THE HEALTHCARE SCIENCE LEADERSHIP JOURNAL

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AHCS
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Editorial Board

In this issue

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EDITORIAL

Welcome to the Summer edition of the *Healthcare Science Leadership Journal*, which showcases the diverse leadership experiences within our community. This edition features inspiring stories, insightful reflections, and practical guidance relevant to current and future leaders.

We begin with Kath Hayden's leadership journey, sparked by a childhood fascination with science. From early quality improvement projects to her current role as President of the Association for Laboratory Medicine, Kath's path exemplifies the varied routes to leadership for clinical scientists. Her emphasis on seizing opportunities and supporting colleagues truly resonates. Early leadership experiences involved standardising blood glucose equipment and training. A formative experience was the Influencing the Future Leadership programme, highlighting the personal aspect of leadership. Kath encourages potential leaders to challenge the status quo.

Dario Freitas's reflection offers a valuable lesson: authentic leadership prioritises the team's well-being over personal ambition. Inspired by Simon Sinek, Dario stresses that leadership is about "taking care of those in your charge". He adopted servant and collaborative leadership, empowering team members and fostering open communication.

Didi Akinluyi approaches his diverse roles with a "healthcare systems designer" mindset, driven by a strong sense of purpose. His ability to connect different responsibilities through a clear vision offers a compelling example of purpose-driven leadership, even when facing challenges like the pandemic. Didi adopts a coaching approach to leadership, encouraging team development and fostering a shared vision. He advises aspiring leaders to pursue their vision, build a team, and find champions.

Paul White's account of leading an international clinical engineering team after the Turkey-Syria earthquake powerfully conveys the realities of crisis leadership. His narrative highlights the critical need for clear communication, effective coordination, and resilience in high-pressure situations. Clinical engineers played a vital role in deploying and setting up essential medical devices, demonstrating how technical and scientific expertise enables clinical scientists to lead in critical times.

Samantha Scott's insightful articles urge clinical scientists to recognise and embrace their leadership potential and make their voices heard. "The Quiet Revolution" argues for greater recognition of our profession's vital contributions and offers strategies for engaging in leadership and policy discussions. "Breaking the Mould" encourages innovation, resilience, and challenging the status quo to improve patient care. Examples include redesigning referral pathways and implementing new technologies by acting first and seeking permission later.

Finally, we gain valuable insights into the research journey through Linor Jones's account of her HSST research approvals and Sagar Sabharwal's reflection on publishing his MSc project. Linor's detailed experience highlights the complexities and emotional aspects of navigating research ethics and governance, emphasising the significance of persistence and support. Sagar's reflection highlights key aspects of his journey, including the rigorous nature of research, collaboration, and publication, emphasising the necessity of a thorough literature review and perseverance in overcoming challenges.

These articles illustrate that leadership in healthcare science is integral to our professional identity. It requires our unique blend of expertise, communication, commitment to patient care, and the courage to drive positive change.

To further enhance the Journal's content and keep you at the forefront of our field, we are excited to announce the first in a series of three new regular features. These will provide valuable insights into AHCS policy and strategy, informing you about national developments. We will also celebrate the achievements and contributions of our community through a dedicated section recognising awards within healthcare science, highlighting excellence and inspiring future leaders. Finally, our new book pitch feature offers a glimpse into emerging literature relevant to healthcare science leadership, keeping you abreast of key publications. These additions will further enrich your understanding of the leadership landscape and support your professional development.

As part of our ongoing efforts to enhance the Journal and its strategic direction, we are planning to design, develop, and launch the first-ever readership survey in the coming months. Please stay tuned, as your feedback will play a crucial role in shaping both the Journal and our long-term strategic vision.

We hope this issue inspires you to recognise and embrace your leadership potential and actively shape the future of healthcare science.

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POLICY, PROGRESS, AND PURPOSE: STRATEGIC INITIATIVES SHAPING HEALTHCARE SCIENCE

This new section outlines key policy and strategic initiatives within the Academy of Healthcare Science (AHCS). These initiatives span governance enhancements, regulatory advocacy, professional development, and recognition, all aimed at strengthening the position and impact of healthcare science across the UK.

A significant strategic focus is advancing the Academy's Royal Charter application. This is viewed as a crucial step designed to substantially enhance the Academy's standing and influence throughout the UK. Achieving Royal Charter status is expected to formalise the AHCS's commitment to excellence and elevate its ability to advocate for the profession, drive innovation, and support the development of healthcare science nationwide. Regulatory strategy is also a key area of activity. The AHCS is reassessing its approach to the Equivalence process to enhance efficiency for all applicants.

The AHCS has established a new position for an Associate Member on the AHCS Regulation Board. This individual will play an active role in board discussions and contribute to shaping decisions that impact patient safety and the professions regulated through the Academy's Professional Standards Authority (PSA)-Accredited registers.

The AHCS also sees an opportunity to collaborate on regulation. This involves working with Chief Scientific Officers (CSOs) or their equivalents across the four UK countries and the Professional Standards Authority to address right-touch regulation and advocate for statutory regulation for Healthcare Scientists. Advocacy for expanded professional scope is another strategic priority, particularly concerning prescribing rights. The Professional Bodies Council (PBC) has written to the Department of Health and Social Care (DHSC), advocating for prescribing rights and patient group directions (PGDs) for clinical scientists and biomedical scientists. The rationale behind this advocacy is that empowering these scientists to supply and administer medicines via PGDs would improve clinical practice safety, efficiency, and efficacy. The AHCS is starting to develop a strategy for the Professional Bodies Council (PBC) to ensure a unified approach to healthcare science leadership and advocacy.

Elevating the profile and ensuring the recognition of healthcare scientists' contributions are embedded within the Academy's strategy. Despite their vital role in advancing patient care, innovation, and the future of the NHS, healthcare scientists often go unrecognised. Nominating colleagues for King's Honours is highlighted as a powerful mechanism to celebrate their impact and elevate the profile of healthcare science. Similarly, the opening of nominations for the 2025 Honorary Fellowships is intended to celebrate individuals who have supported the AHCS's development and growth, recognising contributions across areas such as Professional Standards, the Development of Healthcare Science, Raising the Profile, and Excellence in UK Healthcare. The AHCS also strategically supports and sponsors various Healthcare Science Awards, including those at the Advancing Healthcare Awards and Scotland's Chief Scientific Officer's Awards.

Finally, leadership transition is noted as part of the strategic landscape. The appointment of Professor Chris Hopkins as President-Elect before his formal appointment as President brings recognised expertise in research and innovation, including prior recognition with the NHS England Chief Scientific Officer's Award. His current roles on national committees underscore his ongoing contribution to advancing healthcare research and innovation and strengthening cross-sector collaboration, key elements supporting the Academy's strategic direction. The Academy is also awaiting the results of the independent review of the National School of Healthcare Science, an outcome likely to inform future policy and strategy regarding education and training pathways.

In conclusion, the AHCS is actively pursuing a multifaceted strategy focusing on governance enhancement through its Royal Charter application and regulatory reforms. It advocates for expanded professional roles, strategic planning for representative bodies, and initiatives to ensure the significant contributions of healthcare scientists are appropriately recognised. These efforts, underpinned by leadership transitions, aim to solidify and advance the healthcare science profession.

THE QUIET REVOLUTION:
HOW CLINICAL SCIENTISTS CAN LEAD FROM THE FRONT

Samantha Scott, University Hospitals Bristol and Weston NHS Trust

Clinical scientists play a vital role in healthcare innovation, diagnostics, and patient management, yet our profession remains largely unrecognised outside specialist circles. Here Samantha Scott explores why clinical scientists must step up, assert their influence in leadership and policy, and ensure their voices shape the future of healthcare. Through practical strategies and real-world examples, we examine how clinical scientists can transition from 'hidden experts' to visible leaders.

Have you ever introduced yourself as a clinical scientist only to be met with a blank stare? You're not alone. Despite being the driving force behind some of the most advanced diagnostic and therapeutic interventions, we remain one of healthcare's best-kept secrets.

The reality? Healthcare science is the backbone of modern medicine. Our expertise, as clinical scientists, is not just important, it's crucial. Yet, it is often overlooked in decision-making, service development, and national policy. While doctors and nurses take centre stage, we, as clinical scientists, quietly ensure that diagnostics are accurate, innovations are implemented, and patient pathways are optimised. Our work is not just behind the scenes; it is at the core of healthcare.

It is time to change that. If we want to influence the future of healthcare, we need to be present, seen, heard and recognised as the leaders we already are. This recognition is not just a desire; it is a necessity for the advancement of healthcare science.

The leadership void: why clinical scientists stay in the shadows

Despite our expertise, clinical scientists often shy away from leadership roles. Why?

- **Lack of visibility:** Our work happens behind the scenes, and many healthcare professionals (let alone policymakers) don't fully understand what we do.
- **Imposter syndrome:** We are technical specialists, but leadership is often seen as the domain of medics and managers.
- **Limited pathways to leadership:** Unlike doctors who follow structured routes to consultant and executive roles, clinical scientists often have to carve out their leadership journey.
- **Time constraints:** Balancing clinical responsibilities, research, and service innovation leaves little room for leadership aspirations.

> **"Healthcare science is the backbone of modern medicine."**

Samantha Scott, *Lead Clinical Scientist in GI Physiology, University Hospitals Bristol and Weston NHS Trust and Chair of the Association of GI Physiology Professions*

But here's the truth: If we don't step up, someone else will decide for us. And they might not always understand the science behind them.

From specialist to leader: how clinical scientists can step up

We don't just need to be present in healthcare leadership; we need to be a force for change. Here's how clinical scientists can take the lead:

1 Own your expertise

We bring a unique skill set to leadership that blends technical knowledge, problem-solving, and data-driven decision-making. Clinical scientists don't just follow guidelines; we create them. This skill set sets us apart and makes us competent leaders in healthcare science.

Case Study: *The Impact of GI Physiology on Pathway Redesign. By identifying inefficiencies in traditional referral pathways, I worked with clinical endoscopists to create direct-to-physiology referrals, slashing waiting times by up to 50 weeks. Managers didn't make this decision; it was driven by scientific expertise.*

Takeaway: *Use your data, evidence, and insight to advocate for change in your field.*

2 Get comfortable with visibility

If no one knows who you are, how can you lead? Leadership isn't just about decisions; it's about influence.

- Present at multidisciplinary team (MDT) meetings and conferences.
- Share your work through publications, LinkedIn, and professional networks.
- To contribute to policy discussions, engage with national bodies (AGIP, AHCS, UKAS).

Example: *I took GI Physiology to the House of Lords. Advocating for quality improvement in healthcare science, I represented the Accreditation Clinical Advisory Group within UKAS at the House of Lords, ensuring that clinical scientists had a voice in national accreditation standards.*

Takeaway: Step into the spotlight. Your knowledge is valuable; share it.

3 Be at the table where decisions are made

Clinical scientists must move beyond the lab and clinic; we need to be in boardrooms, in NHS policy discussions, and on national committees.

- Join advisory boards and working groups (e.g., NHS England Clinical Advisory Group, IQIPS Committees, ICB decision panels).
- Offer to be a scientific advisor in Trust-level planning and service redesign.
- Apply for leadership programmes aimed at clinical scientists (e.g., NHS Leadership Academy).

> **“If we don’t step up, someone else will decide for us.”**

***Example**: Shaping the Future of GI Physiology in NHSE. As a member of the Clinical Advisory Group (CAG) for NHS England, I provide subject matter expertise in GI Physiology, influencing national decisions on diagnostic pathways and workforce development.*

Takeaway: Pull up your chair if there isn’t a seat at the table.

4 Mentor the next generation

Leadership isn’t just about taking the lead; it’s about creating future leaders.

- Support junior scientists in developing leadership skills early.
- Advocate for structured career progression within healthcare science to ensure future leaders don’t have to fight the same battles.
- Champion diversity in leadership; our profession should reflect the patients we serve.

***Example:** Building a Collaborative Network for GI Physiology. Recognising the need for greater knowledge sharing and professional development, I spearheaded the creation of the South GI Physiology Specialty Group. This network connects clinical scientists across multiple trusts, allowing us to standardise practices, collaborate on research, and advocate for our profession at a regional and national level.*

Takeaway: Leadership isn’t just about advancing your career; it’s about lifting others with you and fostering a more substantial, united profession. Be the mentor you wish you had.

Conclusion: the time to step up is now

The days of clinical scientists working behind the scenes without recognition must end. We are innovators, problem-solvers, and leaders in patient care; we need to claim that space.

If we want our expertise to shape the future of healthcare, we need to:

- **Be visible:**
  Speak, present, publish. Make sure your work is known.
- **Be strategic:**
  Engage in decision-making beyond your department.
- **Be proactive:**
  Leadership isn’t given; it’s taken. Step up and own it.
- **Be mentors:**
  Support the next generation to ensure lasting change.

We are not just specialists. We are leaders. And it’s time to be heard. Let’s advocate for our profession, share our successes, and demonstrate the impact of our work. By doing so, we can increase the visibility and recognition of clinical scientists in the healthcare sector.

BREAKING THE MOULD:

LEADERSHIP IN HEALTHCARE SCIENCE BEYOND THE RULEBOOK

Leadership in healthcare science often requires adaptability, creativity, and above all, resilience. This is especially true when standard frameworks don’t account for our real-world challenges. Here Samantha Scott explores how clinical scientists can drive change by thinking outside the box, finding innovative solutions to systemic barriers, and pushing for improvements in patient care. Through real-world examples and practical strategies, she examines how resilience is a key factor in leading meaningful transformation.

If leadership in healthcare science came with a manual, it would likely have a chapter titled: “What to Do When Everything Falls Apart.” Whether it is outdated equipment, underfunded services, or navigating bureaucracy, leadership often means finding solutions when none seem to exist.

Being a clinical scientist is not just about applying scientific expertise but navigating a system that doesn’t always make sense. The ability to think outside the box, innovate, advocate, and challenge norms transforms a good scientist into a great leader.

This article explores how healthcare scientists can lead effectively, even when the rulebook doesn’t fit.

The reality of leadership in healthcare science: problem-solving on the fly

Unlike many leadership roles, healthcare science is rarely predictable. Some of the biggest challenges we face include:

- Rigid Systems in a Dynamic Field: Scientific advances move fast; healthcare administration does not.
- The ‘We’ve Always Done It This Way’ Mentality: Change

isn't easy, and tradition often trumps innovation.

- **Balancing Crisis Management with Long-Term Strategy:** Too often, we put out fires instead of building sustainable solutions.
- **The Underestimated Role of Healthcare Scientists:** We play a critical role in diagnostics, treatment planning, and patient care, yet often lack representation in decision-making.

So, how do we move beyond these barriers? By thinking differently, leading boldly, and challenging the status quo.

Thinking outside the box: breaking the mould

If standard solutions don't work, it's time to rewrite them. Here's how clinical scientists can approach leadership and problem-solving in unconventional ways:

> **"If standard solutions don't work, it's time to rewrite them."**

1 Stop waiting for permission

The NHS loves a lengthy approval process, but sometimes, change can't wait. Clinical scientists must learn to initiate innovation within their scope while making the case for system-wide adoption.

Example: *Transforming Referral Pathways. Faced with excessive waiting times for oesophageal physiology testing, I collaborated with Clinical Endoscopists to introduce direct-to-physiology referrals—cutting patient wait times by 50 weeks. Instead of waiting for formal restructuring, we trialled the approach and proved its success before securing wider approval.*

Takeaway: *Sometimes, you must act first and seek permission later (within reason!).*

2 Strategic rule-bending: knowing when to push boundaries

Not all rules need breaking, but some need bending. The key is knowing which policies are essential for safety and which are merely bureaucratic relics.

Example: *Implementing Capsule Sponges for Barrett's Surveillance. Traditional Barrett's surveillance relies on endoscopic biopsies, which overwhelm endoscopy departments. Instead of waiting for a national directive, we secured funding to introduce Capsule Sponges, a noninvasive alternative. Now, they're proving their value and alleviating pressure on overburdened services.*

Takeaway: *Rules should facilitate patient care, not obstruct it; when they don't, challenge them.*

3 Collaboration: finding allies in unexpected places

Innovation doesn't happen in silos. Some of the best solutions come from working across disciplines and forming unexpected partnerships.

Example: *Expanding Upper GI Biofeedback Therapy. Initially a niche service, biofeedback therapy gained traction after demonstrating its benefits to upper GI teams. By showcasing its impact and involving stakeholders early, we expanded access and established it as a key intervention.*

Takeaway: *Getting the right people invested is the best way to drive change.*

4 Leadership is what you make it: stepping up before you are asked

Too often, clinical scientists wait for leadership opportunities instead of creating them. If a process is broken, fix it. If a pathway is outdated, redesign it. Leadership isn't about a job title; it's about taking action.

Example: *Standardising GI Physiology Services Regionally. Recognising the inconsistency in service provision across Trusts, I helped establish the South GI Physiology Specialty Group. This collaboration has improved best practice sharing, standardised diagnostics, and strengthened our collective professional voice.*

Takeaway: *If leadership opportunities don't exist, create them. Change starts with you.*

Leading through change: what next?

Thinking outside the box in healthcare science isn't about ignoring structure; it's about knowing when the existing structure isn't working and having the courage to improve it.

For junior scientists and future leaders, here's what I'd say:

1. Don't wait for the perfect opportunity. It won't come. Start where you are and push forward.
2. Be comfortable with discomfort. Change is difficult but necessary.
3. The challenge is with solutions, not just problems. Identifying issues is easy; proposing fixes is what makes you a leader.
4. Find and support your network. You're not in this alone. Build a team that shares your vision.

Conclusion: rewriting the rulebook

Leadership in healthcare science is unpredictable, challenging, and often frustrating, but it's also one of the most impactful roles we can take on. The reality is that the rulebook doesn't always fit, and that's okay. Ultimately, real progress isn't about following the rules but knowing when to rewrite them.

If we want healthcare science to thrive, we can't just work within the system; we must reshape it. And that starts with thinking outside the box.

FROM DRAFT TO DOI: MY JOURNEY INTO SCIENTIFIC PUBLISHING

Sagar Sabharwal, University Hospital Birmingham (UHB) NHS Foundation Trust

Sagar Sabharwal, *a clinical scientist working in radiotherapy physics at the University Hospital Birmingham (UHB) NHS Foundation Trust, shares his experience of the publishing process and offers some sound advice to others.*

I trained at UHB, completing the Scientist Training Program (STP) in 2022. Before this, I graduated with a physics degree (MPhys) from the University of Warwick. I now plan to start working towards my Medical Physics Expert (MPE) portfolio, ideally completing it over the next 2-3 years.

Last year, we published the MSc project I completed as part of the STP in the British Journal of Radiology (BJR)[1]. This was the first paper I've worked on. In Stereotactic Radiosurgery (SRS), a type of intracranial radiotherapy treatment, high-energy radiation beams are used to treat lesions close to healthy sensitive organs such as the optic nerves. This project involved taking MRI scans of volunteers looking in different directions to measure optic nerve motion. Then, this measured motion data was used to create what is known in radiotherapy as planning organ at risk volume (PRV) margins for the optic nerves. PRV margins consider organ motion and other uncertainties in radiotherapy, such as how accurately and precisely a radiotherapy treatment machine, CyberKnife, in this case, can deliver a radiation beam to a point.

When planning treatments, these margins are used as an additional safety margin around a healthy radiosensitive organ. The use of optic nerve PRV margins may help reduce the risk of radiation-induced optic neuropathy. This condition leads to progressive vision loss, and care is taken during radiotherapy treatment planning to keep radiation dose to the optic nerves below a tolerance level to reduce this risk. Our research findings provide a novel approach to determining optic nerve PRV margins for use with CyberKnife, the SRS system used at UHB, thereby improving the safety and efficacy of SRS treatments.

I was drawn to this project as I wanted to work on something that could have a clinical impact. Additionally, the level of collaboration with colleagues from multiple disciplines that would be required for this project appealed to me. The project idea came from Dr. Paul Sanghera, a neuro-oncologist at UHB, and my project supervisor, Dr. Geoff Heyes, the head of the radiotherapy treatment planning department. My supervisor helped guide and support me throughout this project. For the MRI aspects of the project, I worked closely with Rob Flintham, one of the MRI physicists at UHB, to ensure the accuracy and reliability of our imaging data. I worked with Dr Sam Tudor on the margin calculations for this project, who is head of the radiotherapy physics department at UHB and has published work on margin calculations[2]. I also worked with Professor Chavda, a neuroradiologist at UHB, who assisted with reviewing anatomical contours and agreed to report on all MRI scans of our volunteers as required by our Trust ethics policy. This collaborative effort was crucial in ensuring the success and validity of our research.

We used NHS Research Authority tools to determine whether our project counted as research (https://www.hra-decisiontools.org.uk/research/) and whether an NHS Research Ethics Committee (REC) review (https://www.hra-decisiontools.org.uk/ethics/) would be needed. Our project counted as research but did not need NHS REC review based on the results of these tools. This meant we had to go through our local Trust ethics process.

One of the key lessons I have learned from this experience is the importance of a thorough literature review and well-designed research questions. It is essential to conduct an exhaustive literature review to determine what research has been carried out previously and constructively critique the published literature. This allows you to refine your research question to help address gaps in the literature. I performed this literature review using PubMed and Google Scholar, searching for keywords related to our project. I completed a mandatory library course on conducting literature reviews at university. The knowledge from that course, particularly guidance around selecting keywords for searching, helped make this search a lot easier. Many NHS trusts and university libraries will have similar courses available to staff.

My supervisor, Geoff Heyes, and I used our literature review to help plan and design our research project. We wanted to focus this project on a specific topic with an end goal – optic nerve PRV margins for use with the CyberKnife radiosurgery system. We looked at similar work and used that to design our research methodology and find gaps to address. For example, we took the idea of having volunteers look left, right, up, down and straight-ahead during imaging from published literature looking at optic nerve motion. However, we increased the number of volunteers we imaged compared to some published work and chose to restrict eye motion when imaging using our eye position protocol. Previous work had asked people to look

to the extreme edges of their vision to determine optic nerve motion. Still, we did not believe this to be a realistic scenario, so we wanted to limit eye motion further.

After completing our literature review, we divided the project into five key milestones and created a Gantt chart to map out our estimated completion time. The project was completed over about 9 months, with a strict deadline for the MSc project. Once I had finished my dissertation, my supervisor suggested submitting abstracts to various conferences and starting on a paper. I presented this project at the annual meeting of the British and Irish Chapter of the International Society for Magnetic Resonance in Medicine in September 2022 and at the Institute of Engineering and Physics in Medicine Science, Technology and Engineering Forum in February 2023. Despite my initial nervousness about presenting to these audiences, I was greatly encouraged by the support and feedback from my department and during practice talks, some of which I gave in our departmental journal club.

Before starting the paper, my supervisor and I discussed which journal we would submit the paper to. We needed a journal that would fit our research topic and, therefore, was likely to accept our paper. Our project covered many aspects of medical physics, such as MRI, uncertainties in radiotherapy, and margin calculations for radiotherapy planning. We also thought this paper would be helpful to oncologists working in SRS. Therefore, BJR made sense for us as it's a journal that publishes work aimed at both audiences. Picking a journal at the start of the writing process also meant we knew the author guidelines such as writing style, guidance on tables/figures and word count.

> **"... cutting down 10,000 words to under 3,000 words was not easy."**

As this project was for my MSc, I had already written a dissertation, meaning I had already written many aspects of the paper. However, cutting down 10,000 words to under 3,000 words was not easy. My supervisor gave me some advice about approaching this. A dissertation involves a lot of describing, justifying, and explaining why things were done in a certain way. However, many of these aspects are left to the reader to judge in scientific papers; therefore, significant sections could be cut.

We had 14 drafts of the paper before we settled on a version we thought we could submit, albeit most were minor changes. Initially, the paper was a cut-back version of my dissertation. However, we realised formatting it like that didn't work, and the word count was still too high. Sam Tudor, who helped me with the margin calculations, suggested focusing the paper more on the margin calculations as this may benefit readers. Initial drafts of the paper were much less focused on the maths of margin calculations. I reduced the number of words spent talking about the MRI aspects of the project to focus more on margin calculations. This significantly improved the paper as we focused on something slightly more novel. There was already plenty of literature on MRI of the optic nerves, much of it published years ago.

Once we were happy with the draft, the manuscript was submitted through the Journal submission process. A short while later, we received a confirmation that our paper was suitable for the journal and would be sent for peer review. A few months later, we received feedback from three reviewers. All the changes suggested were relatively minor; however, after discussions with others on the project, we decided to make changes that went further than those recommended by the reviewers. One of the reviewers asked for clarity about the margin calculation, and we decided the best way to do that would be to show our calculation step by step in a new table.

We then sent a new manuscript back to the journal for review. We heard back a few months later, stating our paper had been accepted for publication. The total time from beginning a literature review and forming our research question to publication was almost three years. For the first 9 months or so, I worked on the project and wrote a dissertation to submit for my MSc. The rest was slowly writing a paper, with submission to BJR in early 2024 and publishing in late 2024. Writing the paper took much longer than I anticipated, mainly due to difficulties managing priorities. As a trainee, I had dedicated research time, but this is impossible while working as a clinical scientist, where clinical work will always come first. Gaining more experience has helped me manage my time much better, and I can communicate my workload to colleagues better when discussing non-routine and non-urgent work. I could have split my time more effectively and written the paper sooner than I did, and this is a lesson I will take with me on future projects.

Completing this project and seeing it through to publication has been an enriching experience, and it will positively impact my career moving forward. Being able to present at conferences has also helped me develop my presentation skills and confidence. Now that I work full-time as a clinical scientist, finding time to carry out project work can be challenging. The time from project completion to publication was much longer than anticipated, and this is something I'll aim to improve in future projects. This project was self-contained; however, it could be extended to look at optic nerve planning target volume (PTV) margin accuracy using the data we collected. In the meantime, I've joined a few other projects in my department we hope to publish. This experience has made me want to continue to work on research projects. As clinical scientists, I think it is essential that we try to innovate, develop services and expand the research base, communicating findings through publishing in journals or presenting at meetings, alongside our clinical duties.

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THE CONFIDENCE CATALYST: CREATING OPPORTUNITIES THROUGH SELF-BELIEF

Kath Hayden, Manchester University NHS Foundation Trust & University of Manchester

Challenge yourself to take on that leadership opportunity rather than accept the status quo, you won't regret it, advises Katherine Hayden, president of the Association for Laboratory Medicine. Here, she tells us more about her career and her experience of leadership.

What attracted you towards life sciences and healthcare?

As a child, I was always fascinated by science, with my best Christmas present being a chemistry set rather than a Barbie™ doll. Going through school and sixth form, I gravitated to human biology (plants were never my thing), organic chemistry, and statistics, which took me to a biochemistry degree from the University of Manchester. A module on Clinical Biochemistry during my degree was my first window into appreciating the role of clinical scientists in the NHS. My advice is always to follow what interests you and that you are good at, as that opens opportunities that you may not initially have known even existed.

Where did you train initially, and what did you do next?

I began my career as a Basic Grade Biochemist at Withington Hospital in South Manchester, rotating between the central automated laboratory, the radioimmunoassay lab, and the specific protein lab that was then located at the Christie Hospital. The training provided a good grounding in clinical biochemistry, proteins, and immunoassays. In those days, we even iodinated our tracers for use in our in-house assays with separation using gel filtration, a daunting prospect initially when handling radioactive iodine stored in the lead-lined bunker. Once I had obtained the part 1 RCPath (DipRCPath), I moved on to a Principal Clinical Biochemist post at University Hospital Aintree in Liverpool.

What was your earliest leadership experience?

I was a QC Officer and Point of Care Testing (POCT) Coordinator at Aintree. Early on, I audited blood glucose monitoring in the hospital wards. This highlighted that this was being poorly performed, with scant training and variable quality, with a mixture of products and devices being used. Enlisting support from the diabetes consultants, specialist nurses, and pharmacy, I drew up a specification that went out to tender for a standardised strip and POCT device for the Trust, with a package that included quality assurance, training, and competency assessment. This project significantly improved blood glucose monitoring and the care of patients with diabetes.

> **“ My advice is always to follow what interests you and that you are good at... ”**

Kath Hayden *is a Consultant Clinical Biochemist at Manchester University NHS Foundation Trust and Honorary Senior Lecturer at the University of Manchester, and currently President of The Association for Laboratory Medicine.*

What made you want to take on leadership roles?

Initially, I would say that I was a situational leader. In other words, when an issue arose or a service or quality improvement was required, I would find myself taking on the role of leading by default, getting a team together, liaising with clinicians and stakeholders, and finding a solution. This drove a desire to make more of a difference and take on more of a formal leadership role.

What happened after that? Where did taking a lead take you?

After obtaining FRCPath, I was appointed as a Consultant Clinical Scientist in Biochemistry at University Hospital Aintree and, soon after, took on a leadership role for the laboratory to consult on the planning and development of the LIFT Centre at Litherland Town Hall. LIFTs, or Local Implementation Finance Trusts, were the primary care equivalent of PFIs (Private Finance Initiatives), used widely in secondary care to develop services. My role was to create and implement a solution to support community clinical services such as respiratory, heart failure and diabetes clinics. The solution was what I termed a 'POC Lab' or point of care laboratory. It was staffed by a biomedical scientist (BMS) on rotation; they provided results at the point of care to guide clinical treatment decisions for patients. Given that

this was nearly 20 years ago, it was ahead of its time in its aim to keep patients out of hospital by providing community services closer to the patient.

What has been your most formative leadership experience so far?

Attending the Influencing the Future Leadership programme in 2009/10. This was funded by NHS NW Leadership Academy for Senior Healthcare Scientists and delivered by Phoenix Consulting and was my most formative leadership experience. Like many healthcare scientists at the time, I had been promoted up the career ladder through my abilities as a clinical scientist with little leadership training. It was a light-bulb moment to realise that, actually, leadership was all about me: how I needed to improve to become a better leader, developing greater self-awareness and understanding of others' viewpoints, and how to think before each action about what I wanted to achieve. This programme came at an ideal time; it coincided with a move to my current post as Consultant Clinical Scientist in Biochemistry at Manchester University NHS Foundation Trust (MFT), with the access to coaches and mentors on the programme helping me to develop in my new leadership role and deliver my project on harmonisation of our laboratories.

> **"Like many healthcare scientists at the time, I had been promoted up the career ladder through my abilities as a clinical scientist with little leadership training."**

What has your leadership journey felt like?

My leadership journey has often felt like being in the right place at the right time, but that doesn't fully capture my personal drive to promote change, enhance services, and ultimately, improve patient care. My journey is rooted in a constant search for the next challenge or leadership opportunity, rather than settling for the status quo. This relentless pursuit of improvement is a testament to the profound impact we, as healthcare leaders, can have on patient outcomes.

What have you been aiming for? What would you like to see happen?

Since my appointment in Manchester, I moved into the role of Head of Department of Clinical Biochemistry and then Clinical Director for several years before moving into the position of Clinical Head of Division for Laboratory Medicine for the newly formed MFT. I worked closely with the divisional director to merge labs with Trafford General Hospital, Wythenshawe Hospital, and North Manchester General Hospital, bringing these laboratories together within the new organisation. The challenge of overseeing a large specialist team of medical consultants, consultant clinical scientists, trainees, and BMSs was enormous, and discussions were initiated around adopting digital pathology and advanced roles for BMSs and clinical scientists. Throughout COVID-19, I also took on the role of Pathology Incident Director for Greater Manchester (North 5 NHSE network), with all the additional challenges involved. I would like to see many more consultant clinical scientists taking on clinical director and clinical head of division roles within their organisations as they have the skills and attributes to fulfil these roles, which were previously seen by many as a medical-only domain.

What has been your most encouraging moment?

After my first year as Clinical Director, the most encouraging moment was being told by the Medical Director at my appraisal that I was doing a good job. This was transformative as it reassured me that I had their support to carry on in the role and that I was leading the laboratories in the right direction. It also highlighted that providing positive feedback to staff more frequently can positively impact their confidence and well-being.

What gives you the most excellent satisfaction from being involved in leadership?

Completing complex projects is enormously satisfying, although the most rewarding aspect of being involved in leadership is seeing the development of colleagues who may be new to it, building their confidence and experience and shaping their own leadership journeys.

What are you leading on at the moment? Why did you choose to take this on?

My current professional role is as President of the Association for Laboratory Medicine. Having been a member of the association for over 35 years, it is a tremendous honour and a privilege to now be in the president role. The opportunity to oversee the association's rebranding this year to better reflect our membership and our future vision and to promote the role of Laboratory Medicine and Clinical Scientists in healthcare has been advantageous. Representing our association nationally has opened up new possibilities to collaborate with colleagues on areas of mutual interest for laboratory medicine, particularly with the Royal College of Pathologists (RCPath) and the Institute of Biomedical Science (IBMS). Working with colleagues on the Professional Bodies Council of the Academy for Healthcare Science and the Chief Scientific Officers in England and the devolved nations has highlighted more expansive areas for development that span our respective disciplines, especially around AI and non-medical prescribing, that we are working collectively to pursue.

What would you say to potential and developing leaders?

Challenge yourself to take on that leadership opportunity rather than accept the status quo; you won't regret it. Take time to reflect on your interactions, and think about what could have gone better and how you can improve. These actions are all important in continually striving to become a better leader.

LEADING WITHOUT BORDERS: NAVIGATING CRISIS ON THE GLOBAL STAGE

Professor Paul White, Cambridge University Hospitals

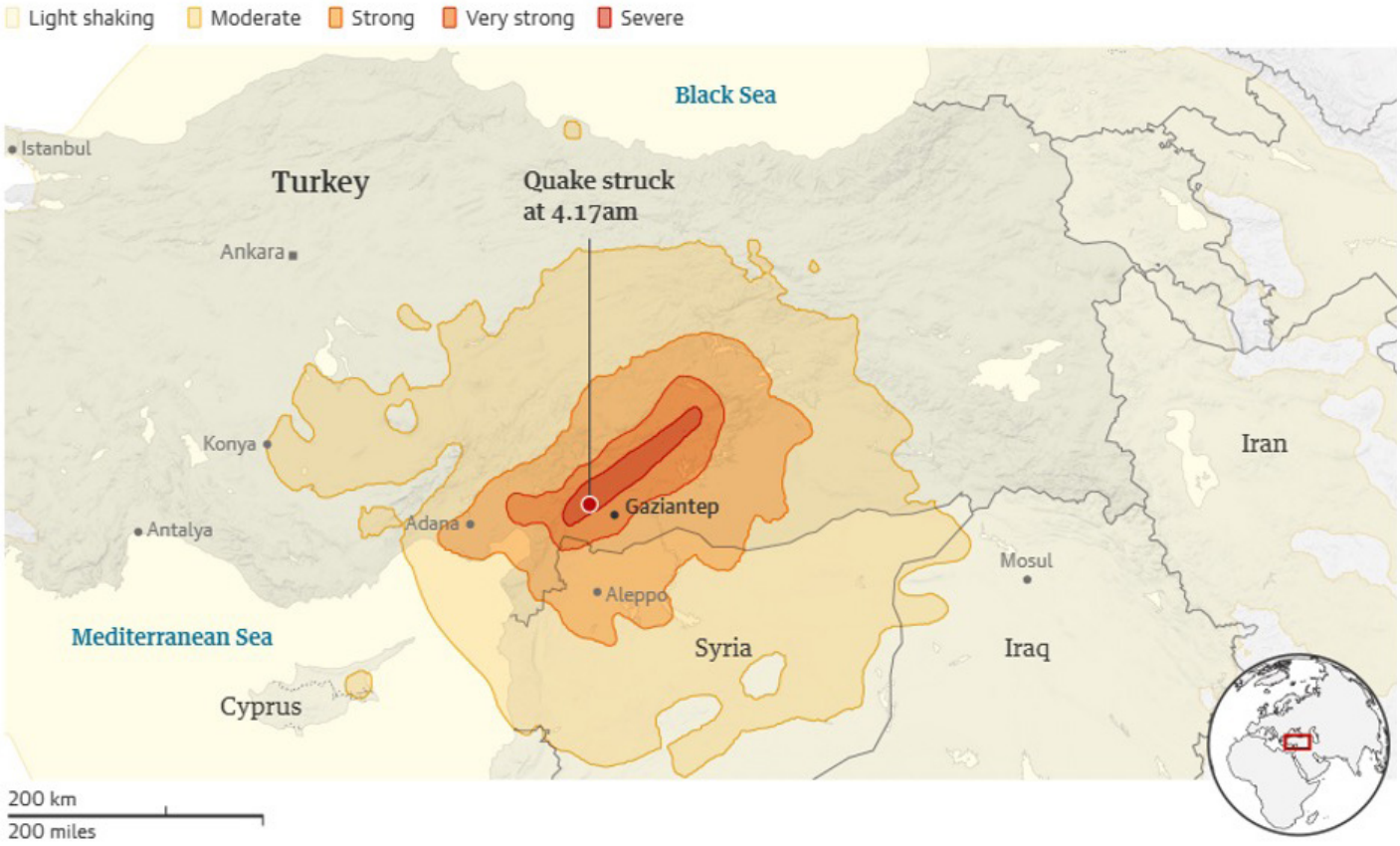
One Friday evening in February 2023, Professor Paul White, Consultant Clinical Scientist and Head of Clinical Engineering, Cambridge University Hospitals arrived home after a busy day at work, looking forward to the weekend and having the following week off. He then received several phone calls which would change his plans, and test and inspire him for life.

Four days earlier a magnitude 7.8 earthquake had struck Turkey and Syria. Cities and rural areas were devastated. Entire neighbourhoods were flattened. Over 50,000 people were confirmed dead and tens of thousands were injured. Many areas were cut off due to blocked roads or collapsed buildings. Millions of people were displaced.

Years ago, I volunteered to help establish a health centre in the Ivory Coast, where I vividly remember setting up critical care equipment in a facility prone to electrical blackouts. Someone I had worked with there wanted me to lead an international team of clinical engineers and multidisciplinary staff to support Turkish earthquake victims and help set up a major trauma centre.

Professor Paul White *Consultant Clinical Scientist and Head of Clinical Engineering, Cambridge University Hospitals*

Figure 1: Epicentre of the February 2023 earthquakes in the southeastern region of Turkey on the Syrian border



Turkey is dear to my heart. It has welcoming people, a rich culture and stunning scenery. I regularly holiday there and now I was being asked to help. But I had a problem.

In July 2022 I came off my bike and broke my back. I told my contact I could not carry anything heavy. The response was, "We want you for your brains and not your brawn". Unsure whether this was a compliment, I said I would go. An hour later a minivan arrived to collect me. My partner and son saw me off, not knowing what dangers I would face. En route I let my boss know where I was going, and that I hoped to be back to work on 20th February as planned - but if not, could I have extended leave and could my trip be kept low profile? I received a positive response and an injunction to keep safe.

This is my account of what happened and what I learned during this visit, its emotional impact and the importance of effective leadership in a crisis situation.

What I found

On arriving in the Turkish city of Antakya I met the multinational team I was going to lead. We were shown round by a member of the international aid team I was going to liaise with during the relief effort. Military teams from around the globe were arriving to install tents and temporary infrastructure support for a trauma facility, including wards and intensive care. Rescue teams were already working tirelessly to locate survivors.

> **"The sheer scale and impact of destruction meant that rescue and aid teams faced immense challenges."**

The sheer scale and impact of destruction meant that rescue and aid teams faced immense challenges. Many buildings had collapsed, trapping those inside. When not busy with clinical engineering tasks we took turns helping recovery teams extract patients from the rubble. This was particularly harrowing, especially when helping to extract injured children from the wreckage of fallen buildings. At regular intervals whistles were blown for everyone to be quiet and listen, to see if we could hear any survivors under the rubble. When sounds were heard we would dig away at debris with our hands to find victims. Many had multiple injuries, so we let international fire and rescue teams do the final extraction.

Figure 2: A large canyon developed post-earthquake dividing the rolling fields of olive groves just outside Antakya. Major destruction of olive groves has severely affecting the fertility of the soil and directly affected the region's economy.

After the first few days the chances of finding people alive rapidly decreased. The focus then shifted to providing medical assistance and temporary shelter. Multiple aftershocks caused more damage and further collapses, keeping residents and emergency teams on edge.

The leadership role

Leading the clinical engineering team involved me in directing the deployment and setup of essential medical devices in a highly challenging, resource-scarce environment. None of us had worked together before, so good communication was essential. It took a couple of days for everyone to gel properly.

Our work was made more difficult by critical infrastructure

Figure 3: Temporary ward based and intensive care tents

Figure 4: Lots of equipment was flown in from around the world

Figure 5: Many buildings, including apartment complexes, schools, hospitals, and offices, had completely collapsed.

damage, especially to water and electricity supplies. In particular we had to specify power requirements and work closely with military personnel so that they could provide adequate generator capacity for the aid tents.

Over the first few days lots of equipment was flown in from around the world. Advanced logistics was required to transfer it from airports and ports to where it was needed. This was extremely difficult due to the impact of the earthquake. Close liaison with military teams was essential to ensure equipment arrived in time to be unpacked, accepted and put into use.

Crisis leadership brings rapidly changing responsibilities, as events unfold. My role required a high level of co-ordination, a blend of technical and scientific expertise, sensitive leadership, and clear resource and risk management. It was important to establish effective communication and coordination with clinical and military teams.

Our Clinical Engineers also acted as leaders, providing expertise and guidance. Despite the overwhelming challenges, their ability to provide essential care in a multidisciplinary team created a sense of purpose which unified our team. We knew we were an essential component of the emergency response.

Getting to work

Initially the major trauma centre, intensive care and ward-based tent hospitals were overwhelmed. Resources were in short supply. The clinical engineering team played a pivotal role in ensuring medical equipment was available to save lives.

We liaised closely with clinical trauma teams to prioritise work on the equipment that was needed first. Here are eight key steps we followed, including examples of our actions:

1. **Immediate response:** Clinical engineers and clinicians ***assessed*** what equipment was essential for treating casualties and then ***prioritised*** setting this up.
2. **Situational assessment:** Clinical engineers ***surveyed*** equipment and stocks of devices and spare parts to see what was functional or could be repaired quickly. They created a working ***inventory*** of items available to support treatment and trauma facilities.
3. **Establish infrastructure:** One big challenge was the need to meet with expert military teams twice a day to ***assess*** projected power consumption and ensure that enough diesel was available to run the generators.
4. **Set up appropriate services:** The initial priority was to ***accept*** and ***test*** devices to ***check*** they could be used. Equipment taken into the harsh environment outside the treatment tents was often damaged, so rapid repair was vital.
5. **Train and troubleshoot:** Some clinicians were unfamiliar with the equipment available, so a clinical engineer was allocated to ***training***. Others helped clinical teams ***resolve problems rapidly***.
6. **Coordinate:** Clinical engineers worked closely with aid, disaster recovery, and international relief teams and humanitarian organizations to align medical device deployment with the emergency response effort. ***Collaboration*** was essential. This meant setting up a centre to coordinate activity and share information about equipment with international agencies.

7 **Manage risk:** Safety is paramount, especially when equipment is used in unstable environments. Power outages and surges were common. To avoid harm to patients or workers, clinical engineers ***assessed risk*** and were ***responsible*** for ensuring that equipment was protected against electrical hazards.

8 **Prepare for the long term:** After the immediate response, the clinical engineering team looked at medical devices used and prioritised repairs and replacements. During the crisis we collected data to ***improve future response*** protocols and strategies. We also focused on ***building sustainable local capacity*** for equipment maintenance and management.

Mental health and stress management

The team I was leading was exposed to high levels of stress, trauma, and fatigue. The devastation, sheer volume of casualties and constant pressure to act quickly to save lives created a sense of emotional exhaustion. Staff often worked 12-hour shifts or longer without proper rest, leading to burnout. Seeing patients in a critical condition or even witnessing fatalities added an emotional burden that was hard to process in such a chaotic environment. Personal distress and moral dilemmas were regularly witnessed, with staff having to make difficult decisions about resource allocation when supplies or devices were in short supply.

> **“ The feeling of making a difference and knowing that every action can save a life provided purpose and strength. ”**

Despite these issues there was great teamwork and morale. Many volunteers were motivated by a sense of duty and desire to help. This kept morale high despite the hardships. The feeling of making a difference and knowing that every action can save a life provided purpose and strength.

By the end of the week many team members were suffering from sleep deprivation and dehydration. This exacerbated stress and impaired their ability to perform. Psychological support was offered, including counselling and debriefing. However, the emotional scars of such an experience can last long after the immediate crisis is over.

Conclusion

I have been back to Turkey on numerous occasions since the earthquake. I usually take a few days out from my holidays to continue supporting communities in Antakya, however I can. The trauma caused by such a massive disaster will be long-lasting.

I was reluctant to tell this story due to the harrowing impact it had on me. However I have been encouraged to do so by colleagues in the hope it might encourage others to step forward in similar circumstances. Should such a disaster happen again, take the opportunity to contribute to a disaster effort by putting yourself forward. Even if you don't want to lead, your skill set can help in an international crisis. You will also gain skills you would never obtain in a normal hospital environment.

Figure 7: At regular intervals whistles were blown for all the teams to be quiet, to listen for survivors under the rubble

Figure 6: A patient being extracted from the rubble by rescue teams, whom we took it in turns to join outside our Clinical Engineering role.

REDEFINING LEADERSHIP: THE RISE OF THE HEALTHCARE SCIENTIST

Emmanuel (Didi) Akinluyi, Guy's and St. Thomas' NHS Foundation Trust & St Thomas' Hospital

We are healthcare scientists! Curiosity is our strength, and leadership is where it takes us.

This is the view of Emmanuel (Didi) Akinluyi, Head of Medical Physics and Clinical Engineering, Deputy Chief Medical Officer and Chief Biomedical Engineer at Guy's and St. Thomas' NHS Foundation Trust. Here, he offers some powerful insights into the realities of making things happen and building your team.

How do you manage all your current roles?

I have quite a few job titles! I think of all of my roles as a healthcare systems designer. Every role I take on fits into that broader design mindset. Though my roles involve working with different people and tasks, I see them being concerned with a single, coherent vision. They are all driven by the same purpose, which keeps it manageable. I am passionate about building systems that enable people to solve problems. There is a lot of leadership at the intersection of my various roles: advocating, communicating, and connecting the department with the broader organisation.

At the heart of it, I'm driven by purpose. This goes back to my roots. My family came to the UK from Nigeria with a specific purpose. I take a lot from my parents, who chose to follow a sense of calling over comfort in many of their decisions, so there was always this thing that "you're on a bit of a mission".

What was your experience of the Very Senior Leadership Programme, and what did you learn from it?

Ruth Thomsen has supported me for years in terms of coaching. She suggested that I apply to join the first cohort of healthcare scientists in a *very senior leadership programme* set up by the chief scientific officer, Professor Dame Sue Hill, and the Academy for Healthcare Science. As I went through it, I got more of that validation that I was in the right place.

> **"I am passionate about building systems that enable people to solve problems."**

Professor Dame Sue Hill was generous with her network, bringing such great people to the programme. We were able to understand what each of their leadership journeys had been. They were all very generous and vulnerable to opening up and sharing knowledge. They have those same challenges and inspirations, and they are good, driven people.

It has demystified aspects of leadership for me. I learned much about managing the more complex, interpersonal side of things and overcoming personal barriers. Each of the senior leaders I met had an inspiring story and something driving them. You need to identify and hold on to what motivates you and ensure that you do justice to that.

Emmanuel (Didi) Akinluyi *is Head of Medical Physics and Clinical Engineering, Deputy Chief Medical Officer and Chief Biomedical Engineer at Guy's and St. Thomas' NHS Foundation Trust. He is also Deputy Director of the NIHR HealthTech Research Centre, which focuses on cardiovascular and respiratory medicine, based at St Thomas' Hospital. He was in the first cohort of the Very Senior Leadership Programme for Healthcare Scientists.*

What challenges have you faced, and have they impacted how you lead and manage your team?

In my leadership journey, I can't really identify a calm time. You're always dealing with some kind of constraint and trying to optimise what you do. Each situation is just a different setting that requires its own particular tools and approaches. You need to be learning constantly.

During my time at Guy's and St Thomas' we have worked through many challenges: pandemic backlog, funding, government change, Brexit and even a major cyber-attack. I became the Head of Clinical Engineering in August 2019, just prior to the COVID pandemic, working with medical devices at a national level within six months of starting. So, my "normal" has never been normal. The very first thing I did was tackle the

absolute resource constraint: "How do we thrive in this very challenging environment?" That was a unique situation.

Following these events, I am left with the slight concern that I'll ask myself if I have recovered from the pandemic or if I'm just carrying on. How different would I have been? And is the way I have managed it healthy?

That issue is still playing out for many people in the health service. As a leader, you have to ask your team this question. People have made and are making exceptional efforts throughout the pandemic and post-recovery period, and you are asking really challenging things of them.

Do you have a specific leadership style?

I try to take a coaching approach. I'm the youngest of three brothers and naturally mimic both of them. My oldest brother is an executive coach and a leader in the food industry; I take a lot of inspiration from him. I'm very clear about my vision and purpose, and for my team, I want to encourage and support the development of everyone I work with.

From day one, I wanted to get the team together. I want people to feel like they're all on the voyage and part of building a shared vision. I think my days of playing International Rugby for Nigeria have reinforced that natural feeling of being part of a team. There is also a side where I try to learn about people's journeys personally because they will be happier and more productive. There will also be much less friction if there is that cohesion.

> **"As a leader, you've got to take pleasure in doing the right things for your team."**

The potential for healthcare scientists is massive, and so there's an element of choice in what you do. If someone arrives with a particular strength, I will try to cultivate that in them as well. I think building a team and appreciating the diversity of views and abilities is important, as is having a common sense of purpose.

Do you have advice for people looking to pursue leadership?

The first thing that comes to mind is to check why you want to be in leadership. My first thing was never a desire to be in leadership. If you have a vision to achieve something, pursue it.

The natural next step for me in working towards that goal was creating a team of people with different skills, bringing them with you and mobilising them. You need to come together in a team effectively, and so, naturally, leadership forms. The overall purpose drives everything; sometimes, the leadership title comes afterwards.

Do not hold back on pursuing your curiosity and vision. We're healthcare scientists! We have to be curious, and so it plays perfectly into leadership. Healthcare scientists make natural leaders and visionaries. It's about pursuing that and then thinking about how to serve that goal. That's when I think that leadership can happen.

I have faith that there are people out there who will pick you up and champion you. If they're not in your department, they're in your region. If they're not in your region, they are out there somewhere. So, find your vision, find champions and then start telling your story so that leadership can happen.

Have a fundamental understanding of and cling to things that are *your* problem. I have colleagues going on maternity leave, and they're almost apologetic that they are leaving the team for a while. It is *my* problem to work around things like that and to accommodate whatever happens. As a leader, you've got to take pleasure in doing the right things for your team.

Leadership is personal. It's challenging to separate your feelings from the job. An element of it is about vision, which is very visceral and can be very emotional. So, you can take it personally from that perspective. Then there's also your team; what makes your role about leadership and not a solo venture is how you personally interact with people and look after and bring them along with you. It also takes some personal resilience: because you are exposed, you are vulnerable, you're going to get things wrong, and you've got precious things to look after, both vision and people. One of the key lessons is you've got to look after yourself and make sure you're in the right place because if you're in the wrong place, you won't have the capacity to look after everything.

What have been your most encouraging moments?

It has been one of those times when you get someone else to buy into, support and validate your vision. The right people help you exceed your expectations of what you think you can do. That's what it's been like for me at each step in my career. I wanted to do a PhD, Higher Specialist Scientist Training and take up other development opportunities but was fortunate to find people like my two heads of department at Guy's and St Thomas' and supervising professor at Cambridge who were incredibly supportive, validated my journey and pushed me to do other things. That kind of support is encouraging and helps you raise your expectations of what you can achieve.

It is also really encouraging when you reach a point where you have built a team that works well, has a great culture, and is where people want to be. There have also been moments when my team told me they want to put me forward for awards, including an Advancing Healthcare Award. Those times really hit me: moments like that are much more encouraging when they come from your own team. These people are close to you, and you have been vulnerable to them. I felt a much deeper validation from that than other types of recognition.

BREAKING GROUND: REFLECTIONS ON GETTING RESEARCH

Linor Llwyd Jones, Glan Clwyd Hospital, BCUHB, North Wales

In September 2020, Linor Llwyd Jones, Principal Clinical Scientist, Betsi Cadwaladr University Health Board (BCUHB) embarked on the challenge of the Higher Specialist Scientist Training (HSST), a five-year workplace-based training programme supported by a Doctoral level academic award. Here she shares her experience planning and gaining approvals for the research project.

Linor Llwyd Jones *is a Principal Clinical Scientist currently working as a Clinical Lead in Adult Cochlear Implants at the North Wales Auditory Implant Service in Glan Clwyd Hospital, BCUHB, North Wales. She is currently in the 5th year of the Higher Specialist Scientist Training programme in Audiology.*

Research summary

Having previously completed an MSc research dissertation in 2008, I had some prior experience in research; however, this was my first attempt at leading a large-scale clinical research study.

My research is a cluster randomised control trial comparing olive oil drops and oil spray as a pre-treatment wax softener before micro-suction removal. The research is set within the existing BCUHB Primary Care Audiology wax removal service offered in multiple GP practices across North Wales.

Starting point

My initial proposal was submitted to the University in April 2022, and I was allocated an academic supervisor. The journey, summarised in Figure 1, started with monthly planning meetings in August 2022, during which we designed the project and worked on the protocol. This early planning was instrumental in setting a solid foundation for the project and ensuring we were prepared for the journey ahead.

> **"We felt the meeting went well and waited to hear the outcome."**

The first approval stage was to contact the Health Board's Research and Development (R&D) team for their support as the research sponsor and internal approval. I was allocated a representative from the team who helped guide me through the research pathway and ethical approval process.

As is required for all clinical research conducted in NHS Wales, I also needed external Health Research Authority/Health and Care Research Wales (HCRW) approval to conduct my research. This is done by completing an Integrated Research Application System (IRAS) form. It is helpful to look at the IRAS form early on, as much of the information required in IRAS is also included within the research protocol.

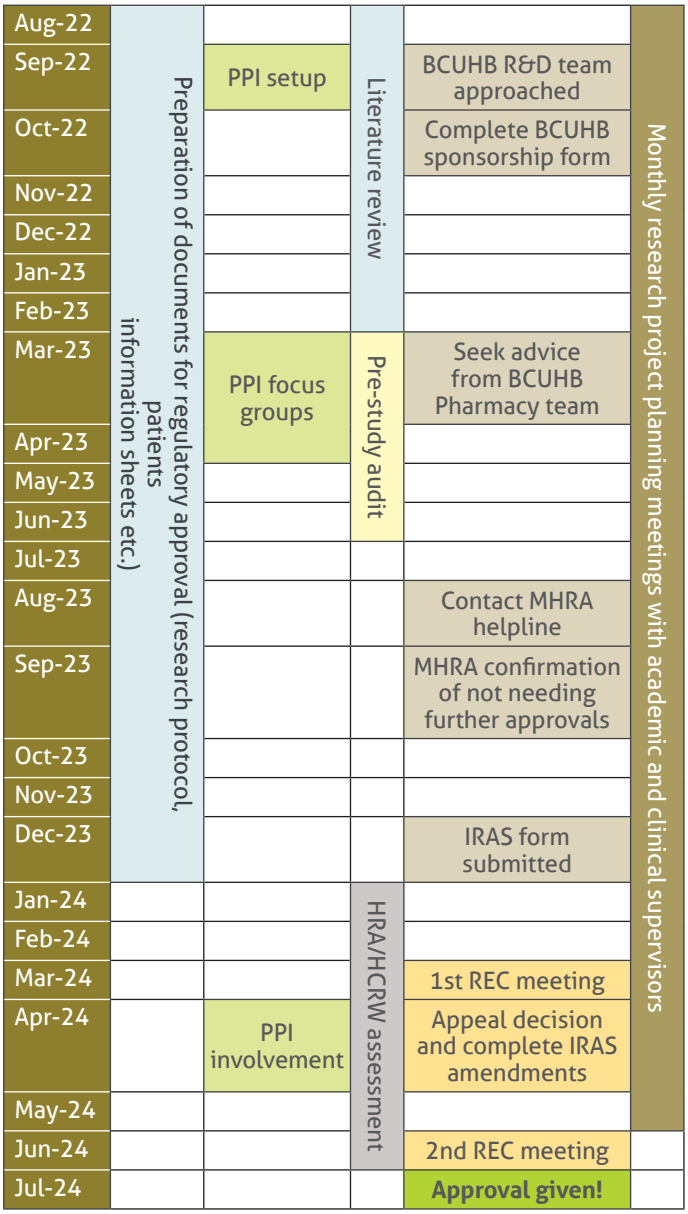
The long road to ethical approval

Following advice from R&D and using a helpful decision-making tool for external ethics committee consideration on the HRA website, I realised that I required a full external ethical review by a Research Ethics Committee (REC) because my research identifies patients through their use of NHS services. The internal R&D team, with their wealth of experience, played a crucial role in mentoring me through this process. Their early support is imperative to ensure the success and appropriate conduct of any research application and project. I am also fortunate that my academic supervisor, with his extensive experience, is well-versed in this process and dealing with RECs.

One early hurdle I encountered was the research's categorisation; completing the Project Filter questions in IRAS determined this. Given the use of olive oil in the study, I was advised by R&D to discuss it with Pharmacy colleagues, who informed me that olive oil may be classified as a medicine. Research studies on medicines need further approval from the Medicines and Healthcare Products Regulatory Agency (MHRA). This was a potential barrier, as MHRA approvals can be costly and complicated. However, I persisted and completed an MHRA decision tool, which suggested that my research may be classified as a 'Clinical Trial of Investigational Medicinal Products' (CTIMP) and would require further approval. The R&D team needed clarification, and a representative contacted the MHRA through their helpline, who explained that olive oil is considered a 'class 1 minimally invasive medical device' rather than a medicine. I did *not* need further permissions and could classify the research as 'Clinical Investigation or other study of a medical device'.

Once all checks had been done, the research protocol, IRAS application form and all patient information were submitted through IRAS. Fortunately, this was accepted in January 2024, which meant that the next step was a review by the Research Ethics Committee (REC).

Figure 1: Timeline of research - from initiation to approval



REC meeting round 1

This was my first experience of a full REC review. A REC review involves a specific external committee reviewing the IRAS application and inviting researchers to a meeting to discuss it further. The booking process was straightforward, and the meeting was booked for March 2024.

The meeting was held online, and about 15 people were present. My supervisors and sponsor representative supported me during the meeting. The Chair of the Committee led the discussions and questions, which included clarifying the research question, discussing the design of the study, its feasibility, the use of Patient and Public Involvement (PPI) groups, and the price difference between the olive oil spray and drops. We felt the meeting went well and waited to hear the outcome.

I was, therefore, very disheartened and disappointed to receive an unfavourable outcome a week later. The research was rejected with no opportunity to amend. The REC feedback indicated concerns about the complexity of using a cluster randomised design, the potential repercussions on the audiologists and the cost disparity between olive oil drops and spray. After reading the feedback and reflecting on how the meeting went, I realised it felt very disappointing and frustrating. I felt quite shocked by the outcome, especially given that we felt the research was of low risk, and surprised that we weren't given any indications of this outcome during the meeting. No opportunity was given to modify the methodology based on the original proposal, which may have reassured the committee. Equally, my experienced academic supervisor was just as shocked as there was little suggestion of this outcome during the meeting. This rejection was a stark reminder of the unpredictability and emotional toll of the research process.

To appeal or not...

My supervisors and I met to discuss the outcome and agree on a plan of action – options involved appealing the decision or re-applying with amendments. We decided to appeal, which involved an initial email to the REC and a written letter explaining our reasons for appealing with comments/details on proposed amendments we would be willing to make based on the feedback received. We sought support from PPI volunteers in the appeal, who provided a brilliant letter of support. This support was obtained by [specific process of involving PPI volunteers]. Favourable support was also obtained and noted in the appeal letter from the statistician and audiologists involved in the study's design.

REC meeting round 2

Two months later, the appeal was accepted, and we proceeded to book our second REC meeting in June 2024. As this was my second meeting, I felt less nervous and more prepared, having discussed potential amendments to the project. Even with this preparation, the previous rejection did put some doubts in our minds about the study's feasibility and design despite knowing this to be worthwhile research.

The experience of the second REC meeting was completely different, and the Chair immediately made us feel at ease. The Chair apologised for the hurdles and explained that various committees have varying experience with other research methodologies. Thankfully, the Chair of this REC had been involved in many cluster randomised trials and so understood the concept and design. The Chair asked a few clarifying questions but was otherwise clearly happy for the research to proceed.

Therefore, a week later, we received the approval letter, which we were delighted, relieved, and thankful to receive. The REC and HRA/HCRW assessment of the application requested a few minor amendments (e.g., suggested wording changes to a consent form), but once these were completed, I received confirmation of a favourable outcome in July 2024. It has been a mere 23 months since starting the journey to ethical approval!

Reflection

This experience has been a learning curve which has tested my resilience and patience (at times). My first experience of

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a Chief Investigator role in clinical research certainly proved to be a challenge. Reflecting and summarising the journey over time (see Figure 1) has really shown the time, work and commitment it takes to get a clinical research project started. Having to appeal an initial rejection made me realise that you shouldn't give up, and a rejection isn't a reflection of the quality of your proposed research, as the second REC were happy with most of the original design. REC committees vary in approach, experience, and interpretation of different methodologies and research designs.

Regular communication with supervisors, mentors, and R&D representatives has been key for me. Without the encouragement and motivation from my supervisors, I possibly would have given up following the initial REC outcome.

My advice to any current or prospective HSST trainees is to start thinking about your research very early on. Even though I was initially on track, obtaining these approvals has really delayed my progress. Despite my research question being a simple one, the process certainly hasn't been, so do not assume things will go smoothly based on the simplicity of your research question, as there may well be unexpected bumps along the road.

Take-home message: Clinical research can certainly test your patience, but coming out the other end of this bumpy road does feel worth it. I feel a huge sense of achievement, having not even started the practical element of the research study yet. I have learnt so much from going through this process, from the challenges it brings to the huge amount of work that goes into planning clinical research.

Now to start data collection … wish me luck!

ACKNOWLEDGEMENTS

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INFLUENCE OVER AUTHORITY: RETHINKING LEADERSHIP

Dario Freitas, Guy's and St. Thomas' NHS Foundation Trust

Dario Freitas shares some important insights into how he developed as a leader, delivering the clear simple message: being a leader is not about you but the others working with you. It is not about 'I' but the 'we'.

> **"Leadership is not about being in charge but is about taking care of those in your charge"**
>
> *Simon Sinek*

About five years ago, when I started my Doctorate in Clinical Science with a special interest in Adult Congenital Heart Disease (ACHD), I was 'bombarded', in a good way, with social science foundations. This included learning about human behaviour and communication skills, the importance of knowing yourself and learning to understand others in the professional environment, and learn about efficient management and leadership skills in healthcare. All this exposure associated with the scientific knowledge acquired over the years would give me the tools to embrace the challenge of a leadership position. However, three years ago, a leadership

position in congenital heart disease echocardiography became available twice in the department, and I didn't manage to get it at the first attempt. After some advances and withdrawals, I've been in post for two and a half years, and when looking back, it is essential to reflect on why I believe I failed initially and what I believe was my performance in the most diverse areas since I'm in post.

Going back to the social science foundations, during that time I learned about many leadership authors and theories and got fascinated by this area. I am particularly interested in Simon Sinek, an American author described as an 'unshakable optimist' who says that 'leadership is not about being in charge but is about taking care of those in your charge'. The message here is simple: being a leader is not about you but the others working with you. It is not about 'I' but the 'we'. Given this, when I try to put myself in the shoes of those who evaluate my performance on previous occasions, I clearly understand that I fail to demonstrate this in the professional environment. Independently of my belief that I had the required skills to do the job, I was passing an image too focused on myself, my career, my future and my ambitions. Somehow, I did not pass the message and reassurance to the stakeholders that I could still be myself, be able to value, respect, empower the team and value the 'we'. Independently of my strengths or weaknesses, I didn't manage to show enough balance at the time. For example, when the adult congenital specialism didn't have a lead in the post, I stepped up on some occasions to help, and some of my actions ended up having the opposite effect on the stakeholders. Everything has a context, and this journey shows me that I must remain aware of liabilities to all my strengths and find opportunities in all my weaknesses.

Over the last two and a half years, I worked hard to exploit my weaknesses daily until I found the consistency I needed to show myself that I could do it and, consequently, to all my peers and stakeholders. As a leader, I am responsible for ensuring that my team feels valued and respected to achieve success because everyone's achievements will also be the team's achievements. I demonstrated in many ways the importance of working and developing more efficient personal and communication skills with everyone involved in the congenital and overall cardiac department. I adopted a servant and collaborative leadership style, avoiding micromanagement at all costs and empowering the team. Promoting reflective practice is crucial alongside a culture of inquiry, fostering an environment where questioning and exploring different solutions are encouraged. Everyone on the team should feel comfortable promoting open communication and exchanging ideas. Simultaneously, I worked closely with peers and stakeholders to develop new ways of improving the congenital echocardiography department, optimising existing services and developing innovative ways to deliver the cardiovascular directorate goals. I also worked in new educational programmes at regional and national levels with a particular interest in the LifeLong ACHD clinical network. There is still a lot to be done, but so far, we have managed to make good progress in some areas, and I'm very proud of everyone's work and collaboration.

"Everyone on the team should feel comfortable promoting open communication and exchanging ideas."

I know that I will not be able to please everyone, and if that's the result of feedback from the team, I believe I did a good job. It is unrealistic to please and make everyone happy in a work environment like the NHS. There were failures, and on most of the occasions, I looked for support from my senior peers and allowed time for discussion and personal introspection because no one is better than anyone when they reach the top or worse when they reach the bottom. There is always room for improvement, and I will keep working. Sometimes, the leadership process is intense, even so, I would accept the challenge again. Ultimately, I became better personally and professionally, with more consolidated principles and values of leadership and management at a higher level. Undoubtedly, I am ready for new and more complex challenges that will eventually come up in my professional career, whatever they may be.

Dario Freitas *is a Clinical Scientist and lead for the Adult Congenital Heart Disease (ACHD) Echocardiography Department at Guy's and St Thomas' NHS Foundation Trust, focusing on team development including the ACHD Scientist-led clinic. Additionally, Dario also supports the colleagues in the Congenital Heart Disease LifeLong network.*

WALKING THE TALK: LEADERSHIP IN SERVICE OF PUBLIC HEALTH

Adeboye Ifederu, Great Ormond Street Hospital

Born to Nigerian parents, I grew up in Nigeria, where I graduated from its premier institution, the University of Ibadan, with a BSc (Hons) degree in Biochemistry. My memories of growing up in Nigeria are still vivid, with its insistent, vibrant society, rich cultural tradition, and good education. Striving for excellence was just the right thing to do, and soon after graduating in 1988, I sought to pursue postgraduate studies in the UK.

My first NHS employment as a Medical Laboratory Scientific Officer trainee was at the Royal Marsden Hospital, London in September 1989. During my registration, I passed my Fellowship exams in Clinical Sciences at the Polytechnic of Central London (PCL), now University of Westminster. I joined the Great Ormond Street Hospital as a basic grade laboratory scientist in the autumn of 1994 to develop my interest in Paediatric Laboratory Services. A decade later, I was appointed the Senior Biomedical Scientist in routine Biochemistry, a post I held for 2 years before becoming the Lead Healthcare Scientist for the North Thames Regional Newborn Bloodspot Screening Services. In this role, I led the introduction of cystic fibrosis, sickle cell, and thalassemia into the laboratory screening panel.

In 2010, I was appointed Head of Newborn Screening, responsible for piloting the expanded newborn screening programme. This pilot introduced four additional inherited metabolic conditions (Maple Syrup Urine Disease, Isovaleric Acidaemia, Glutaric Aciduria type I, and Homocystinuria-pyridoxine responsive) to the UK screening panel. My expertise in Tandem Mass Spectrometry, a technology that has revolutionised newborn screening, has not only benefited my career success but also had a significant impact on public health, offering hope to many families.

Approaching three decades as a healthcare scientist, I decided to explore a career in the NHS senior leadership operations, where I could use my well-established management and people development skills. I knew the inherent challenges of navigating senior leadership circles from a purely scientific background. Enrolling on the ReadyNow NHS Senior Leadership programme was a significant turning point for my aspiration to pursue this goal. Transitioning from a technical role to a leadership position was indeed challenging, but I was determined to succeed, and I did.

Building on my success in the ReadyNow Programme, I was the founding Chair of the Black and Ethnic Minority Staff Network in my Trust. This was a unique opportunity to support the delivery of the Equality Diversity and Inclusion (EDI) agenda at the Trust Board level and among all staff groups

Adeboye Ifederu, *Deputy Chief of Service for Core Clinical Directorate and Head of The North Thames Regional Newborn Bloodspot Screening at the Great Ormond Street Hospital, shares his fascinating career demonstrating his commitment to public health.*

in my organisation. My efforts were recognised in 2017 when I received the Leader of the Year Annual GOSH Staff Award for my exceptional leadership drive. In 2019, as part of the NHS@70 celebrations, I received the Nigerian Healthcare Professionals UK Excellence Award for outstanding professionalism and contribution to advancing healthcare practice in the UK. These accolades are a testament to my commitment and success in the NHS, and I hope they inspire confidence in my abilities.

My transition from leading laboratory services to joining the clinical operations team finally took place in autumn 2021 when I became the Deputy Chief of Service (DCoS) for the Core Clinical Directorate. In this role, I oversee the directorate of Patient Safety and Quality, including managing risks and Serious Incidents. The Core Clinical Services include Theatres, Pharmacy, Therapies, Laboratory, Radiology and Clinical Genetics, making it the largest directorate in the organisation. The ability to draw insights from performance data while assuring the Executive Board is a key attribute displayed in my DCoS role. Executive leadership coaching has also helped me contribute positively to the Senior Leadership Team (SLT).

My time investment in leadership programmes over the last decade makes me highly suited for a new role at the board level aimed at contributing to the wider NHS. I completed the Nye Bevan Programme for Executive Directors in 2023 and was nominated by my Trust Board to join the NCL Future Leaders Programme in 2024.

My passion has always been a systematic contribution to global public health screening programmes. My hope for the future is to see an equitable healthcare system where the quality of care through early diagnosis, innovation, and best clinical practice is evident in our local communities. This vision is not just a dream but a tangible goal that we can work towards, as evidenced by the recently published ambitions of the NHS long-term plan, underlined by three significant shifts in healthcare: Hospital to Community, Analogue to Digital, and Sickness to Prevention. My commitment to public health is unwavering, and I am dedicated to making this vision a reality, providing reassurance and confidence to those I lead.

RESEARCH HANDBOOK ON LEADERSHIP IN HEALTHCARE

Professor Naomi Chambers, professor of healthcare management, Alliance Manchester Business School, University of Manchester outlines the purpose and scope of the *Research Handbook on Leadership in Healthcare* (2023) which she edited.

It is published by Edward Elgar Publishing.

"The book stands out for its in-depth exploration of contemporary leadership theories and practices tailored to the unique challenges and opportunities faced by healthcare leaders today....Although not explicitly aimed at such groups, sections of the book are useful for early career professionals in healthcare aiming to understand the landscape of healthcare leadership and seek guidance on potential career paths.... each chapter is written as a self-contained exploration of a specific theme or topic, allowing readers to focus on areas of interest and review the text in a more targeted manner...." (BMJ Leader book review, 2024)

Naomi Chambers

There is growing evidence that good leadership does make a difference in patient care experiences, safety, clinical effectiveness, staff well-being, and productivity. However, persistent and stark variation in the quality of leadership remains, which has a wide range of detrimental impacts. This book is a call to action to embrace a technology-enabled yet humane future, with a more dispersed distribution of power across a diversified workforce and more fully engaged patients and communities.

The target audience includes managers, policymakers, scholars, students, and frontline professionals seeking to deepen their understanding of leadership and management in healthcare settings. The book comprises 42 standalone chapters centred on five key themes related to healthcare: the leadership landscape, theories and frameworks for understanding leadership, the moral compass of leadership, international case studies, and leadership development. It adopts a deliberately international perspective, with 90 authors across 18 countries. These authors are distinguished academics and practitioners in their fields, all focused on the challenge of describing and realising effective leadership.

Those who joined the Higher Specialist Scientist Training (HSST) programme in autumn 2023 will be familiar with some of the content, as it serves as a core textbook for the management and leadership component of the course. The chapter written by Simon Moralee and Berne Ferry on "New professions and leadership: the case of healthcare scientists in the United Kingdom" will be of particular interest to healthcare scientists. Other chapters concerning organisational cultures, workforce issues, emotional intelligence, quality improvement, and ethical approaches to leadership will also resonate with those grappling with strategic and operational challenges in their workplace.

The handbook addresses current controversies while remaining future-focused. It also facilitates a deeper understanding of effective management and leadership approaches within the intricate healthcare system.

AWARDS AND RECOGNITION

This new section presents a non-exhaustive compilation of information regarding recent awards and recognition within healthcare science. It highlights various individuals who have been honoured for their significant contributions to patient care, innovation, the NHS, and the broader healthcare science profession.

Key recognised individuals and their respective awards include:

- Professor Peter Hogg, who received a BNMS Radiographers, Technologists & Nurses Award from the British Nuclear Medicine Society.
- Debra Padgett, former president of the Institute of Biomedical Scientists (IBMS), who was awarded an Honorary fellowship of the Royal College of Pathology.
- Stephen Merridew BEM, an IBMS Fellow and retired senior biomedical scientist, who was awarded the British Empire Medal (BEM) in the 2025 King's Honours for significant career contributions to the NHS and the biomedical science profession.
- Kathy McFall, Institute of Medical Illustrators (IMI) Education lead, who was shortlisted for the Healthcare Science in Scotland, Chief Scientific Officer's Awards.
- Andrea Jones, IMI England representative, who won the Northwest Healthcare Science 'Lifetime Achievement Award'.
- Ruth Thomsen MBE, Scientific Director for NHS England, who was awarded an MBE for her services to healthcare science in the King's Honours.
- Dr Kerrie-Ann Davies MBE, Principal Clinical Scientist and Lead Scientific Advisor at the Health Security Agency, who received an MBE for services to Healthcare Science, specifically recognising pivotal contributions during the COVID-19 pandemic.
- Dr Shara Cohen BEM, IBMS Fellow and CEO, who was awarded the British Empire Medal (BEM) in the King's Honours for Dedication to Women in STEM and Cancer Patient Support.
- Dr Karl Sylvester, Consultant Respiratory Healthcare Scientist, was awarded the ARTP special award 2025 for Services to Respiratory and Sleep Sciences at The Association for Respiratory Technology and Physiology (ARTP) annual conference in Glasgow on 2nd May 2025.

The sources emphasise the vital role healthcare scientists play in advancing patient care, innovation, and the future of the NHS. Despite these pivotal contributions, their efforts often go unrecognised. Nominating colleagues for honours such as the King's Honours is presented as a powerful mechanism to celebrate their impact and elevate the profile of healthcare science.

Individuals are encouraged to highlight their own or their colleagues' recent achievements or awards for potential inclusion in upcoming editions of the Healthcare Science Leadership Journal by contacting leadershipjournal@ahcs.ac.uk. This process aims to further shine a spotlight on the remarkable achievements within our profession of healthcare science.

WRITE FOR THE JOURNAL!

Articles published already in this Journal have encouraged and informed individual readers, fed into regional NHS policy and raised the profile of both contributors and the profession.

Through the Journal, the Academy for Healthcare Science seeks to develop leadership thinking and to encourage every individual to grow towards their full potential, across both healthcare science and clinical research practitioner workforces. We welcome article submissions that discuss leadership in healthcare science as well as those presenting relevant leadership issues from other areas. Examples of articles published so far include:

- Writing up change projects that provided leadership insights and skills;
- Describing leadership lessons learnt from a particular experience;
- Looking at leadership theories and ideas and highlighting how they can be applied in a particular context;
- Discussing ethical and moral issues faced by leaders, such as how to motivate others, deal with interpersonal conflict, encourage diversity and retain personal integrity;
- Documenting personal experiences of leadership and change;
- Exploring leadership strategy and policy; and
- Building networks and coalitions to achieve change.

If you are interested in writing for the Journal or want to submit an article please send your ideas to leadershipjournal@ahcs.ac.uk. If you would like to contact the current editors for further discussion and support please use the same email address. Guidance for contributors and previous editions are available at https://www.ahcs.ac.uk/about-us/hcs-leadership-journal/