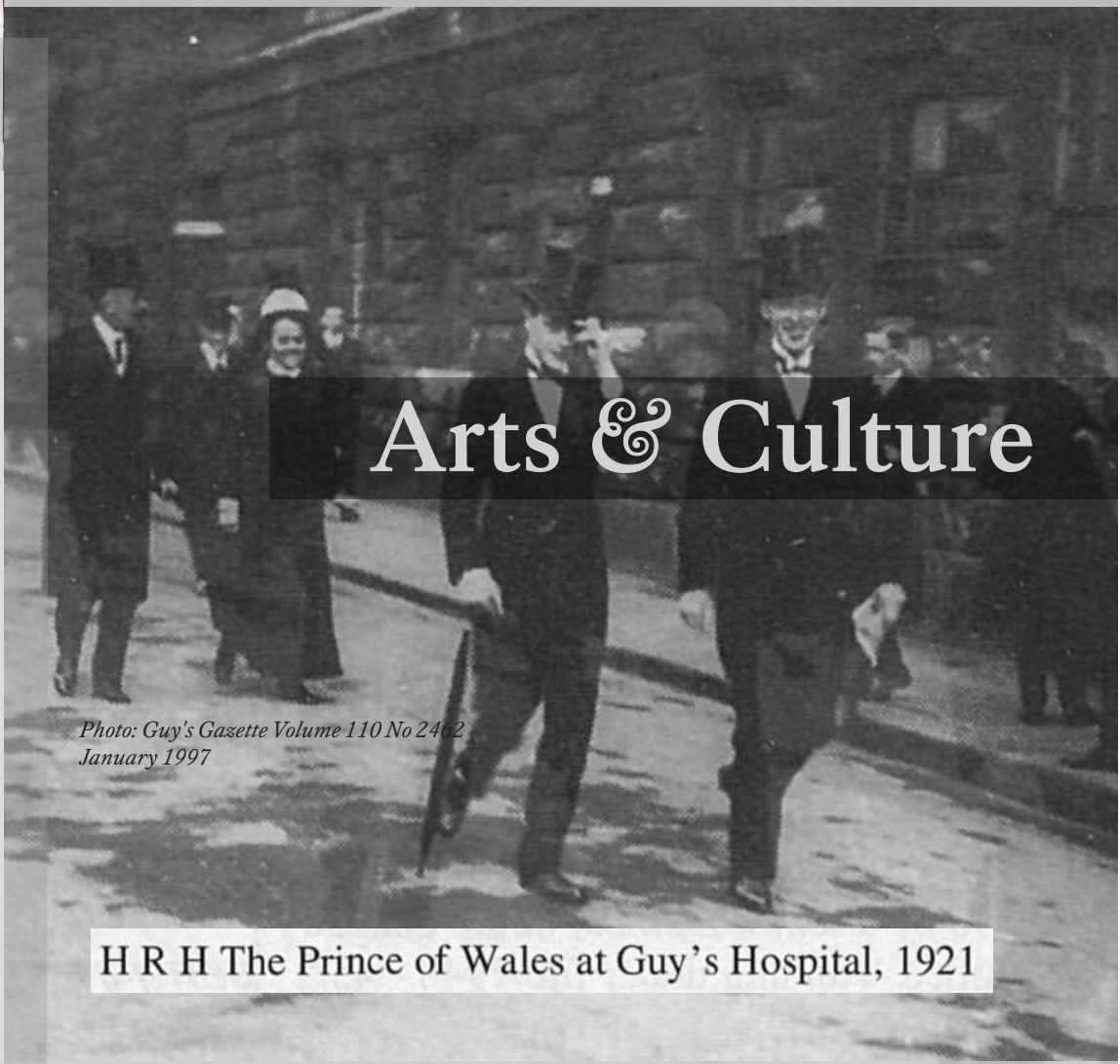



*Photo: Guy's Gazette Volume 110 No 2462 January 1997*

# Body in Art:
## The evolving roles of medical illustration

Naim Ghantous **MBBS2**

In the mid 1990s, researchers uncovered and photographed a fifteen-thousand-year-old drawing of a mammoth within the El Pindal cave on the northern Spanish coast (Hajar, 2011). Our ancestors were not remarkably detailed illustrators, with not much more than a rudimentary silhouette of tusks, torso, legs and tail giving the depiction form. Yet, a crimson blot lays prominently on the left side of the outline's chest, representing what is believed to be the creature's heart. Now, I imagine the hunter was more concerned with aiming their spear rather than the anatomical makeup of the poor mammoth, but their work is inarguably emblematic of our affinity for visual art, even at our most primitive instincts.

The anatomical illustrations that colour our books, journals and screens are born of this intuition to express what makes us human. Is the arm that raises the brush not the most fundamental human inspiration? The muscles that attach to the bones of your hand, the nerves that give them life and the eyes that silently judge the outcome. As the medical sciences blossomed throughout different stages of history, the fascination to visually depict the innovations of the era followed closely behind. Medical art is truly axiomatic in the breadth of intricate anatomical and physiological material it illuminates. These pictures are worth thousands of words, a reality that any student of the discipline will be quick to echo (perhaps out of resentment), yet their immense value is often taken for granted.

Whilst the academic pursuit of anatomy originates to the ancient world of the Greeks, Romans and Egyptians, the onset of anatomical illustration as a distinct practice was severely delayed. Dissection of the human body was prohibited by law and punishable in most cultures. Even if a scientist were to circumvent this, lack of preservation techniques left putrefying and decaying cadavers that were in no way apt for visual study (Tsafrir and Ohry, 2001). This not only prevented contemporary physicians from furthering their understanding, but led to the curation of new knowledge based entirely on previously established beliefs. Future generations in the field emulated their renowned predecessors – notably Galen – due to the lack of opportunity to personally observe through dissection (Tsafrir and Ohry, 2001). For anatomical illustration to get anywhere it needed a new cultural lens to flourish in, and it was given exactly this during the Renaissance.

Leonardo DaVinci is often credited as the 'godfather of medical illustration within western culture' (Miller, 2023), devoting decades of his life to the portrayal of the body's anatomical and physiological systems, through conducting his own personal cadaveric dissections. A large amount of this work still holds striking medical accuracy today, yet an equally large volume of it has unfortunately been lost to time. Whilst the polymaths of the Renaissance were enamoured with human form as a muse for their art, DaVinci was one of the first to reckon with the body

beyond its vanity, and towards the biological systems it held within. It was Renaissance physician Andreas Vesalius' seminal work: De Humani Corporis Fabrica (Of the Structure of the Human Body) that revolutionised the standing of medical illustration as a necessary discipline, correcting centuries of false dogma laid out by Galen (Tsafrir and Ohry, 2001). The piece was full of decadent woodcut illustrations, a landmark technique at the time, and whilst it does not match DaVinci's anatomical accuracy in historical retrospect, its titanic sphere of influence made it inconceivable for anatomy to be of purely textual study again (Tsafrir and Ohry, 2001). Interestingly, while dissection for the sake of furthering medical understanding remained taboo, the scenic vignettes that backdropped Vesalius' specimens, gave an artistic drive to his dissections that was deemed perfectly respectable (Tsafrir and Ohry, 2001). I believe this dichotomy remains relevant today, in the sense we can ask: is anatomical illustration appreciated because of what it tells us about our biology or because it provides such a fundamental artistic depiction of the human form? And would the answer be the same if you asked those of us in the medical world, and those of us who are not? It seems preposterous now, given how interwoven anatomy and visual art are, that the advent of medical art as a profession is offset thousands of years from the initial pursuit of anatomical knowledge. Unfortunately, Vesalius' magnum opus, as with much of the work in the field during this era, holds scores of unnamed, uncredited artists veiled in anonymity (the most we know is that they were employed from the school of Titian – a renowned Venetian artist (Miller, 2023)). The artists of this instrumental, embryonic age of medical illustration will most likely never be known.

Throughout the Renaissance and up until the late 19th century, medical art was seen as an adjunct to the core surgical and anatomical innovation of the time, a subsidiary to seemingly more important individuals doing seemingly more important things. This confining tradition was unbound by Max Brödel and the Department of Art as Applied to Medicine in 1914 at the newly nascent Johns Hopkins Hospital in Baltimore (Miller, 2023), a paramount step into more official recognition of medical illustration as a truly valuable vocation. Brödel made a name for himself in the late 1890s and early 1900s, illustrating under eminent physicians and surgeons at Hopkins, including Harvey Cushing and William Cullen, and went on to teach his art in a dedicated, aptly funded department at Hopkins (Miller, 2023). The Department of Art as Applied to Medicine continued to cultivate revolutionary figures in the field as Brödel's influence permeated into the coming decades, notably providing unrivalled academic opportunity to women in the early 20th century. Dorcas Hager Padget, a pioneer in neurosurgical illustration, is one of many prominent examples (Miller, 2023).

Whilst Max Brödel, despite his innovative brilliance, is not so well recognised, I am certain that most of you are familiar with Frank Netter, a New York surgeon at Mt Sinai Hospital who put down the scalpel in favour of watercolour and a brush (Netter and Friedlaender, 2014). With the CIBA pharmaceutical company as his primary patron, Netter underwent a prolific and seminal stream of work in the second half of the 1900s, publishing 15 full colour atlases portraying the human form in health and in disease (Netter and Friedlaender, 2014). His Atlas of Human Anatomy remains the best-selling anatomy-atlas globally (Netter and Friedlaender, 2014); I can almost feel the 712 pages, written on the shoulders of illustrative giants that preceded him, staring at me from across the desk as I write (perhaps a call to revise some long-forgotten anatomy). He no longer had the

societal restrictions against cadaveric dissection, nor any requisite to frame his drawings in quaint Renaissance landscapes, and was blessed with invaluable connections to skilled physicians that ensured his work remained attributable to the shifting medical landscape. His success and renown, therefore, comes as no surprise.

However, as with much in life, we must look forward to the future. In recent times, the role of illustration as a primarily documentative and teaching trade has altered significantly, concurrently playing an instrumental role in medical innovation. Art will oftentimes create an idea that science, once advanced enough, will come and bring to life. For example, I wonder how a Venetian artist, building woodcut representations of human blood vessels would react to a CT angiogram and its vivid imaging of the arterial tree. Physicians are 3D printing vital organs based off digital art models, unbelievably complex proteins are being mapped out as fully interactive, artistic representations, and surgeons who have learnt from decades of illustration are drawing upon them as inspiration to trial novel techniques. I firmly believe that our interpretation of our anatomy is something photographic documentation is incapable of replacing, and the innovations that are being made based on the work of medical illustrators speak to that value. Our very own Gordon Museum is an invaluably accessible trove of illustrations from a myriad of time periods, and I strongly encourage you to delve into it if the time arises. Even with the unfortunate modern truth that textbooks and paper content are slowly becoming legacy media amongst medical students, illustrations acquired from the likes of Netter flood our online resources and retain their importance. So when you find yourself labouring over muscle attachments or the positional relationships of abdominal organs, staring with glazed eyes over an illustration that just seems to make everything worse, think of Galen, DaVinci, Vesalius and Brödel, and how the picture in front of you is a product of millennia of trial against their contemporary obstacles.

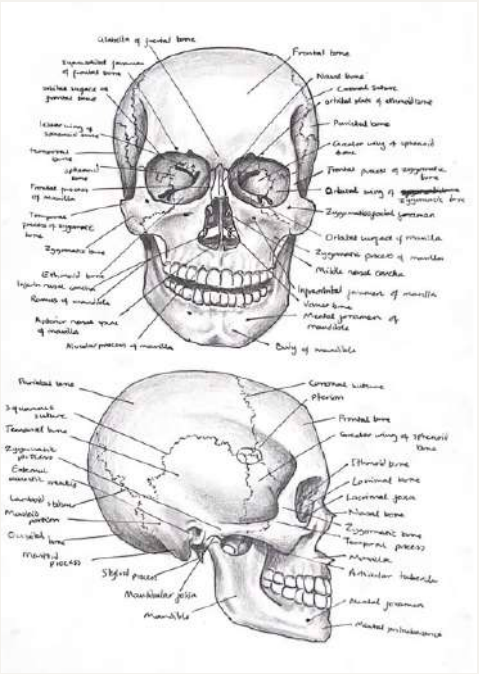


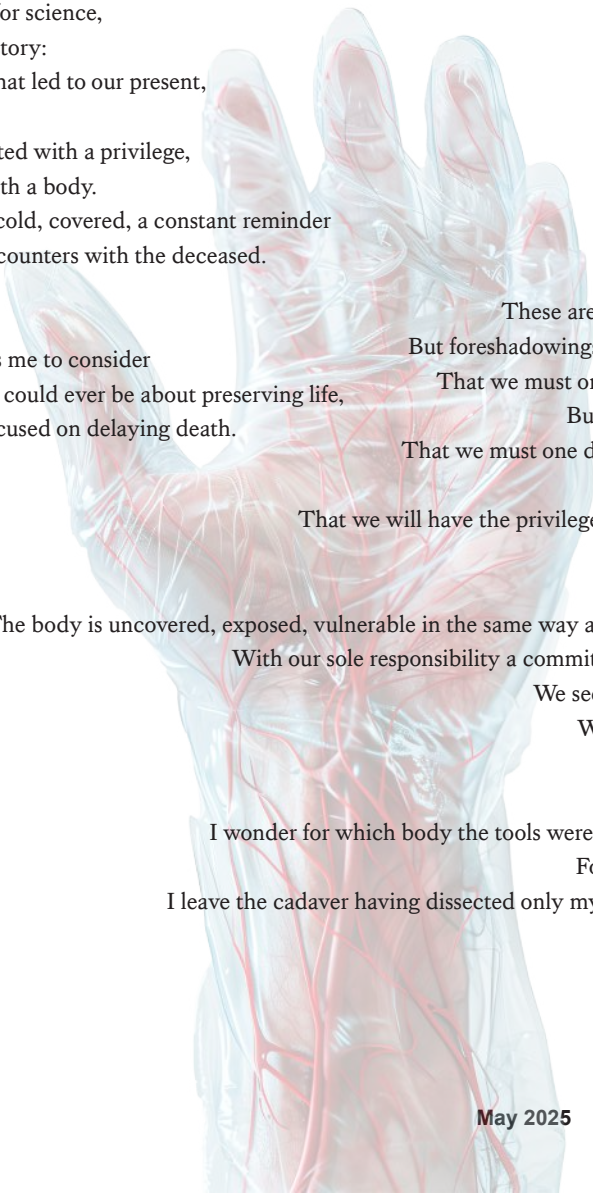

*Illustration by Rohan Chavali*

**Our bodies are real, and their stories must never be reduced to words on a page but instead should flourish in colour and paint and in ink.**

*References available on request at gktgazette@kcl.ac.uk*

# Reflecting on the First Cadaver

Joshua Fakulujo **MBBS1**



They hand us our tools:
Weapons wielded for science,
And give us the history:
Horrific episodes that led to our present,

We've been presented with a privilege,
They present us with a body.
But the cadaver is cold, covered, a constant reminder
Of our destined encounters with the deceased.

And even now,
Dissection prompts me to consider
Whether medicine could ever be about preserving life,
When we are so focused on delaying death.

These are not dissections,
But foreshadowings of the anatomy
That we must one day diagnose,
But of the humility
That we must one day demonstrate,
But of the lives
That we will have the privilege to see blossom,
And wither.

The body is uncovered, exposed, vulnerable in the same way a patient may be,
With our sole responsibility a commitment to dignity,
We seek to preserve it,
With our scalpels.

And some days,
I wonder for which body the tools were really designed,
For on these days,
I leave the cadaver having dissected only my own humanity.

# Keats Society: following Keats

Richard Hughes **Emeritus Professor of Neurology**

**Origins**

The Keats Society rose from the ashes of the Save Guy's Campaign War Cabinet thirty years ago. The modern student needs a little history to understand its origins. In 1982, the medical schools of Guy's and St Thomas' Hospitals merged as the United Medical and Dental Schools, but the hospitals remained separate. In 1992, Sir Bernard Tomlinson reported on London's health service to the Secretary of State for Health. The report recommended diverting resources from hospitals to community care and reducing beds especially in inner London. One of the A&E departments at Guy's or St Thomas' should close, the existing Guy's-Lewisham Trust should split, and a Guy's-St Thomas' Trust be created. Accordingly, the Guy's and St Thomas' Trust came into being in 1993 and the government proposed to close the A&E department and inpatient beds at Guy's leaving only an ambulatory care centre. During 1994 and 1995, the Guy's community rebelled indignantly against the government proposal. Among those resisting the closure were the site review committee, a group of consultants convened by the senior consultant physician, the late Dr RK (Bob) Knight, as a sub-committee of the Medical and Dental Committee and nicknamed the War Cabinet. The War Cabinet met almost weekly during those years. Gold and blue Save Guy's Campaign stickers advertised the Save Guy's Campaign on car windows from Land's End to John o' Groats. Local Members of Parliament from all three main political parties, Simon Hughes, Tessa Jowell and Roger Sims, co-chaired the campaign. Jo Revill published frequent supportive articles in the Evening Standard and others wrote in the national press. A petition praying parliament not to close Guy's captured a million signatures. Fund raising events included a magnificent concert in Southwark Cathedral. Incredibly, even the non-conformist Thomas Guy attended. Donations eventually reached nearly a hundred thousand pounds. The campaign commissioned an alternative proposal from management consultants KPMG and took the government to judicial review. The review was rejected, and the government closed the Guy's A&E department and many of its inpatient beds. Fortunately, important inpatient activity was preserved on the Guy's site and the Guy's and St Thomas' Trust has flourished. When the axe finally fell, the Trust asked the War Cabinet to discontinue its meetings. This it did but its members formed the Keats Society to celebrate Guy's and its most famous alumnus. The Society has now been meeting for more than quarter of a century except during the Covid years when it met by Zoom.

**London meetings**

Bob Knight, a Keats admirer and biographer, organised the Society's first dinner meeting on 22nd May 1996. His handwritten note records the nine poems read between courses and after dinner. The titles ranged widely reflecting the whim of the reader, such as *A Kettle of Thames Fish* by RL Stevenson from a keen angler. There was a preference for humour as in *Jabberwocky* by Lewis Carroll, *Harvest Hymn* by John Betjeman and *A Word to Husbands* by Ogden Nash. Keats's contribution was from a letter to his friend Bailey written in 1818 *Hence Burgundy, Claret and Port, / Away with old Hock and Madeira / Too earthly are ye for my sport.* Twice yearly meetings in London followed the titration of inpatient beds from Guy's to St Thomas',

the closure of the A&E department and the 2005 move of the Evelina Children's Hospital from the Guy's Tower to its own beautiful new building on the St Thomas' site. Happily, renal, orthopaedic, urology and other wards, and flourishing academic departments and undergraduate schools were retained at Guy's. Bob Knight sadly died in 2005, but meetings continued. As time went by, the focus shifted from monitoring the changes in our *alma mater* to enjoying a wider range of poetry.

Like us, Keats lived and worked in London. During his diligent and ultimately successful studies in the Borough, Keats dreamed of escape into the country. While still a student in May 1816, Keats published his first poem *To Solitude* in the prestigious journal *The Examiner*:

*O Solitude! if I must with thee dwell,*

*Let it not be among the jumbled heap*

*Of murky buildings; climb with me the steep,—*

*Nature's observatory....*

When he forsook medicine for poetry, he left the murky buildings and travelled surprisingly far and wide in those coach and horse days. We pursued him by automobile.

**Pursuing Keats**

*Figure 1. Another Time by Antony Gormley erected in 2017 beside Turner Contemporary Museum, Margate*

In July 1816, soon after passing the Society of Apothecaries examination to practise medicine, Keats took his 16-year-old brother Tom on holiday to Margate. There he wrote an ode to his 19-year-old brother George: *Many the wonders I this day have seen.* We followed them there in 2022 soon after the death of Queen Elizabeth II. Our poetry readings included *Floral Tribute to the Queen* by Simon Armitage. Keats took lodgings in town. We stayed at the Walpole Bay Hotel on the shore, remarkable for its museum of Edwardiana. Keats would have been surprised by the larger-than-life cast iron naked Antony Gormley statue which stands Canute-like beside the Turner Contemporary Museum (Figure 1).

In April 1817, Keats travelled on the overnight coach to Southampton and then on by ferry to the Isle of Wight. From lodgings in Carisbrooke, he began his self-imposed challenge to write the 4000-line epic poem *Endymion*. We heard its famous first line *A thing of beauty is a joy for ever* and other excerpts at our visit in April 2013. After only a month, Keats rushed on, by coach again, along the south coast and then north to rejoin Tom in Margate where he stayed until mid- May.

In September 1817, Keats joined his friend Bailey at Magdalen Hall, Oxford. By then, he was composing the third book of Endymion, writing 50 lines a day. In 2010, we dined not at Magdalen but at St Edmund Hall. Our poems included *Oxford Revisited in War Time by Tertius van Dyke: Beneath fair Magdalen's storied towers/I wander in a dream.* During their own trip, Bailey and Keats walked from Oxford the 30 miles to Stratford to visit Shakespeare's birthplace. In 2017, our car journey to Stratford commemorated the 200th anniversary of their visit and allowed us to watch Julius Caesar. One of our poems was *Centenary* composed by Keats Society member, the late Dr David Tong, a talented poet, beginning *Where once the flowers of Nations lay*.

In November 1817, Keats travelled by coach to the Fox and Hounds, Dorking. He spent a week near Box Hill "*where dark yew trees, as we rustle through, will drop their scarlet berry cups of dew*" and finished *Endymion*. We have yet to follow him there.

In March 1818, Keats travelled on the outside of a coach from London to Teignmouth in South Devon. A violent storm tore great elms from the roadside between Honiton and Devon and prolonged his 27-hour journey. He joined Tom

seriously ill with haemoptysis. During the next two months, he wrote and rewrote the preface for *Endymion* and submitted its four books to the publishers. Despite purple passages, it was destined for a hostile reception from the critics. He also wrote *Isabella or A Pot of Basil* in which Isabella keeps her lover's head in a flowerpot. Isabella Jones was a lady with whom he had had more than a passing acquaintance before meeting Fanny Brawne. In our own visit to nearby Dartmoor 200 years later, our poems also took a morbid turn starting with *A dog has died* by Pablo Neruda. Spike Milligan dealt with death with *A touch of humour*. The late Guy's paediatrician, Dr Philip Evans, taught us to cope with grieving in his unpublished *Compassion* which was read at the meeting.

In June 1818, Keats and his friend Brown journeyed to Scotland. They travelled first by coach with Keats's brother George and George's 16-year-old bride Georgiana to Liverpool where the couple boarded ship for America. Keats and Brown continued by coach to Lancaster and then on foot to the Isle of Mull. On the way, they passed through the Lake District and tried unsuccessfully to visit Wordsworth. We followed them there in 2008, stayed in Grasmere, and read poems including *Four seasons fill the measure of the year; There are four seasons in the mind of man,* which Keats had included in a letter to his friend Bailey in March 1818. We reached the Isle of Mull in 2014 and stayed at Loch Melfort near Oban. Keats and Brown had been much more energetic tourists, diverting to places, such as the cottage in Galloway where Robbie Burns was born and even by boat to the north of Ireland. Our poems In Oban included Burns's *Ae fond kiss, and then we sever; Ae fareweel, alas, for ever!* On reaching Mull, Keats and Brown made the arduous 37-mile journey across the Isle of Mull to Iona from where they sailed to Fingal's cave, *Keats's Cathedral of the Sea*, on the tiny island of Staffa. One of our members, the late Professor Stewart Cameron, an indefatigable researcher then aged 80, investigated and reported their route which almost passed his own cottage. On the way south, Keats became unwell and feverish, but this did not stop him and Brown from climbing mist-shrouded Ben Nevis. They parted company in August at east-coast port Cromarty after walking 640 miles. Brown travelled on north, but Keats sailed back, reaching St Katharine's Dock in nine days.

Keats spent the autumn in London looking after his brother Tom, who died of tuberculosis on December 1st, 1818, and writing the epic poem *Fall of Hyperion* about the ancient Titan gods. In January 1819, he escaped by coach to Chichester in time for *The Eve of St Agnes* on the 21st, the title of the lovely 42 verse poem which he wrote there. We read it together in September 2024, after dinner at the delightful Millstream Hotel in nearby Bosham. We found the recent statue of Keats at a busy crossroads in central Chichester (Figure 2). We visited the Roman palace at Fishbourne by car but could not match the long walks there and along the coast made by Keats and Brown before they returned to their Hampstead home by early February 1819.

*Figure 2. Statue of John Keats erected in Chichester in 2017*

In June 1819, after four months in London writing *La belle dame sans merci* and some of his most famous odes, Keats took the coach with Brown back to the Isle of Wight and spent two months writing a play, Otho the Great, and working on *Fall of Hyperion*. According to his most recent biographer, Nicholas Roe, this is also when he wrote *Bright Star*, the title of Jane Campion's 2009 film starring Ben Whishaw. In August, Keats moved on to Winchester where he stayed near the cathedral. We joined him there in September 2009. On September 10th 1819, with the long poem *Lamia* completed, Keats travelled back to London to persuade his guardian to release funds for his financially distressed brother George in America and to wrestle with his publishers. Nine days

later, inspired by memories of the downs around Winchester, Keats composed *Ode to Autumn*, beginning unforgettably with *Season of mists and mellow fruitfulness, / Close bosom-friend of the maturing sun.*

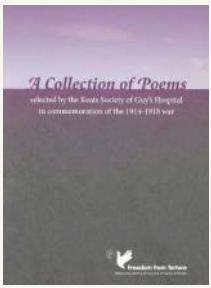
**Final journey**

By Autumn 1819, Keats's travelling days were over. Tuberculosis overtook him and he spent a year in London until 17th September 1820 when he sailed from Gravesend for Rome with his artist friend Severn. Storms beset their ship in the channel, and they put in at Poole and probably again in Devon, where Charles Causley's poem saw *Keats at Teignmouth: the crystal poet/ Leaning on the old sea-rail;/ In his breast lay death, the lover, / in his head, the nightingale.* From there, they had a calm voyage to the Bay of Naples where they were quarantined on board for 10 days because of a typhus outbreak in London. On 31st October, they landed and stayed in a grand palazzo in Naples. We followed them in 2015 and stayed in the Imperial Hotel Tramontano, Sorrento which advertised itself as having had Keats as a guest (as well as Byron and Shelley). Upon enquiry, the evidence of these alleged visits had been destroyed in the war. Our poems at dinner included Longfellow's description of Keats's sadly shortened life: *The young Endymion sleeps Endymion's sleep; / The shepherd-boy whose tale was left half told!* Modern coaches and good health allowed us to visit Pompeii, Paestum and Capri but Keats and Severn could only leave on 8th November 1820 for the week-long bumpy carriage ride to Rome.

Upon arrival in Rome, they installed themselves in a flat on the Spanish Steps where Severn nursed Keats devotedly as he became weaker with recurrent haemoptysis and venesections, fever and increasing breathlessness until death on 23rd February 1821. We visited Rome twice in his honour, in 2002 and in 2009. We cheered ourselves with his sonnets and laid flowers on the grave in the Protestant Cemetery inscribed with his own sad epitaph

HERE LIES ONE WHOSE NAME IS WRIT IN WATER.

**Further Journeys**



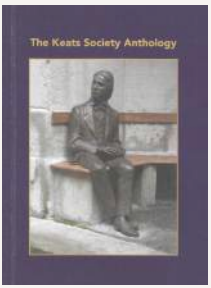




*Figure 3 (left). A Collection of Poems published in 2018*
*Figure 4 (right). The Keats Society Anthology published in 2020*

Our pursuit of Keats has been companionable, enjoyable and educational. We have left in our trail two privately published anthologies (Figures 3 and 4). Although Rome was his last journey, we have dared to imagine places he might have gone. In 2012, we went to Laugharne in Carmarthenshire, home of Keats fan, Dylan Thomas. We read *Under Milk Wood*, with members of the Society portraying the cast from Polly Garter to the Reverend Eli Jenkins. In 2023, we took Eurostar to Paris, where Keats's brothers George and Tom had gone by ship and coach in 1817, two years after Waterloo. Our poems continued the Welsh theme ranging from *Language Difficulty* by Ann Drysdale (*Welsh is a mad language; there are no words in it*) to *The Bright Field* by RS Thomas (*I have seen the sun break through/ to illuminate a small field/ for a while*). We are left musing where else Keats might have gone. For us, he has been an inspiration for whom a more suitable epitaph would have been Horace's poem

EXEGI MONUMENTUM AERE PERENNIUS.

I have erected a monument more lasting than brass.


# Clinical Practice from a Humanities Perspective

Khushi Patel **MBBS3**

CLINICAL PRACTICE. This concept fundamentally boils down to a doctor treating their patient. The simple human act of giving. Before all our fancy medicines and advanced technology, healthcare was just humans caring for each other, it is what has allowed a new day to dawn on this planet.

Medical school teaches boundless knowledge ranging from anatomy to physiology. Yet the hardest to teach, but the most important is: humanity.

Humanity is what allows a patient to open up to their doctor, it is how untold patient stories are heard. With this in mind, I had the privilege of delving into the minds of Dementia patients on my longitudinal general practice placement in Stage 2.

Our group at Forest Hill Road Group Practice completed the Clinical Humanities assignment. Our project looked at social prescribing in Dementia patients. The reason we chose this patient demographic was because, after researching, we found that 944,000 people are estimated to be living with dementia in the UK. In South-East London alone (our GP's local area), 10,521 people aged over 65 have been diagnosed with Dementia. Our GP has 37 patients on the dementia register out of 11,000 patients registered to this GP.

We were able to get an insight into the humanities perspective by interviewing Dementia patients, going on home visits to our patient bank, as well as interviewing dementia carers and their family. Our GP group had a very long conversation with an 80-year-old male who had been diagnosed with Alzheimer's disease 2 years prior. This gave us an insightful perspective across a range of areas. We discovered the symptoms he experienced before the diagnosis, we asked about his whole diagnosis experience, we discovered his social history, we learnt about the benefit of support groups, we hearda bout the changing relationships with his family and friends, as well as his experience of loneliness and being misunderstood. Clinical practice has sadly evolved into brief 10 minute consultations, so having the opportunity to further explore the patient's story allowed us to come at the patient from a humanities perspective.

We contrasted this point of view by also exploring the medical side and evaluating the effectiveness of social prescribing in Dementia patients. We used various research methods. We augmented information gathered from the National Health Service, interviewing GPs, reading through GP consultation notes, and interviewing the social prescriber. I was lucky enough to gain some valuable insights from Dr Bogdan Giurca (Clinical Lead and Global Director at the National Academy for Social Prescribing), and Dr. Jo Martin (NHS specialty advisor for pathology and past president of Royal College of Pathologists).

I even took the initiative of carrying out an audit at Forest Hill Road Group Practice, investigating the number of Dementia patients that had been referred to see the social prescriber after being diagnosed. Shockingly, a mere 6 out of 37 were actually offered this service. Clearly, systemic issues exist which lead to the medicalisation of Dementia. I think the guidelines should change, perhaps stating that all Dementia patients should be offered a referral to the social prescriber after their diagnosis.

For our final piece, we decided to showcase our patient stories through a visual representation of the mind of a Dementia patient. 1 half represents the patient perspective: colourless, housebound, isolated from the community, patronized by charities portraying them with no personality. We have hung quotes from patients that we interviewed, scrunched up medical notes which have medicalized their humanity, made puzzle pieces which represents the feeling of Dementia as having the puzzles but not the final picture on the box, and labelled bathroom/kitchen doors as their memory loss starts to estrange them in their own home. The speaker plays aloud the most poignant quotes from our interview to make our piece more interactive. The box is split with a transparent window representing the world the patient can see but doesn't feel he belongs in. The other half represents the medical and social community perspective: colourful, crowded and loved. We hung quotes from healthcare professionals in the NHS on the medical perspective of Dementia, also including how they feel care can be improved. We used Lego to show the vast number of healthcare professionals involved in the care of Dementia patients. We stuck pictures on the wall to inform patients of local services in the community offered through social prescribing such as Link Age Southwark Day Centre and Horniman museum gardening club. The prescription list shows that Dementia care can be too medicalized and could benefit from a shift towards social prescribing. The box of dignity pills was inspired by my trip to the Wellcome Collection, demonstrating that patients often lose mental capacity and their basic right of patient autonomy, placed in the hands of a power of attorney, so their care is medicalized and impersonalised beyond their control. If they cannot even claim their mind/life for themselves, how can dignity be maintained, can it be socially prescribed? The speaker plays aloud a description of the benefit of social prescribing.

Some challenges we faced during our project was communicating with this patient demographic. We initially decided to send out a survey to the dementia patients to find out about their experiences and feelings anonymously, however we quickly realised this would not work as most of our patients did not have access to a mobile phone to receive the survey. We overcame this challenge by going on home visits to our patient bank and bringing Dementia patients into the GP to interview, which worked well. The success of our project was the way our team worked together, all contributing to the project, using open communication.

In conclusion, we were able to learn clinical practice from a humanities perspective by just opening our hearts and minds to a world of possibility, enabling the patients to share their unique stories. I hope that medical care can start to move towards social prescribing, humanity at its finest.

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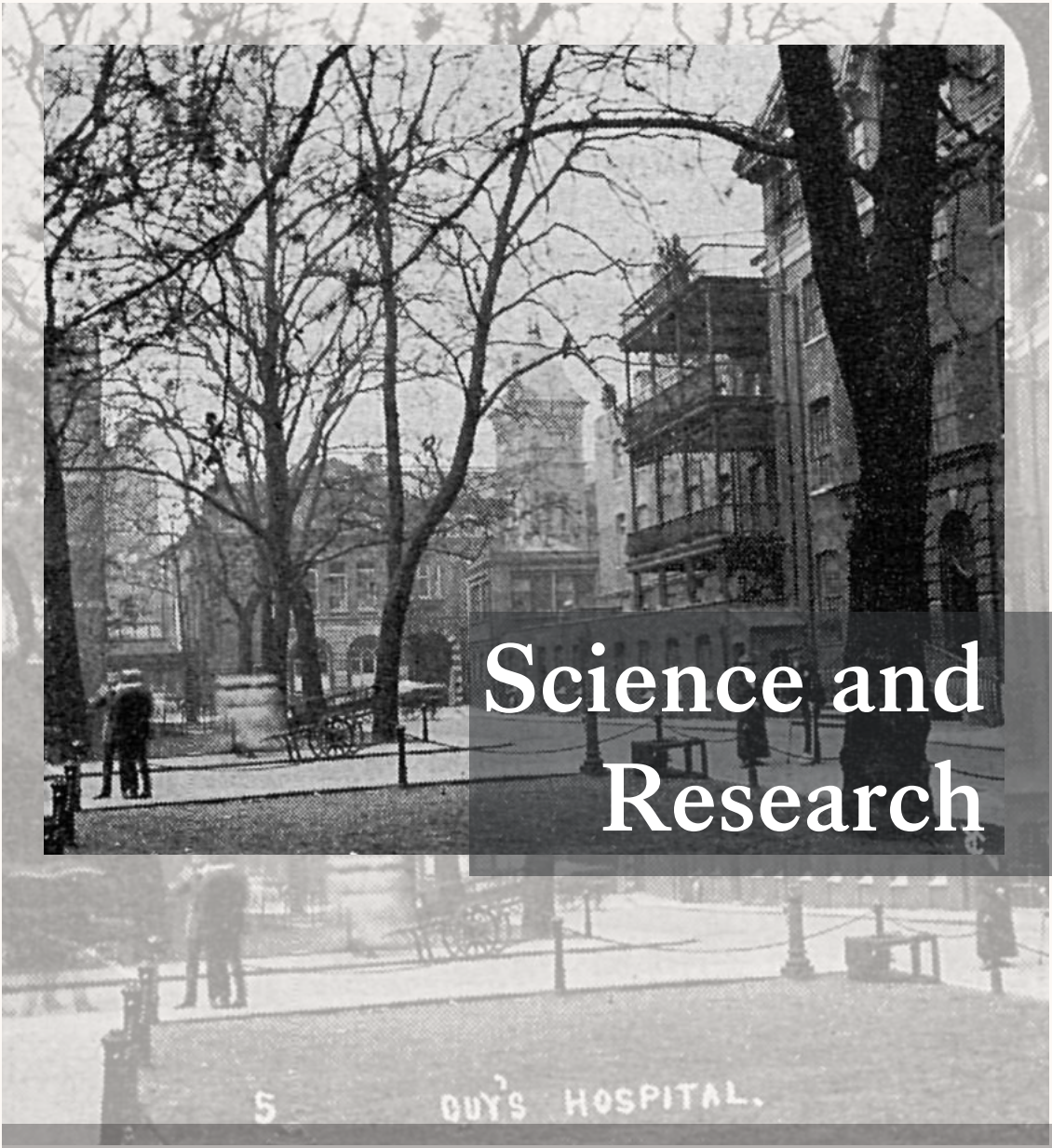



# Science and Research

# #1 Do no harm... to the planet

Sammer Atta **MBBS4**

DOOMSDAY. I often ponder whether such a day would arrive in our lifetimes: a sudden, drastic change in the world as we know it. Some could argue that there have been many doomsdays documented through history: from the Mongol's conquest to World War – and for some, the COVID pandemic. The word "Doom" originates from the old English word "dōm", meaning statute or judgement. I would like to discuss, what I believe, is the impending "doom" of our generation: the climate crisis, and the implications it may have for healthcare. Perhaps such a crisis is inevitable: a divine punishment for the sin of industrialisation. Whether it be through a religious context, or from an atheistic perspective – it is without a doubt that great inevitable change awaits: with the world's fossil fuels due to run out, and the temperature predicted to increase by 3 degrees within the next 150 years, we could truly be racing towards Armageddon.

The consequences of a changing climate introduces a variety of problems in healthcare from a spectrum of issues, and in the following paragraphs I will aim to draw a picture of what a globally warmed world may look like.

***A Possible Future.***

*I vividly remember my 8-year-old self waking up to a blinding white blanket of snow covering everything as far as my eyes could see. "The winter of 2010 in England saw the earliest widespread snowfall since 1993, with snow falling as early as 24 November." But that remains a distant memory—one that future generations will struggle to relate to. The idea of a "white Christmas" is now a miracle, as some of the hottest years on record have occurred in the past 25 years. Heatwaves are now 30 times more likely, and in 2022 alone, more than 4,500 preventable deaths were attributed to heat stress, with numbers rising significantly in the years since.*

*The tenth news report of the week details yet another flood, bringing with it devastation and loss. Lives have been lost—some drowned, others injured, some electrocuted. The risk of infections from previously uncommon pathogens has skyrocketed, particularly here in the UK. The psychological burden is immense, with rising cases of depression, anxiety, and PTSD in affected communities. Disruptions to healthcare services and communication leave the most vulnerable stranded, as emergency services struggle under the strain.*

*Higher temperatures bring an increased risk of dehydration and heatstroke, but also a surge in chronic illnesses—cardiovascular, respiratory, cerebrovascular, and renal diseases—all of which disproportionately impact society's most vulnerable. The burden on the healthcare system continues to grow, with waiting times reaching record highs.*

*Vector-borne diseases are no longer a distant threat. With warming climates creating ideal conditions for mosquito populations, infections such as malaria, dengue, and Zika have now reached the southern parts of the UK.*

*Food supply chains are disrupted by extreme weather and environmental destruction, leaving those in food-insecure households at even greater risk of chronic health conditions. Rates of diabetes, hypertension, arthritis, and chronic pain have surged, particularly in impoverished areas.*

*Centuries of fossil fuel burning and rising global temperatures have led to worsening air pollution, increasing rates of cardiovascular and respiratory diseases. Once again, those with pre-existing conditions and those from lower socioeconomic backgrounds suffer the most.*

This is a reality that we could be heading towards – these should not be considered distant possibilities, but rather an unfolding crisis – one that our healthcare system should prepare for and work to prevent.

It may not all be "doom and gloom," as the recently retired NHS England also aimed for a "net zero" carbon footprint by 2040. But how realistic are these goals given the concurrent challenges faced by the system? Perhaps there is room for discussion on how we, as healthcare professionals, can drive a more sustainable future.

I am sure many of us have paid witness to the various forms of unsustainable wastage that occurs in hospitals: from surgical equipment being thrown away after a cancelled procedure, to the hundreds of needles thrown away due to failed cannulas by eager medical students. I was surprised, that in one of the trusts I attended to see the use of an old-fashioned metal syringe: to which I enquired, "I haven't seen that before... why is that being used?", to which I was met with "because it is sustainable!".

A quick search reveals that the GMC explicitly underscores the importance of sustainability: "You should choose sustainable solutions when you're able to, provided these don't compromise care standards." We all enter this profession to prioritise patient care, so it's no surprise that sustainability often becomes a secondary concern—perhaps, for some of us, it's as simple as deciding which bin to throw a sandwich wrapper into. *A small act, a passing thought—but is that truly enough to shield us from this dark future?*

# From Insulin to Independence: Stem Cells Reverse Woman's Type 1 Diabetes

Ananya Dangra **BSc Biomedical Sciences**

A twenty-five-year-old woman afflicted with severe type 1 diabetes received an infusion of reprogrammed islet stem cells in an experimental trial. Three months later, she is successfully producing enough insulin to stay within the normal physiological range.

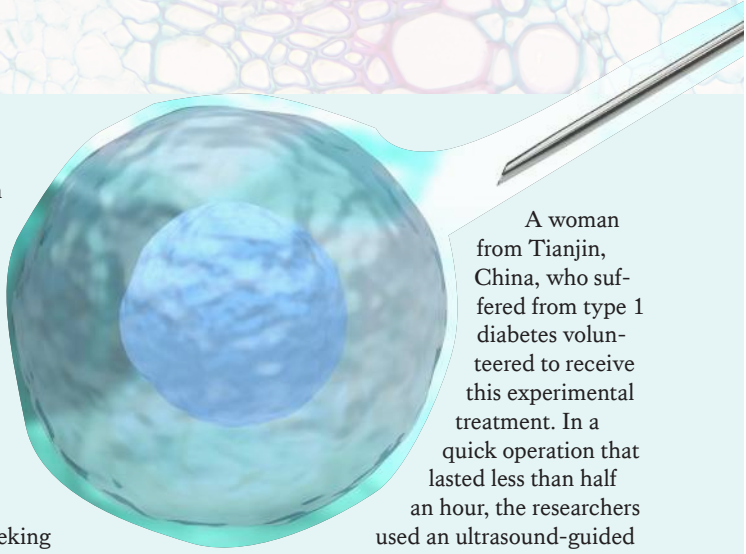
It's fascinating how science keeps pushing the boundaries of what is possible. I often find myself pondering that thought. What is commonplace today was unfathomable decades ago – this is especially true for type 1 diabetes. As medical innovation surges to new heights and groundbreaking research unveils new treatments, could your next cure come from... yourself?

Type 1 diabetes is a chronic condition that affects the insulin-producing beta cells within the pancreas. In this condition, the body's own immune system attacks the beta cells, causing their destruction. This may be due to different factors, such as viruses or genetics. Type 1 diabetes is therefore an autoimmune disease and occurs mostly in children or adolescents, but may also develop in adults. It currently accounts for around 5-10% of all diabetes cases worldwide.

It's incredible to think how far we have come in treating type 1 diabetes. For many years, a type 1 diabetes diagnosis meant a lifetime of insulin injections and hospital visits. Despite decades of research, there is no cure for type 1 diabetes – but groundbreaking results in a recent clinical trial using stem cells could change that.

Stem cells are undifferentiated or partially differentiated cells that possess the ability to self-renew and differentiate. Stem cells can be derived in vivo, such as embryonic stem cells (ESCs), which are derived from the inner cell mass of the blastocyst. Stem cells like mesenchymal stem cells (MSCs) may be found in adult tissues, such as the bone marrow, muscle, liver and adipose tissue. However, MSCs have a very limited differentiation capacity, which hinders their clinical use. ESCs, while having a greater range of differentiation, are subject to much ethical scrutiny, which also limit their use.

A solution came forth in 2014 when Shinya Yamanaka and his colleagues successfully reprogrammed adult cells into pluripotent stem cells using transcription factors, which can differentiate into nearly all cells and are derived from any of the three germ layers. The discovery of induced pluripotent stem cells (iPSCs) was



a landmark breakthrough in stem cell research and won Yamanaka the Nobel Prize for that year. The impact of this cannot be understated – Yamanaka's discovery revolutionised stem cell research, which had previously been limited by ethical constraints. It is, in my opinion, one of the most impactful discoveries in cellular biology till date.

In June 2023, researchers from Peking University in Beijing extracted stem cells from three people with type 1 diabetes and used that as the basis for their treatment. They first reverted them into a pluripotent state so that they could differentiate into almost any cell in the body, based on Yamanaka's technique to reprogram stem cells. However, they altered the protocol slightly – instead of modifying gene expression via protein introduction, they instead exposed the cells to small molecules, which offered more control over the process and ensured the cells would differentiate correctly. The researchers then used the IPSCs they generated to create 3D clusters of islets. These cells were tested in mice and non-human primates for safety and efficacy before being tested in humans.

A woman from Tianjin, China, who suffered from type 1 diabetes volunteered to receive this experimental treatment. In a quick operation that lasted less than half an hour, the researchers used an ultrasound-guided injection to insert approximately 1.5 million islets into the woman's abdominal anterior rectus sheath. This is a novel method of transplantation, as islet cells are usually injected into the liver, where observation is difficult. However, by introducing them to abdominal muscle, the researchers could use magnetic resonance imaging (MRI) to observe the cells and their engraftment to the patient. Findings also seem to suggest that transplanting islet cells in the abdomen allows easier access and enhances graft retention on site.

A stringent monitoring process followed after the operation. The woman's peripheral venous blood was regularly tested for HbA1c (to

monitor blood glucose levels) and C-peptide (to monitor insulin levels) using a chemistry analyzer. Two and a half months later, the woman was producing an adequate amount of insulin to live properly, eliminating the need for artificial top-ups. She also stopped experiencing dangerous blood glucose fluctuations around this time. After four months, she was producing enough blood glucose to remain within the desired range for 98% of the day.

I think this is an amazing example of how stem cells are redefining medical research and how that might be translated into a viable treatment. However, even though these results are groundbreaking, they need to be replicated in more patients to be considered reliable. Though the study was very thorough in its methodology, there are several limitations that prevent it from being quickly scaled up. As the study is still ongoing, further monitoring is required to assess whether the islet cells remain viable for long periods of time. Secondly, as the woman who received a successful transplant was on immunosuppressants for a previous liver transplant, it is unknown whether autologous islet transplants in this manner also necessitate the use of these drugs, though researchers say this is likely as type 1 diabetes is an autoimmune disease. Furthermore, this study was conducted on only three patients, which prevents these results from being generalised.

Using transplants engineered from the patient's own cells have unique advantages as they will not be rejected for being 'foreign' by the host organism, but research in this field is slow as it is difficult to commercialise and scale up. Even so, pharmaceutical companies are looking to trial this novel treatment using donor stem cells. One such clinical trial, led by Vertex Pharmaceuticals in Boston, saw a dozen patients with type 1 diabetes receive islet cells manufactured from donated embryonic stem cells. The patients were also administered with immunosuppressants to avoid transplant rejection. The resultant data looks promising – all the participants were successfully producing insulin after three months when glucose was present, and some had even become insulin independent. Following this, Vertex launched another trial to test a device in which donated stem cells were placed to prevent immune rejection and remove the need for lifelong immunosuppressants, which is currently ongoing.

Stem cell therapy offers a groundbreaking approach to treating type 1 diabetes, with the potential to restore natural insulin production. Scientific advancements are bringing us closer to a future where insulin injections may no longer be necessary. Ongoing research and clinical trials continue to show promising results, fueling hope for millions affected by the disease. By harnessing the power of regenerative medicine, we may soon achieve a long-term, sustainable cure. Collaboration between scientists, doctors, and patients is accelerating progress toward this life-changing solution. With each breakthrough, we move one step closer to making type 1 diabetes a thing of the past. Could stem cells be the key to finally curing this disease once and for all?

*References available on request at gktgazette@kcl.ac.uk*

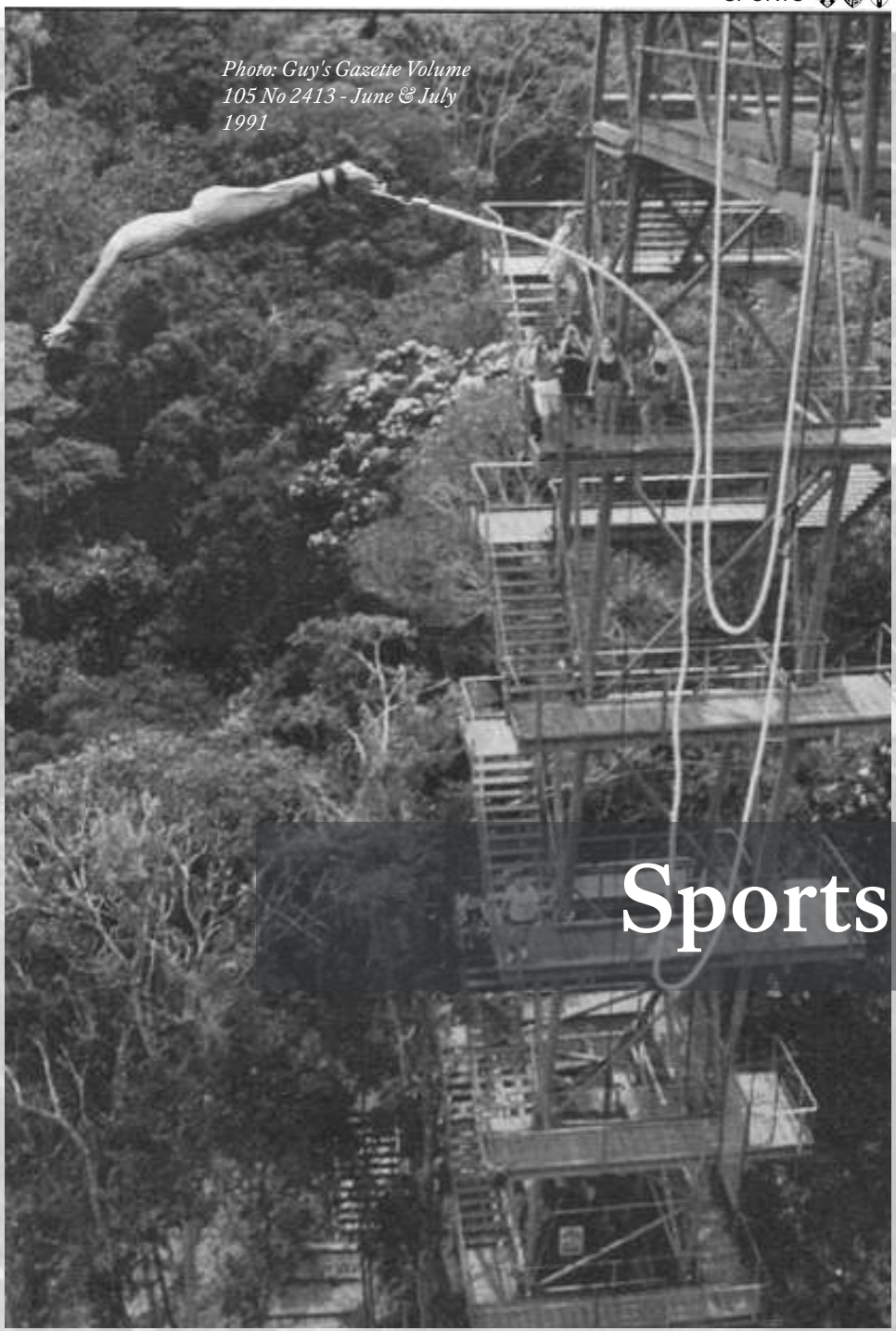


*Photo: Guy's Gazette Volume 105 No 2413 - June & July 1991*

# Sports

# IN CONVERSATION WITH GKT HOCKEY CLUB: VARSITY 2025

Nayan Perera **MBBS2**

Fresh from both the GKT first XI teams winning varsity at Lee Valley against UCL Medics (RUMS), GKT Hockey Club is heading towards the end of another successful season. The intense London university rivalry was apparent throughout the evening of March 21st, with creative chants exchanged by the students on the side and fierce hockey played out by the first XI players on the impressive pitch. To recount the events of the biggest game in the London hockey calendar, we interviewed four students who played in the two games, the men's and women's club captains and two players who made their varsity debuts.

## Juliette Zeilmaker

**N: How did it feel making your first varsity appearance in your first year at the university?**

J: Nerve-wracking, there was a lot of anticipation coming up to this game, so definitely a mixture of excitement and nerves.

**N: The game must have been tense, especially at the start, were you nervous during it?**

J: Honestly, when you're on the pitch, this big event everyone's been counting down the days to turns back into a game of hockey, something we've been playing every week. The tension peaked just before pushback, but definitely eased as we got into the flow of the game.

**N: What was your first thought after winning?**

J: That I wasn't surprised that we did!

**N: What was the best moment of the day for you?**

J: Seeing my family in the stands after thrashing RUMS.

**N: You are of course very familiar with the significance of varsity for GKT hockey so what were your thoughts going into the game?**

E: I'll be completely honest, I was 'bricking it' as you'd say. I've gone up in front of that crowd year in, year out, and it really does not change how used to it you are. I think however you walk out onto the pitch your first year playing, sticks with you until you leave. I think this year though, for the first time I felt content regardless of the result, before the game had even begun, this team had absolutely smashed it this year and I knew I would be proud to be surrounded by them regardless of the result - even if that ended up not mattering!! (3-0 who??).

**N: How did you feel during the game with the club's support at the ground?**

E: Nothing matches it, nothing comes close. Having played at Lee Valley before, in major tournaments and pitches across Europe there is something about being watched by your friends and family, even if half of them are incoherent, that can't be touched. Nothing comes close to knowing people are there to support you, maybe not because they're die-hard sports fans, but because of the GKT hockey family that has been created over the years.

## Ella Job, Women's Club Captain

**N: Was it even more special with both the GKT teams winning varsity this year?**

E: My first ever Varsity was in Covid, and so we had no supporters, therefore it was just us and the men's 1s team on the pitch, in the crowd and afterwards. I think it was therefore so nice to come full circle, especially with Jamie Krens, Sam De Vaux and Lauren Carter (who are the only remaining players from my first year) and watch us both take the win, taking major steps for the ladies club over the past years.

**N: As club captain this year, how do you feel about the future of GKTLHC after this varsity win?**

E: I honestly think the future is looking great for us, with a promotion taking us up to Tier 1 next year, becoming the official KCL 1st XI for the first time ever and having reached the BUCS semi finals and the LUSL cup final, there really is nothing that I think this team couldn't achieve if they put their minds to it. However, beyond that, this team is an incredible family and I really believe that is reflected throughout the rest of the club. I hope, regardless of the direction the quality of the hockey goes for this club, GKTHC will always be the biggest family, attracting freshers from any campus, for years to come, as I know years after this varsity win, I will still forever be GKTill I die.

## Sherief Benamer, Men's Club Captain

**N: This would have been a game you had been preparing for a while before, what were your thoughts going into the game?**

S: I was a mixture of both nerves and excitement heading into the game. It was my first time playing varsity, and having experienced it previously as a supporter I knew it would be a special occasion to play in. I was also aware that GKTMHC have not lost a varsity hockey match in more than 9 years!

**N: How did you feel during the game with the atmosphere at Lee Valley?**

S: The atmosphere was genuinely fantastic, walking out onto the pitch with everyone cheering was a feeling I will never forget. As was, the celebrations at the full time whistle, the stuff of dreams really!

**N: GKT has a strong history in hockey varsity, how did it feel to get another varsity win?**

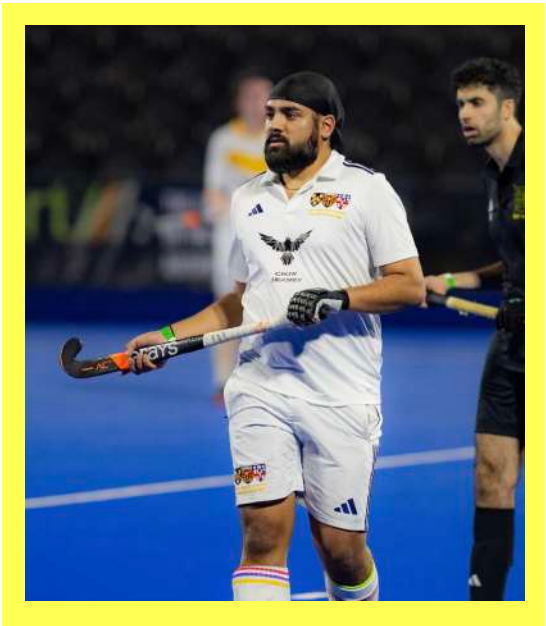
S: It was great to get another varsity win. Winning varsity has almost become expected at GKTMHC after the successes we've had in recent years, but it was amazing to actually play and help get the team over the line. RUMS are a always a worthwhile opponent and commiserations to them.

**N: GKT won double success on Friday, was it special with both the GKT Hockey Club teams winning varsity this year?**

S: Of course it is special to have both the mens and women's teams win their varsity this season, it made the celebrations after the games all the sweeter.

**N: We know how important varsity is to GKT Hockey, how do you feel about the future of the club after this year's results?**

The club is in a great place and I am very excited about its future. I feel it goes from strength to strength each year, and i can't wait to track the progress as an alumnus.



**N: How did it feel making your first varsity appearance?**

S: Being given the opportunity to play in my first varsity was incredible, I've been part of the club for the last 3/4 years and I've always watched from the stands so being on the other side was quite a surreal experience. I am really grateful to the club, captain and coach for giving me the chance to be part of our varsity squad and it is a memory I will cherish for the rest of my life!

**N: Was the game tense and were you nervous?**

S: I wasn't nervous about the game really but when RUMS had a short corner at the end of the match, I did worry that we would have potentially gone to flicks after holding on to our slim 1-0 lead the whole game. I was standing next to Sherief at the halfway line as we prepared to run back, and I think he saw the fear in my face but he reassured me it would be ok and like he said we pulled through. Although, when you have the incredible support of the GKT Men's and Ladies hockey club cheering you on, there was nothing to worry about in the first place as their energy and passion was the only thing we needed.

## Sahib Duhra

**N: What got you through the long spell of 0-0 before the GKT goal?**

S: The crowd, the team and the plan! Our coach Buttery and captain Scott had a well formulated plan in place to ensure our success and all we had to do was follow the plan and make sure we did all our different roles across the pitch. We always had the talent in the squad and we all knew it would be a matter of time before someone broke RUMS down and luckily for us, Rens [Mijnhardt] was the man to get the job done.

**N: What was your first thought after winning?**

S: Time to celebrate with the boys, I couldn't wait to get off the pitch and just embrace all my friends in the crowd who had come to cheer us on. There is a quote from the Persian poet Pishli, "Sometimes it's okay to lose, but it feels so much better when you win". I think I was just grateful in the moment that we had gotten over the line and continued the tradition of beating RUMS.

This year's varsity made plenty of new memories for players, friends and families. It was an excellent showcase of the benefits of sporting competition between the London universities and the importance of GKT Hockey Club and the wider GKT sporting community.

*Medics' Hockey London Varsity Series was at Lee Valley Hockey and Tennis Centre on Friday 21st March 2025.*

# Guy's Hospital RFC Varsity Report 2025

Peter Hammond **GHRFC Media Secretary**

*RUMS vs GKT Rugby Varsity 2025 took place Wednesday the 26th of March at 7pm at Eton Manor RFC, E11 2JA*

What was supposed to be a routine kick-off turned into early chaos as the match had to be brought forward by 30-minutes, thanks to JJ instructing Freddie to book the referee for the wrong time. With a shortened warm-up, we took to the field, eager to defend our title against a fired-up RUMS side.

The opening minutes saw Guy's establish an early lead, as Harry Sillence Coolly slotted a penalty to put us 3-0 ahead. However, RUMS responded with intensity, piling on the pressure and breaking through our defence to go 15-3 up.

Just as momentum seemed to be slipping away, Freddie – determined to make an impact – burst through for his first-ever try for Guy's, closing the gap to 15-10 at halftime.

We started the second half with renewed energy, and Louis quickly found his way over the try line, levelling the score at 15-15.

Unfortunately, our joy was short-lived as Kai suffered a nasty tackle that left him with a broken collarbone, forcing him to leave the field.

RUMS capitalized on our temporary disarray to regain the lead, but once again, Louis stepped up to cross the whitewash and equalize at 20-20 with ten minutes remaining.
With just three minutes left on the clock, RUMS struck again, sending nerves skyrocketing on the Guy's sideline. The clock wound down, and with the final play of the game, we won a crucial penalty.

Opting for a lineout in the corner, Harry Sillence, under the mistaken impression that we had penalty advantage, went for an audacious Crossfield kick.

What should have been a questionable decision turned into a miraculous stroke of fortune – the ball bounced backwards in the dead-ball area, where Peter reacted fastest to scoop it up and score. The wide conversion was missed, leaving us deadlocked at 25-25 at full-time.

KCLSU, determined to crown a definitive winner, insisted on a penalty shootout. What followed can only be described as a spectacle of dubious kicking and officiating.

Despite the uncertainty surrounding some of the calls, we held our nerve, slotting enough kicks to emerge victorious. With that, Guy's were crowned champions once again, retaining the Cup for a second consecutive year.

**Teamsheet**

1. Freddie Spencer
2. Toby Donelan
3. Manos Andreakis
4. Henry Chamberlain
5. Luca Marsella (VC)
6. PJ Mason Smith
7. Jack Wakeling
8. Suyog Naharki
9. Toby Davies (C)
10. Harry Sillence
11. Alex O'Hara
12. Louis McKie
13. Kai Ho
14. Vamsi Muddada
15. Kai Chilvers

**Impact Players**

Lando, Tom Emery, Oli Rees, Albert Gulliford, Caleb Adamu, James Farrell, Roshan Naidoo, Peter Hammond

# Mind Over Medals

Alisha Sharma **BSc Biochemistry**

With 11 Olympic medals, 30 world championship medals, TIME's 2021 Athlete of the Year accolade, and five elements named after her, Simone Biles is regarded as the greatest of all time in sport. With big names like Michael Phelps, Serena Williams, and Stephen Curry watching her compete, it's safe to say Biles is your favourite athlete's favourite athlete!

Simone Biles's competitive career is characterised by winning and dominating the gymnastics field. However, her decision to withdraw from the Tokyo 2020 Olympics shocked everyone. It was a 'discrepancy' in her trend.

What unfolded, however, revealed a new perspective on mental health and its impact on even the most seemingly unshakable elite athletes. After Biles debuted in the 2016 Olympics, all eyes were on her for the 2020 Games. Could she top her gold medal wins in individual events and the all-around again after four years?

Ultimately, Biles made headlines, but the reason was unexpected. During the team all-around event, Biles attempted the Amanar vault: a round-off entry onto the vaulting table with two and a half twists in a back salto position. However, Biles seemed to struggle with twisting in the air, completing only one and a half twists and nearly falling on landing. The disorientation Simone Biles experienced is referred to as the "twisties."

Commonly encountered by gymnasts, the "twisties" mean feeling lost in the air, which causes them to lose their sense of space. Consequently, the gymnast may either fail to twist or perform extra twists unintentionally. They can land unsteadily in both scenarios, making it challenging to execute a move they've trained for days, even years, leading to a mental block.

After announcing her withdrawal from most individual events, Biles faced public condemnation. NBC reported how critics branded her a "national embarrassment" and "a quitter." Such remarks overlook the years of demanding work athletes invest in competing at this level and promote an unhealthy "win or nothing" mentality.

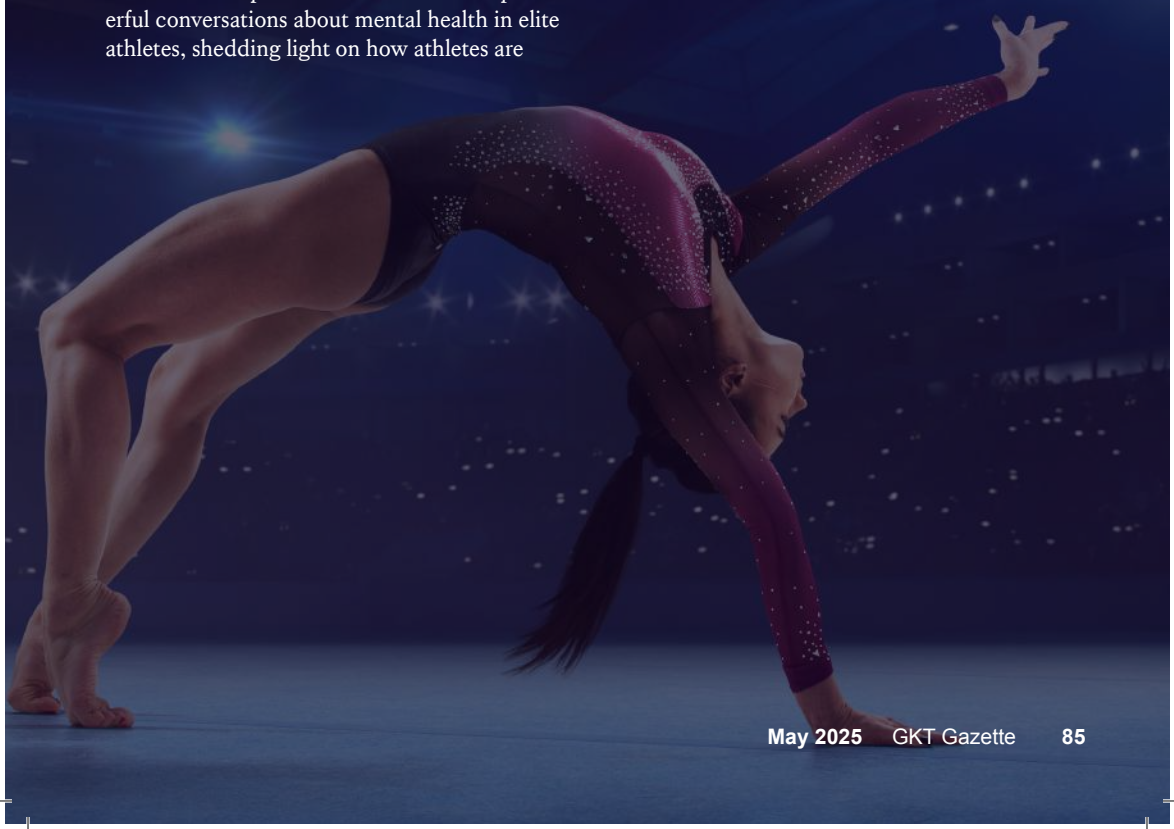
With the world's pressure on her shoulders and her selfcriticism, it is difficult to continue, but Biles knew where she stood. "Put your mental health first; it doesn't matter if you're on the biggest stage. That's the most important medal you can win," she stated during her conversation with NBC Sports.

Fortunately, Biles was not alone. Many gymnasts and athletes who have found themselves in similar situations came online to support Simone Biles's actions and commend her strength in battling negative remarks. Biles even took to her own Instagram to educate others about the "twisties," explaining how she had no idea how and when she would land and how detrimental this condition is on a competitive, hard surface. Her decision is a testament to her courage and how "walking out was her biggest win," she expressed to Brené Brown at the Simmons Leadership Conference.

Simone Biles opened the doors for more powerful conversations about mental health in elite athletes, shedding light on how athletes are human beings, too, and not merely performers. However, the impact of mental strain extends far beyond sports.

Students pursuing bioscience degrees often face academic pressure, leading to burnout, anxiety, and difficulty in thinking clearly under stress. A very fine line exists between pushing oneself to maximum capacity and recognising when one's body needs to give in. In the medical field, surgeons and medics, much like elite-athletes, face situations where split-second decisions have life-altering consequences.

Choosing to step back to prioritise mental health is a difficult decision, especially in professions where the culture is driven by prioritising the team's success. However, understanding that protecting yourself at a vulnerable time – rather than pushing through at the cost of someone's health – is more important than any success one could hope to obtain.



# Dr David Brown Obituary

Written by SJC, TFW, RJC

*David Brown BSc, MSc, PhD*
*b 27.12.1940- d 13.07.2024*

Dr David Brown died on 13th July 2024. He joined Guys Dental School in 1972 as lecturer in Dental materials, went on to senior lecturer and head of department but will be remembered fondly as a long-term dean of admissions for the school and for his teaching. Dental materials were not, perhaps, the favourite subject for students but David had a rare ability to make the teaching of materials interesting, relevant and fun. His teaching was always memorable, and he had a somewhat risqué sense of humour, which appealed to the BDS students of the day: uncured resin composite deep in a cavity will always have a 'soggy bottom' to generations of Guy's graduates.

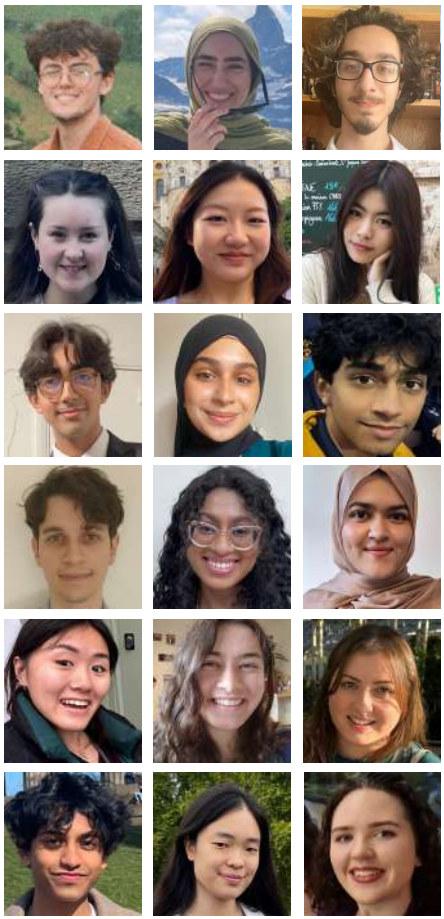
He had a lovely sense of humour, enjoyed by both his colleagues and students. He explained his degrees as representing B.....t, More B.....t and 'piled high and deep', showing his self-deprecating and naughty sense of humour.

Brought up in Southport, David became a postdoctoral researcher in metallurgy and materials science at Manchester University and in 1968 he became Warden of St Anselm Hall. He was central to Hall life, offering hospitality at almost any time to all and sundry. This style of hospitality was repeated when he moved to London and became vice warden at Hughes Parry Hall in the University of London in 1972 and began teaching material science to dental students at Guys Hospital. He continued in his role of supporting students with kindness and generosity when he became Dean for admissions in about 1982. David became Dental Sub-Dean, followed by Vice Dean posts for admissions and then external affairs at the United Medical & Dental Schools of Guy's, St Thomas' & the Royal Dental School, or UMDS. He continued this work following the merger with Kings, or as it was more snappily originally called, GKT - 'with ice and lemon'. He was very much the welcoming face of the institute for visiting students and faculty, ably assisted by Karamjit Ryait, his imperturbable secretary.

Many of David's former students will always remember his lectures and innovative overhead projector slides with a large orange pointer. His

teaching methods were gloriously 'old school' with dynamic, multi-layered overhead projector sheets. When lecturing on a post grad course in Norwich he found, laying on the lectern, the famous orange hand. The whole audience roared with laughter when he picked it up and used it, which surprised him somewhat, but he then used it thereafter as his 'signature'. He was much in demand for his post grad and BDA lectures, delivering the subject with great wit and pragmatism.
Around about 1984, he had a serious heart operation which involved the replacement of one of his heart valves with a mechanical artificial valve. He treated the very serious operation, his recovery and his ongoing approach to life on a completely dispassionate basis and never allowed the thought to worry him.

His clubbability was manifest in his much-treasured membership of the Savage Club in London, where he edited the Club magazine 'Drumbeat'. He took great delight in their performance evenings, contributing himself on a number of occasions. One of his specialities was the performance of Flanders and Swan songs and on one occasion he found himself being accompanied by Donald Swan. His materials science background led him to being a liveryman of the Worshipful Company of Horners - leather and horn being ubiquitous medieval materials, hence the City home to materials scientists. He was also Chairman of the London Materials Society in the mid '90s. His collection of ceramic insulators reflected his wide-ranging interest in materials; he considered that his was the second best in the world, out of three.
He recovered well from a major heart episode in 2010, but in the last 12 months deteriorated rapidly in health and spent the last seven months in Ellesmere House nursing home where he was very well cared for and died peacefully. David embodied all that was good about university life, where he certainly gave much more than he received.



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