LabMedNews

Association for Laboratory Medicine

DECEMBER 2025

- LabMed responds to 10-year workforce plan call for evidence
- LabMed supports pioneering research through 2025 grant awards
- Get involved: committee vacancies now open across LabMed
- Getting it right for the patient – are we good enough?
- Become a LabMed Trade Union regional representative
- Submit your abstracts for LabMedUK26
- Achieving EFLM Green Labs accreditation
- Healthcare inequalities; responsibility to educate ourselves

High Performance, Less Environmental Impact. Switch Today!

SPECIAL OFFER*
SAVE 20%
Offer Code: ECO1025

nerbe plus
GERMANY

EcoRack Premium Surface Tips

Your laboratory's sustainable pipette tip solution.

Eco-Friendly Packaging

Planet Conscious Container 100% recyclable outer shell with reusable base that cuts plastic waste by up to 60%.

Space & Emissions Saving Design – Stackable format saves space and reduces transport emissions.

High Performance

Crystal clear transparency and sterility.

Ultra-smooth premium surface low retention tips.

Universal tip fit.

sustainable
think green
act green

Watch the video!

Upgrade your laboratory's performance and sustainability today!
For more information or to purchase please visit:
*Expires 31/01/2026
alphalabs.co.uk/ecorack

50 YEARS OF TRUST
alpha laboratories
Advancing Healthcare and Science Together
0800 38 77 32
info@alphalabs.co.uk • www.alphalabs.co.uk

CONTENTS

DECEMBER 2025

Association for Laboratory Medicine

LabMed News ISSN 3033-3814

MESSAGE FROM THE CEO

VICTORIA LOGAN
Chief Executive Officer

As we wrap up another busy year at the Association for Laboratory Medicine, I'd like to highlight some of the excellent work by our members and the wider pathology community over recent months.

We were pleased to mark National Pathology Week in November. Ian, Kath and I attended a Westminster event hosted by RCPath and sponsored by Simon Opher MP, which showcased pathology's vital role in delivering the NHS 10-year Health Plan and offered valuable insights into workforce, digital, and community care priorities. The Pathology Alliance also hosted an engaging webinar, 'Pathology Solutions: How Tests Help Patients', aimed at students. Several LabMed members presented, raising awareness of our profession and highlighting the work of Lab Tests Online UK. Video highlights will be available on our website soon.

We recently promoted the DHSC consultation on the 10-year workforce plan and hope many of you were able to contribute, alongside our organisational response submitted on behalf of members.

Collaboration continues to be central to our work. We're working closely with the IBMS and RCPath on the Carter IV report, following a productive stakeholder meeting in November and earlier discussions with Lord Carter at IBMS Congress. Our partnership with the Microbiology Society remains strong under our Memorandum of Understanding, including a special *Journal of Medical Microbiology* issue on infectious disease diagnostics and a joint response to a consultation proposing greater flexibility for pharmacists when dispensing medicines. In November Ian and I met with the Australasian Association for Clinical Biochemistry and Laboratory Medicine (AACB) to agree a new MOU.

Our Roche webinar series continues to attract excellent engagement, with sessions on social value, AI and digital transformation, biomarkers in Alzheimer's disease, and mass spectrometry – all now available to view on our website.

In November we welcomed trainees to RCPath for our annual training day, including an excellent Freddie Flynn Lecture from Gwen Wark on immunoassays. The following day's National Audit Meeting, focused on testosterone and tumour markers and raised some interesting challenge and discussion around testing for prostate cancer.

Thank you all for your hard work and commitment this year. Wishing our members a restful festive season and every success in the year ahead.

GastroPanel®

Rethinking gastroscopy **referrals** to improve case-selection

Detects atrophic gastritis before endoscopy
Prioritise referrals according to clinical need

Streamlined diagnostic pathway
Early detection and diagnosis for timely intervention

Simple, non-invasive blood test
Available as a lab service or point-of-care test for clinics

SCAN TO LEARN MORE

BIOHIT
Innovating for Health

+44 151 550 4 550
info@biohithealthcare.co.uk
biohithealthcare.co.uk

LABMED RESPONDS TO 10-YEAR WORKFORCE PLAN CALL FOR EVIDENCE

A response was submitted on behalf of LabMed to the government's call for evidence to help shape the forthcoming 10-Year Health Workforce Plan for England. The 10-year plan in England outlines an ambitious vision to transform healthcare delivery through three key shifts – from hospital to community, analogue to digital, and sickness to prevention – but success will depend on having the right workforce to lead and deliver these changes.

LOUISE HAWKE
Workforce lead

LabMed's submission highlights the essential contribution of laboratory professionals in the NHS in achieving these ambitions, with members already leading innovation across UK pathology services. Examples from recent LabMed conferences and awards include:

- Introduction of clinical decision support and AI tools to ensure appropriate test requesting, automate analysis and interpretation, and improve productivity, consistency and patient care.

- Verification of capillary sample use for analysis, enabling self-collection and improving access to laboratory testing, particularly for patients with long-term conditions or those for whom venous sampling is challenging.
- Deployment of point-of-care testing (POCT) devices in community and primary care settings, providing rapid results to support clinical decision-making, virtual wards, hospital@home services and preventative health checks.
- Expansion of clinical scientist roles in microbiology, supporting antimicrobial stewardship and infection prevention and control, vital to effective preventative care.
- Development of dedicated POCT teams to ensure appropriate governance, training, and quality assurance, maximising the safety and effectiveness of these services.

Our submission also identified key barriers, including limited laboratory involvement in community-based diagnostics, lack of infrastructure and resources, and restrictive or outdated training pathways.

We highlighted that LabMed continues to advocate for dedicated job planning, national CPD funding, and flexible, realistic training programmes, including in microbiology and virology, to address consultant shortages and future workforce needs.

To support productivity and professional growth, LabMed has established an online learning academy, the AI special interest group, the Patient centric sampling conference and special interest group and a mentoring platform to foster leadership and peer support. Its collaboration on Lab Tests Online UK, now linked to the NHS App, promotes patient understanding and engagement with diagnostic services. Working with the pathology alliance we have participated in webinars to promote the profession to students during national pathology week.

LabMed's evidence emphasised that laboratory professionals are central to the NHS of the future – driving innovation, safeguarding quality and underpinning the shift to preventative, digitally enabled, community-based care.

LABMEDUK25 ABSTRACTS

The LabMedUK25 conference abstracts supplement is now live on the LabMed website, offering members the chance to explore the research, service improvements and case studies presented at this year's meeting in Manchester. The LabMed conference abstract supplements for the past five years – 2021 to 2025 – are now available for members to read and download.

You can access the supplements via our Annals of Clinical Biochemistry and Laboratory Medicine resources page.

The supplement is published each year as part of the *Annals* and includes the full collection of poster abstracts accepted for LabMedUK25.

If you were not able to attend LabMedUK25, these abstracts provide an overview of the themes, challenges and innovations shaping laboratory medicine today. They also highlight the diversity of voices contributing to our field – from early-career scientists to established leaders.

We hope you enjoy exploring this growing archive, and we look forward to celebrating more scientific achievements with you at LabMedUK26 in Birmingham next year.

LABMED SUPPORTS PIONEERING RESEARCH THROUGH 2025 GRANT AWARDS

We are delighted to announce the recipients of the 2025 Research and Innovation Grants. This year's awards recognise three projects that aim to advance diagnostic science, improve patient outcomes and open new avenues for clinical innovation.

These awards continue LabMed's commitment to investing in early-career scientists and supporting high-quality research that drives the profession forward.

What is the Research and Innovation Grant?

At LabMed, we are committed to supporting high-quality, original and ethical research. We encourage applications from multi-disciplinary and multi-centre research as well as collaborations with industry.

The grant provides funding up to a total of £20,000 overall, supporting three to five projects each year.

Understanding PCSK9 and inflammation in critical illness

Awarded to: Emma Crossley
Grant value: £7,700

Emma Crossley, a final-year PhD candidate at the Wellcome-Wolfson Institute for Experimental Medicine, Queen's University Belfast, is investigating the role of Proprotein Convertase Subtilisin/Kexin type 9 (PCSK9) in life-threatening respiratory disease.

With a background in biochemistry and a growing research focus in respiratory and critical care, Emma is exploring how PCSK9 contributes to inflammation in Acute Respiratory Distress Syndrome (ARDS) – a condition with high mortality rates and no current pharmacological treatments.

This grant will enable Emma to deepen her investigation into the mechanistic role of PCSK9 in ARDS, including its impact on alveolar fluid clearance. Her work may also help reveal whether PCSK9 inhibitors, already licensed for dyslipidaemia, could be repurposed as a novel therapeutic strategy for ARDS.

Improving prediction of renal transplant outcomes

Awarded to: Harry Thynne
Grant value: £8,000

Harry Thynne, a Clinical Scientist in Virology and Molecular Pathology at University Hospitals Coventry and Warwickshire NHS Trust, has been awarded funding to enhance understanding of renal transplant outcomes.

His project will investigate whether temporal changes in Torque Teno virus (TTV) levels offer a more accurate predictor of disease progression in kidney transplant recipients (KTRs) previously infected with CMV. While earlier studies have focused on defining standardised TTV cut-off values, Harry's research will instead examine how individual deviations from a patient's own baseline could better indicate risk following CMV reactivation.

The findings have the potential to strengthen personalised monitoring strategies and improve long-term management for transplant patients.

Exploring free lambda light chains in multiple sclerosis

Awarded to: Sally Hanton
Grant value: £4,160.94

Principal Clinical Scientist Sally Hanton has been funded to investigate the diagnostic and clinical relevance of free lambda light chains (λFLC) in cerebrospinal fluid from patients with multiple sclerosis (MS).

Part of a broader programme within the Neuroscience Laboratories at the Walton Centre NHS Foundation Trust, this study aims to use electrophoretic methods to detect and measure λFLC in CSF and assess how these findings correlate with clinical outcomes. Although κFLC measurement is increasingly established in MS diagnosis, the behaviour and utility of λFLC remains less well understood.

Sally brings extensive research experience, having completed a PhD and six years of postdoctoral work in intracellular protein transport before retraining as a clinical scientist in 2009. Her current interests include novel protein and autoantibody detection in neurological disease, alongside therapeutic drug monitoring using UPLC-MS/MS.

GET INVOLVED: COMMITTEE VACANCIES NOW OPEN ACROSS LABMED

LabMed is inviting applications for a series of key leadership and committee roles that will shape the future of our Association and strengthen support for members across the UK and Ireland. If you are passionate about championing laboratory medicine, supporting colleagues and influencing the profession at regional and national level, now is the perfect moment to step forward.

Please also see our separate article about Trade Union regional representatives on pages 22-23.

Regional chair opportunities

We are currently recruiting four regional chairs – pivotal roles that place you at the heart of LabMed's governance and member support:

LabMed North West chair

LabMed Southern chair

LabMed West Midlands chair

As a regional chair, you will do more than lead a committee. You will become a director of LabMed and sit on LabMed Council, ensuring your region's voice and priorities shape the national agenda. These are ideal roles for collaborative, motivated members who want to strengthen our professional community and support colleagues at every career stage.

Full role descriptions can be found by clicking on the region:

- **North West**
- **Southern**
- **West Midlands**

Chair, Clinical Sciences Reviews Committee (CSRC)

We are also seeking a new chair for the Clinical Sciences Reviews Committee – a role central to LabMed's educational and publishing mission.

The CSRC Chair oversees the commissioning of review content for publication, coordinates the committee's work and plays a key role in recognising excellence through the Poster Prize at LabMedUK.

This role is well suited to members with experience in scientific publishing, editorial work or LabMed committees and who are keen to support high-quality learning and scholarship across the profession.

More information can be found here.

LabMed South West & Wessex (SW&W) committee roles

Four rewarding committee positions are now available as part of our vibrant SW&W regional team:

- **Secretary** – coordinate meetings, agendas and minutes
- **Communications lead** – strengthen communication and engagement across the region
- **Green Champion Liaison** – support sustainability initiatives and link to national Green Champions
- **Equality, Diversity and Inclusion Liaison** – embed EDI principles within regional activity and membership

These roles offer excellent opportunities for early-career and experienced members

alike to help shape a supportive and inclusive regional network.

More information can be found here.

Why apply?

Volunteering with LabMed is a powerful way to:

- Influence the direction of laboratory medicine nationally
- Build leadership, governance and communication skills
- Expand your professional network
- Support colleagues and help strengthen our multidisciplinary community

If you are ready to contribute your expertise and enthusiasm, we encourage you to explore the full details on the LabMed website and consider applying.

LabMed thrives because members like you choose to get involved – and your voice could be the one we need next.

GETTING IT RIGHT FOR THE PATIENT – ARE WE GOOD ENOUGH?

BY RACHEL MARRINGTON AND GARETH DAVIES

2025 is the year that patients demanded better. 2025 is the year that clinicians started questioning laboratories. 2025 is the year that some laboratories started to question their own practices. 2025 is the year of start of change … well for diabetics at least!

So, how did we get here? Late 2024, concerns were raised by a few laboratories regarding the increased number of patients being classified as 'diabetic' or having 'non-diabetic hyperglycaemia'. This was later reported by the BBC as at least 55,000 people needing further blood tests. Luton and Dunstable Hospital was the index case and soon became the 'marriage guidance counsellor'. The due diligence of Danielle Freedman, David Housley and their team quickly identified that there was a problem and patients were being impacted. It was soon found that there were 'problems' in other laboratories using the same equipment. The incident was reported to various national organisations back in August/September 2024. Frustrations about lack of progress in tackling the issue led to Martin Myers (GIRFT Pathology Co-Lead), to be brought in during March 2025. Things have only moved at a national level since Martin arrived on the scene. More than a dozen hospitals have been affected and 10,000s of patients impacted. The 'Getting it right

The speakers and panellists

for the patient – are we good enough?' webinar was initiated to raise awareness, share what happened and to get people talking about what we are going to do now to ensure nothing like this happens again. The webinar was a collaborative exercise between GIRFT, Bedfordshire Hospitals, Birmingham Quality and Weqas. There was no sponsorship, no cost to the participants and over 1000 registrations. This demonstrates that you, the laboratorians, do care about the patient and not just the numbers.

Danielle chaired the webinar and began by saying that she was first interested in HbA1c in 1978, before most of the audience was born! Martin was the first presenter. He reflected on how he had been brought in to advise on the incident and said that he did not like what he had seen – *"I think our profession needs to reflect about this incident and what we can learn from this ...."*. Martin did a rapid review of the roles of the key stakeholders, but left us hanging with 'Is good, good enough?' The Association for Laboratory Medicine has been asked to address this and to ensure that they are included in all NICE diagnostic algorithms that include 'magic numbers'.

Danielle then gave a very insightful session based on the patient's perspective. It is so easy for us to forget that there is a patient behind every sample. One incorrect result can have life changing consequences for the patient. Two cases were presented where patients were incorrectly diagnosed which meant they would receive medication and screening checks that they didn't need (all at the expense of the NHS). Potentially more importantly to the individual, they were 'labelled' with a condition that they did not have, which ultimately could impact future insurance, personal life and overall well-being.

David Housley went on to discuss the laboratory perspective and discussed how the issue was investigated and

subsequently managed. There were many lessons for other laboratories to learn here!

What followed was probably the most interesting session of the webinar, a live debate discussing what is more important 'Patients vs Laboratory Processes'? Delegates had been asked to submit questions ahead of the debate and a number were chosen for discussion by the panel, which also included Ian Godber (LabMed president), and Eric Kilpatrick (chair RCPath Clinical Biochemistry SAC). Here we were able to find out a bit more about the role of the professional organisations and EQA providers.

The final two speakers were Annette Thomas and Finlay MacKenzie, directors of Weqas and Birmingham Quality, respectively. Annette gave an overview of Analytical Performance Specifications (APS) and how it is important to consider the clinical utility of the test. In the case of HbA1c, different APS may be required for diagnosis and monitoring purposes. Finlay finished the main session by showing the variation in results that can be expected from a single specimen if analysed by a large number of different methods. And even where two samples have a similar reference value, results can differ between assays, possibly due to measurement of different glycated haemoglobin species.

Martin summarised the webinar as a *"great reminder of the impact on the patient"*. We have known for a long time

that we are not good enough and real improvement will require collaboration from all relevant stakeholders. This episode should act as a springboard to ensure that the lessons learned will be translated into routine practice to ensure a renewed focus on patient-focused pathology.

There were over one hundred questions submitted prior to the webinar and the groundswell of positivity that we received in feedback after the webinar was truly incredible. Now, the speakers may have had 200 years of experience between them, but it is incumbent on the current crop of scientists, medics and laboratory professionals to take this forward, bringing the new entrants into the profession with them. This initiative may have all started with half a dozen or so keen and pushy people and was focussed on HbA1c, but we all need to widen the scope and get out there and make things better for the patient.

A recording of the individual sessions is available and has been sent to all who registered for the webinar.

Thank you to everyone who was involved.

CONDOLENCES

It is with regret that we inform you of the sad news that the following Members have died:

Member John Shepherd recently passed away. John joined the Association in 2003 and was a current full Member (based at NHS Humber, Hull Royal Infirmary) at the time of his passing. John held the roles of Regional tutor for Yorkshire (2011-2014) and an ACS assessor nominated by the Association (2013- to the time of his passing).

Retired member Dr James Hooper died last month. Dr Hooper joined the Association in 1986 and held retired membership from 2019. During this time, Dr Hooper held the roles of Chair of the Publications Committee (1992-1996), Member of the Scientific Committee (1994-1996), National Member of Council (1998-1999), Member of the Education Committee (1997-1999, 2006-2017), and Member of the Clinical Practice Section (2008-2017).

John G. Lines died peacefully at home on 25 September 2025, age 90. He helped create the original *ACB Newsletter* (now *LabMed News*) back in the 1960s and was editor from 1967-1976. He was continuously involved with ACB publications and also with the Association's affairs from serving on Midlands and Southern Region ACB committees to being the first Corporate Members liaison officer (1980-1983). In 1974 he led the team which developed *Current Clinical Chemistry* and remained editor of that journal for many years. He was also editor of the *IFCC News* (International Federation of Clinical Chemistry) from 1975-1988. John had a lifelong professional interest in the history of Clinical Chemistry and was a member of the ACB Historical Committee. In 1996 he co-authored a book with Peter Broughton titled *The Association of Clinical Biochemists 'The First Forty Years',* documenting the history of the ACB from its inception in 1953. This was followed by the book *IFCC Celebrating 50 Years* with Jacques Heeren in 2001.

MENTAL WELLBEING

The festive season is often known for boosting our mental wellbeing – fostering connection, creativity and community, as we reminisce about favourite films and memories while enjoying festive dishes. Yet it can also be a time that challenges our mental health. While many enjoy the celebrations, others may experience increased stress, anxiety or loneliness.

So, let's spread some festive cheer through different initiatives that align with you e.g. joining Save the Children's Christmas Jumper Day, tackling food poverty in your local area, or simply sending a card or warm season's greetings. Small acts of kindness make a big difference.

For general mental wellbeing support and support around the festive season please visit: National support We're Mind, the mental health charity | Mind;
National and Local services via App Mental Health Support Network provided by Chasing the Stigma | Hub of hope

WELCOME TO INESA IEFIMOVA, A NEW NATIONAL MEMBER WITH AN EDI RESPONSIBILITY

INESA IEFIMOVA

Specialist biomedical scientist, Newborn Screening Laboratory, St Mary's Hospital, Manchester University NHS Foundation Trust

What (or who) inspired you to choose this career path?

My journey into clinical laboratory diagnostics began with my biochemistry degree at Donetsk State University and Clinical Ordinatura in Clinical Laboratory Diagnostics at Kharkiv Medical Academy of Postgraduate Education, Ukraine. I was drawn to the vital role that accurate laboratory testing plays in patient care – the idea that my work could directly impact treatment decisions and patient outcomes was deeply compelling. The intersection of scientific rigour and healthcare service inspired me to pursue this path.

What does your role involve on a day-to-day basis?

As a specialist biomedical scientist in the Newborn Screening Laboratory at St Mary's Hospital, my day involves conducting technical and clinical validation of tests, reviewing internal quality control results and taking corrective actions when needed. I work with various laboratory analysers, ensure compliance with SOPs and maintain the high standards of accuracy essential for newborn screening. Clear communication with colleagues about critical results is also a key part of my daily responsibilities.

What is the most rewarding part of your job?

The most rewarding aspect is knowing that my work directly contributes to patient care and early disease detection in newborns. Additionally, in my role as national member and director of the Association for Laboratory Medicine, focusing on diversity, ethnicity and inclusion, I find it incredibly fulfilling to create positive change that benefits laboratory staff across the broader sector.

What is one project or achievement of which you are most proud?

I was particularly proud to implement a root cause analysis program that reduced analytical errors by 40% at the Kharkiv Regional Clinical Traumatological Hospital. I also developed a structured training programme that achieved 100% staff competency across my team of 16 employees,

while implementing a mentoring system for junior staff. These initiatives improved both quality and team development.

What challenges have you faced in your career progression and how did you overcome them?

Relocating from Ukraine to the UK in 2022 was a significant challenge – adapting to a new healthcare system, different laboratory practices and obtaining UK-specific qualifications. I overcame this by obtaining my IBMS Diploma of Specialist Practice in Clinical Chemistry, maintaining CPD, and quickly learning new systems such as Beaker and Infinity. My ability to adapt rapidly and commitment to ongoing learning were essential.

What skill do you think everyone should develop?

Working effectively under pressure while maintaining accuracy. In laboratory medicine, this is critical – we must deliver reliable results on tight timelines because treatment decisions depend on them.
At first, I always develop a plan, break it into manageable steps, and, when possible, distribute work strategically among team members. This approach ensures quality never suffers, even in demanding situations.

What motivates you every day?

Putting the patient first in everything I undertake. Knowing that my work provides medical teams with accurate, reliable laboratory tests necessary for monitoring treatment effectiveness drives me daily. Additionally, my commitment to advancing diversity, equity, and inclusion in laboratory medicine motivates me to contribute to positive systemic change.

If you could give your younger self one piece of advice, what would it be?

Never underestimate the value of both technical excellence and leadership skills. While scientific knowledge is fundamental, the ability to manage teams, implement quality systems and communicate effectively amplifies your impact exponentially. Invest in developing both dimensions early in your career.

What's your favourite way to unwind after work?

I value my health and fitness highly, so I enjoy swimming, going to the gym and regular walks. Physical activity helps me maintain balance and clear my mind after the focused, precision-driven work in the laboratory.

What is your professional vision?

My vision is to continue advancing laboratory medicine through excellence in practice while championing diversity, equity and inclusion in the field. I aim to leverage my experience in quality management, ISO 15189 accreditation, and team leadership to improve laboratory services. Through my ongoing professional development – including my CMI Level 7 Diploma in Strategic Management and Leadership, and Quality Control Management Certificate – I want to help create more equitable, high-performing laboratory environments that ultimately deliver better patient outcomes.

UPCOMING EVENTS

LabMed Residential Training Course

19-21 January 2026, Jubilee Hotel, Nottingham

Book here

Designed specifically for early-career scientific and medical colleagues in clinical biochemistry – both those in formal training programmes and those in the initial years post-registration – the LabMed Residential course 2026 offers an essential grounding in specialist clinical topics and practical knowledge to support preparation for the FRCPath examinations and the first steps into autonomous clinical practice.

We have limited availability left for this course. All spaces must be booked by midday on 21 December when bookings close.

LabMed National Update on Lipids

3 February 2026, online – 10-11am GMT

Book here

Join us for a focused national update on lipid testing and familial hypercholesterolaemia (FH), bringing together expert insights from Jaimini Cegla and Lisa Gritzmacher. This online session will explore the latest UK standards for lipid reporting, including developments in lipid profile composition and LDL-c estimation, before providing an important update on the reinstatement of the PASS patient-management software tool for FH. Designed for all professionals involved in lipid testing, cardiovascular risk assessment and FH services, this event offers practical guidance, clinical context and clear take-home actions to support high-quality patient care.

This webinar is free to all members.

LabMedUK26

8-10 June 2026 – Eastside Rooms, Birmingham

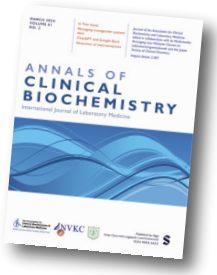
We're excited to announce that the official website will launch in January, when bookings will also open. The programme will feature a dynamic mix of plenary talks and specialist sessions covering:

- Advances in diagnostic neurology
- Diabetes, obesity and laboratory medicine
- Analytical performance specification
- Sustainability in healthcare
- Immunology
- Engineering the future of metabolic medicine

Submissions are now open for awards, posters and prizes.

Further details can be found here.

ANNALS OF CLINICAL BIOCHEMISTRY LATEST RESEARCH ARTICLES

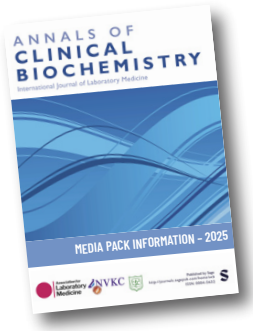


Check out these interesting new articles recommended for reading by the editors-in-chief of the *Annals of Clinical Biochemistry*:

Thyroid reference ranges in pregnancy utilizing an Abbott Alinity platform in a multi-ethnic population in the UK – V Scott, M Abdel-Malek, J Zhu, J Tan, D Thayabaran, R Valaiyapathi, P Padam, E Jackson, SC Barnes, H Fourie, M Al-Memar, C Kyriacou, M Nimura, T Bourne, NG Martin, R Agha-Jaffar, B Jones, B Khoo, TM-M Tan, 2025.

Variability in SHBG assays and the effect thereof on calculated estimates of free testosterone. J Walravens, J Adaway, T Reyns, N Narinx, J Afrakoma Nyamaah, L Antonio, J-M Kaufman, B Keevil, T Fiers, B Lapauw, 2025.

Click here to submit your work to the *Annals of Clinical Biochemistry.*



ADVERTISING IN ANNALS OF CLINICAL BIOCHEMISTRY

Promote your brand to a highly engaged audience of laboratory medicine professionals – advertising is now available in both the *Annals of Clinical Biochemistry* online journal and our member-wide emails. To find out more, contact Jason Brown, Advertising Manager, at jason@labmed.org.uk

PUBLICATION DATES

LabMed News is published on the 15th of the month. To guarantee publication, please submit your article by the 15th of the preceding month (i.e. 15th January for the February 2026 issue) to: editor@labmed.org.uk

We aim to be as flexible as possible and will try to accept articles up to the 1st of the month to be published if space allows. Otherwise they will be held over to the next issue. If we are aware that articles are imminent, this gives us more flexibility and we can reserve space in anticipation. If in doubt, please contact: Gina Frederick, lead editor, via the above e-mail.

Advertising in LabMed News

Promote your brand to a highly engaged audience of laboratory medicine professionals – advertising is available in both the *LabMed News* online version and our member-wide notification emails. To find out more, contact Jason Brown, Advertising Manager, at jason@labmed.org.uk

MERRY CHRISTMAS FROM *LABMED NEWS*

We think this spoof proof first appeared sometime between 2013 and 2018. Perhaps, like Christmas, it will be timeless. If you have a spoof proof that we should publish, please send it in. Meantime, Merry Christmas everyone!

$$y = \frac{\log_e\left(\frac{x}{m} - sa\right)}{r^2}$$

$$yr^2 = \log_e\left(\frac{x}{m} - sa\right)$$

$$e^{yr2} = \frac{x}{m} - sa$$

$$me^{yr2} = x - msa$$

$$me^{rry} = X\text{-mas}$$

HAPPY HOLIDAYS FROM *LABMED NEWS*

Thank you to everyone who has helped on *LabMed News* this year: Nikki Williams (for the design and layout of each edition), our fabulous associate editors and the wonderful LabMed staff at Tooley Street, especially Victoria and Tracy. They all do a brilliant job of ensuring that *LabMed News* is published on time every two months.

Thank you also to our members and everyone that has taken the time to send in articles – without you there would be no *LabMed News.*

I hope everyone has a relaxing Christmas break and we wish you all a healthy, happy and prosperous New Year!

Gina Frederick, Lead Editor

WELCOME TO OUR NEW MEMBERS

The Association is proud to introduce the following new members who have joined us since the last edition of *LabMed News*. Please extend a warm welcome to:

Faniya Abeed, Trainee clinical scientist (biochemistry), Northwest London Healthcare Trust, London

Sofyan Ahmed, Trainee clinical scientist, The Royal Wolverhampton NHS Trust, Wolverhampton

George Biggin, Trainee clinical scientist, Cambridge University Hospitals, Cambridge

Kevin Brown, Biomedical scientist, NHS Greater Glasgow & Clyde, Glasgow

Cate Bulmer, Chemical pathology registrar, Aberdeen Royal Infirmary, Aberdeen

Kristina Emsell-Needham, Principal clinical scientist, Hull Royal Infirmary, Hull

Kathryn Hennessey, Trainee clinical scientist, Whiston Hospital, Prescot

Laura Hinchliffe, Principal clinical scientist, St James Hospital, Leeds

Nusrat Hussain, Associate professor, Dr Qadri's Clinical Laboratory, Jammu and Kashmir, India

Hemachandra Kamasani, Chemical pathology registrar, Heartlands Hospital, Birmingham

Dulari Thamarashee Marapana Mahim Bandara Marapana Ralahamillage, Biomedical scientist, Royal United Hospitals Bath NHS Foundation Trust, Bath

Shoon Lae Maw, Medical laboratory assistant, Northwick Park Hospital, Harrow

Olivia Middleditch, Trainee clinical scientist (biochemistry), East and North Hertfordshire NHS Trust, Stevenage

Carys O'Sullivan, Trainee clinical scientist, Countess of Chester Hospital, Chester

Anish Patil, Chemical pathology specialty trainee, Salford Royal Hospital, Salford

John William Pennington, Doctor, Leeds Teaching Hospitals NHS Trust, Leeds

Elsa Prendergast, Trainee healthcare scientist, Leeds Teaching Hospitals NHS Trust, Leeds

Shek Rahman, Clinical scientist, St George's University Hospital, Tooting, London

Gabriella Richardson, Trainee healthcare scientist, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield

George Sandy, Trainee clinical scientist, Portsmouth Hospitals University NHS Trust, Portsmouth

Eliza Smith, Trainee clinical scientist, University Hospitals North Midlands NHS Trust, Crewe

Molly Wroe, Trainee clinical scientist, Leicester Royal Infirmary, Leicester

Students

Evelyn Alfred, University of Salford, Manchester

Hema Chandan Kumar Dussa, Parul University, Gujarat, India

Halima Hasan, Imperial College London, London

Shagufta Kausar, International Islamic University, Islamabad, Pakistan

Grace Obasuyi, University of Benin, Benin City, Nigeria

Amelia Oram, University of Liverpool, Liverpool

BECOME A LABMED TRADE UNION REGIONAL REPRESENTATIVE

We're looking for new LabMed Trade Union regional representatives across the UK.

LabMed's Trade Union is unique in being run by clinical scientists, for clinical scientists, with full national recognition and negotiating rights across the NHS, UKHSA and NHS Blood and Transplant. Our representatives ensure that our voice is heard in local, regional and national discussions on industrial relations, employment conditions and workplace issues.

We are now looking to expand this network and encourage members to consider whether this could be the right next step in their professional development.

What does a regional representative do?

Regional representatives play a key role in ensuring members receive timely, informed support. Their responsibilities include:

- Accrediting and maintaining contact with local workplace reps within their region
- Attending three to four online national Trade Union committee meetings per year
- Joining online training sessions on industrial relations and negotiating topics
- Being available for occasional rapid response calls on urgent issues
- Preparing activity updates for regional meetings and an annual report for the AGM
- Acting as the first point of contact for workplace reps seeking guidance or escalation
- Representing LabMed at regional NHS workforce or trade union groups
- Staying aware of emerging issues affecting clinical scientists, for example through monitoring NHS Employers
- Ensuring a comprehensive handover at the end of their term

The role carries a three-year term with the option to extend for a further three years.

Full training and support

No one is expected to undertake rep duties alone. Regional representatives have access to:

- The support of the LabMed Trade Union national committee and officers
- Guidance from experienced Trade Union colleagues
- Professional legal advice via our agreement with the Chartered Society of Physiotherapy

This ensures every rep can act confidently, effectively and within their comfort level.

Why become a rep?

Members who have taken on the role tell us they have gained:

- Greater insight into how their Trust and the wider NHS operate
- Enhanced negotiation, communication and leadership skills
- Increased confidence in handling workplace issues
- A sense of fulfilment from supporting colleagues and improving fairness and safety locally

Many report that the experience has directly contributed to their career progression, building capabilities that are valuable for senior roles.

Who can apply?

The role is open to full LabMed members who live or work within the region.
We particularly welcome expressions of interest from members across all specialties and career stages, including trainees.

No prior Trade Union experience is required – just an interest in supporting colleagues and improving workplace conditions.

Get involved

If you are interested in becoming a regional representative or would like an informal conversation about what the role involves, please fill in your details here.

This is an important and rewarding opportunity to contribute to the profession, build new skills and help ensure our members are represented where it matters.

We encourage all members to consider whether this could be the right role for them.

SUBMIT YOUR ABSTRACTS FOR LABMEDUK26

LabMedUK26 is being held at The Eastside Rooms in Birmingham between 8-10 June 2026.

Poster abstracts and prizes

Any professional, either in training or in work, can submit an abstract to be considered for a poster or a clinical case presentation.

Each applicant (who must be the first author, if submitting on behalf of a group) must certify that the work, or a substantial and clearly defined part of it, is their own work. Applicants should consider how their work contributes to EDI and sustainability values.

During the abstract submission process, authors can also indicate whether they would like their submission to be considered for one of the Conference Prizes, the Clinical Case Oral Presentation or the Medal Award, and/or for the opportunity to present the poster during the lunchtime Poster Showcase.

Please submit your abstract and select any prizes or awards you wish to enter by 9:00 am on 20 February 2025 (GMT). For more details and how to submit please visit the website.

Poster of the day Prize

This will be voted for by conference delegates during the conference. Prizes will be available for posters presented on each of the Tuesday and the Wednesday of the main conference. The winner for the Poster of the day Prize receives £100 and the runner-up receives £50.

Clinical Case Prize

Clinical Case submissions are reviewed by the Clinical Sciences Reviews Committee and the Clinical Case Oral Presentation session chair. At least two members of the group will review each poster. Those shortlisted will be invited to present their case during the interactive clinical case session within the conference programme. The winner for the Clinical Case Oral Presentation receives £100 and the runner-up receives £50.

Medal Award

Submissions for the Medal Award will be reviewed and shortlisted by at least four members of an Award Committee comprising the Association's president, past president or president elect, director of publications and communications, director of education, training and workforce, director of scientific affairs and clinical practice, the director of conferences and events and an EDI champion. The winner of the Medal Award receives £300 and the runner up £150.

Poster Spotlight

A Poster Spotlight will be held during the lunch break on each day of the main conference. This session will highlight work completed by delegates on some of the topics and themes of the conference. Abstracts will be reviewed by the conference session chairs and selected for a five minute slot to present an electronic poster. In 2026 the topics include: diabetes, obesity and weight management, sustainability and primary aldosteronism.

LabMedUK26: key dates

Whether you are submitting an abstract, applying for an award, booking as an exhibitor or just simply registering to attend LabMedUK26, here are some key dates for registration, poster abstract and award submissions for LabMedUK26:

The 2026 deadlines for poster abstracts and prizes are as follows:

- **The Foundation Award: 31 January**
- **Poster abstracts and prizes: 20 February**
- **The Medal Award: 20 February**
- **The Impact Award: Friday 28 February**

For more information on each of these awards, please visit the website.

Booking information

Delegate bookings open **19 January 2026**. To make the most of early bird bookings, please book before the closing date – **20 April 2026**.

Book here

Exhibitors book now

Bookings are now open for exhibitors at LabMedUK26. For availability and prices please visit the website.

LabMedUK26

Birmingham 8-10 June

SPONSORSHIP OPPORTUNITIES

ENGAGEMENT

Get your brand and products in front of a hyper-engaged audience of clinical scientists and laboratory medicine consultants.

BRAND

Build brand trust and loyalty through real experiences and showcase your values through meaningful sponsorship.

VALUE

Multiple package options available, with pricing to suit all budgets, including not-for-profits.

To discuss or book your sponsorship opportunity at LabMedUK26, please contact: **Tamsin Lawson,** Events manager, tamsin@labmed.org.uk

ACHIEVING EFLM GREEN LABS ACCREDITATION

CERYS MARCH
Principal clinical scientist – biochemistry, The Royal Marsden NHS Foundation Trust

The NHS has promised to reach net zero for the emissions it controls by 2040. That's 14 years away. Furthermore, it has pledged an 80% reduction by 2032, which is six years away. My youngest child is six, and it feels like the blink of an eye since he was born. I want to help the NHS achieve this goal so my son grows up in a world with an abundance of the insects he loves.

To that end I have appointed myself sustainability champion in the Blood Sciences Laboratory at the Royal Marsden Hospital (RMH). I have so far set up a green forum for them, and for all the labs across the RMH site, so that we can share ideas and sustainable initiatives. I gave a CPD talk on this topic to the whole of pathology and signed us up to the International Freezer Challenge. It was, and continues to be, a challenge to put myself out there and stand up for my values but it is worth it.

One of the initiatives we decided to implement was to find a green labs accreditation scheme we could sign up to. Our main analyser manufacturer, QuidelOrtho, agreed to fund us if we could find the right scheme, so I completed an options appraisal to select this. We chose the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM) green labs accreditation.

The first thing I did was download the EFLM green labs checklist PDF, which is free to access. It is 15 pages of tick boxes like this, so it is pretty extensive:

Checklist - Hazardous Chemicals Management

n.	ACTION	Always OR already completed	Sometimes OR In progress	No OR Rarely; (agree to be regular within 3 months)	No plans to start within the next year	Not applicable
GENERAL						
1	Has your lab received higher management support to introduce sustainable practices?	✓				

These were split into four categories: hazardous chemicals management, energy management, waste management and water management. Most of the questions were easy to answer, but there were a few that

I needed more detail on. I spent time emailing estates about the way our energy is generated and how much it costs, I asked our cleaning contractor about the cleaning chemicals they use and our transport coordinator about switching to electric vehicles. It turns out all the electricity used onsite at RMH is generated from our own CHP (combined heat and power), or from a renewable source during downtime, which was heartening. The CHP also supplies our heating system. The cleaning chemicals are being switched to eco-alternatives slowly and transport have a plan to replace all their vehicles with electric on a rolling basis.

We are a small laboratory, on three sites, and I answered the questions on the basis of all three labs together. We don't run any ultra-low temperature freezers, autoclaves or water-cooled equipment so I answered those as 'already completed' if a 'not applicable' option was not available. This was necessary, as otherwise we did not meet the required 75% success criteria for each section. I am aware that the checklist is being updated currently, so these questions will have an N/A option soon.

Once I was satisfied that I had answered all the questions on the PDF, I registered the laboratory on the EFLM website.

This took me to a form to fill in details on the size and workforce within the lab and a page for each section of the checklist. Each question has a drop-down box to answer, but this did not take long since I had already answered them all on the PDF. To move on to the next section a photo detailing one of the questions we answered as 'always or already completed' was uploaded. You could also add notes on any answers that were ticked in the right-hand columns e.g. no plans to start in the next year.

One of my photos was of the flask (above) which is now filled with 'bath beads' instead of water and is given out to wards who request a cryoglobulin screen. It is kept in the incubator when not in use. The beads keep the temperature at 37°C for longer than water, are less likely to become contaminated (and can be sterilised) and makes the flask easier and safer for the ward staff to use. I uploaded this photo for question 10 in water management:

10	Do you use a waterless water bath or a bead bath as an alternative to a traditional water bath to reduce water use, energy use and bacteria growth?

Once all four sections have been completed, you are immediately told whether you have achieved the 75% success criteria. If not, you have three months to improve before you can apply again. If you have achieved this, you are informed that you will receive an email outcome very soon. They check your notes and photos and then if successful you are asked to pay through a secure portal. We paid and then received confirmation of accreditation that day, along with our certificate.

This is valid for two years and is proudly displayed in the lab. All in all, the process took a few months due to all the communication required, but the actual form completion took an hour or so once the data was gathered. The EFLM say that random audits will be carried out in some laboratories. I'm now looking forward to trying to improve those areas that the checklist has made me think about in more detail – it's a great tool if you want to make a start on being greener.

If this has inspired you to get started, my top three tips are:

1) Look up the International Freezer Challenge (see the QR code below)

2) Turn off all non-essential computers at night/over the weekend.
3) Make Christmas decorations out of packaging like our talented BMS did last year for our entry to the Trust Christmas decoration competition.

FUTURE PERSPECTIVES

HEALTHCARE INEQUALITIES; RESPONSIBILITY TO EDUCATE OURSELVES

KATY HEANEY

POCT specialty lead, consultant clinical scientist, Berkshire & Surrey Pathology Services; Qpoint EQA Scheme director, Frimley Health NHS Foundation Trust

Have you looked at a blood tube and thought about the person it belongs to, not just their demographics, but their whole self? Are they waiting for a diagnosis or monitoring their disease? What impact is that health condition having on their lives? The weight of a health condition is carried differently by different people; for some with lightness, but for some a heaviness that weighs on their mind, dictates their life narrative and impacts their everyday experience of things many of us will take for granted.

In the last year I have taken particular interest in leaning in to how we can enable improvements in services for the under privileged and reducing healthcare inequalities. These may be terms we have come across in and outside of work, but really focusing time on what it means for healthcare has been eye opening.

Deprivation is measured using the national Index of Multiple Deprivation (IMD). There are 39 separate indicators across seven domains which are combined and weighted to produce the IMD.

Health deprivation and disability domain measures the risk of premature death and the impairment of quality of life through poor physical or mental health. The domain measures morbidity, disability, mood and anxiety

Seven domains of deprivation and the weighting they are given[1]

1. Income 22.5%
2. Employment 22.5%
3. Education, skills and training 13.5%
4. Health deprivation and disability 13.5%
5. Crime 9.3%
6. Barriers to housing and services 9.3%
7. Living environment 9.3%

disorders and premature mortality (years of life lost) but it does not measure aspects of behaviour or environment that may be predictive of future health deprivation. Shocking statistics direct my focus for new work and innovation: In England, women living in the most deprived areas have a life expectancy of 51.9 years, 18 years less than those living in the least deprived.[2]

Deprivation is more widespread than many realise with 61% of local authority districts containing at least one of the most deprived neighbourhoods in England. Middlesbrough, Liverpool, Knowsley, Kingston upon Hull and Manchester are the local authorities with the highest proportions of neighbourhoods among the most deprived in England. Seven of the 10 local authority districts with the highest levels of income deprivation among older people are in London. Middlesbrough and Blackpool rank as the most deprived districts regarding income deprivation among children.

The CORE20PLUS5 is a national NHS England approach to reducing healthcare inequalities at both national and system level. The Core 20 refers to the 20% of the population identified by the IMD. The "PLUS" refers to a local identification of populations, those in ethnic minority communities, people with learning disabilities and autistic people; people with multiple long-term health conditions; other groups that share protected characteristics as defined by the Equality Act 2010; groups experiencing social exclusion, known as inclusion health groups, coastal communities (where there may be small areas of high deprivation hidden amongst relative affluence). Inclusion health groups include: people experiencing homelessness, drug and alcohol dependence, vulnerable migrants, Gypsy, Roma and Traveller communities, sex workers, people in contact with the justice system, victims of modern slavery and other socially excluded groups. The "5" clinical areas of focus which require accelerated improvement which each sit with a national programme are:

1. Maternity
2. Severe mental Illness
3. Chronic respiratory disease
4. Early cancer diagnosis
5. Hypertension case finding and optimal management and lipid optimal management

If you are interested in more on this there are five e-learning modules released by NHS England covering the five areas which are a good piece of CPD and opportunity to understand more the interplay between health inequalities and these clinical areas.[3]

Health Inequalities – elearning for healthcare

What are health inequalities?

Health inequalities are unfair and avoidable differences in health across the population, and between different groups within society. The wider determinants of health refer to the conditions in which we are born, grow, live, work and age and how these can impact our health and wellbeing.

Wider determinants of health are often interlinked and someone who has a low wage is more likely to live in poor quality housing, have less access to healthy food and transport to attend healthcare settings. This means some groups and communities are more likely to experience poorer health than the general population.

The reasons for this are complex and may include:

- the availability of services in their local area
- service opening times
- access to transport
- access to childcare
- language (spoken and written)
- literacy
- poor experiences in the past
- misinformation
- fear

Earlier this year I was pleased to listen to a lecture from Nneoma Okeke, HCAI surveillance and epidemiology lead at Guy's and St Thomas's NHS Foundation Trust about the impact of health inequality on antimicrobial resistance. The interplay of all the IMD metrics leads to multiple drivers of AMR in these populations; gaps in knowledge, overcrowding, antibiotic mis-use. The highest rate of resistant bacteraemia in the UK is found in the Asian or Asian British population at 39.4%, compared to 20.1% in the white population.[4]

A patient story

Exposure to patients in pathology can be very limited for some. Many of our staff won't see patients face to face and the connection between a blood tube and the patient can be hard to make. At an Amazon learning event some years ago I was taught a technique in which the start of a new product or innovation did not begin with the product, but rather immersing oneself in the problem that needed a solution. This would lead then to the design of a product that truly fixed a solution, the kindle is an example of this – the problem was wanting any book immediately.

So my challenge to you reader; immerse yourself in the problem. Spend time educating yourself on health inequalities, visit the GP surgery in the most deprived area of your local population, listen to the staff there, the patients if you can.

Can pathology solve every problem? No, but we can contribute to change, to innovation and improvement that has started from understanding the issue and therefore is more likely to improve the situation.

If a physical visit isn't available for you; consider a scenario-based exercise. Write five sentences about a patient whose test would have come through your service. Now give them the demographics, the pressures and challenges of the most deprived by reading through the literature and really explore what the life of this person is like. What barriers have our services put in their way to leading a healthy life that we all deserve?

Author note: I am currently engaging in our health system with a broken wrist, so I acknowledge that some of this text is based heavily on the publicly available information, references are provided.

References

1. NHS England » What are healthcare inequalities?
2. Inequalities in life expectancy and healthy life expectancy | The Health Foundation
3. Health Inequalities – elearning for healthcare
4. English surveillance programme for antimicrobial utilisation and resistance (ESPAUR) report – GOV.UK

LABMED SCOTLAND 2025 IMMUNOLOGY MEETING

JUSTIN KILLICK

Clinical scientist, Immunology Service, Department of Blood Sciences, Ninewells Hospital and Medical School, Dundee

On 11 September 2025 immunology healthcare scientists and clinicians from across Scotland were brought together for the LabMed Scotland meeting for parallel biochemistry and immunology sessions. Hosted at the COSLA building in Edinburgh, the meeting promised a day of talks aimed at improving laboratory standardisation, highlighting testing issues and providing educational opportunities.

The morning session focused on Alpha-Gal syndrome, a life threatening and often misunderstood and under-diagnosed condition due to its unusual presentation. Alpha-Gal syndrome occurs when a person becomes sensitised to Alpha-Gal, a molecule present in the saliva of ticks. Following a tick bite, some individuals produce IgE antibodies to Alpha-Gal. These antibodies may cross-react with meat and dairy products, causing an allergic response which can progress to anaphylaxis. Talks by Fran Henriquez, Chris Servier-Guy and Alison Gall from NHS Glasgow and Greater Clyde (GGC), Tayside and Grampian, respectively, presented each health board's experience of identifying Alpha-Gal syndrome, interesting case studies and ways to try and improve pick-up rates. The talks also highlighted an increasing caseload across Scotland, contradicting the belief that this is a ‘rare’ allergy restricted to rural communities.

The next session was led by Liz Furrie from NHS Tayside, who presented a national audit on liver autoantibody testing across Scotland. The audit aim was to identify adherence to diagnostic guidelines, workload, turnaround times and testing pathways. The audit provided a really interesting overview of the current practices employed for the detection of liver autoantibodies across Scotland. It also highlighted a number of areas where labs can work towards improving and standardising testing.

The afternoon session was made up of a series of very interesting and educational case studies from across

Scotland. The first case was presented by Noushin Lawson, a trainee clinical scientist at NHS Tayside. Her case featured a patient with autoimmune-mediated Addison's disease. Interestingly this patient's autoantibodies were undetectable on the gold standard test for the condition – an indirect immunofluorescence (IIF) assay using primate adrenal tissue. This case study prompted a great deal of discussion amongst attendees as to whether other labs had observed similar patients and the reliability of the IIF method for antibody detection. The sustainability of using primate tissue was also discussed at length and whether a lab in Scotland would be interested in offering an alternative test to labs across the country.

The next two cases were presented by Charlene Porter-Morrison, a biomedical scientist and Rachel Steven, a clinical scientist, both from NHS Grampian. Charlene presented a rarely observed case of maternal transfer of anti-proteinase 3 (PR3) antibodies from mother to baby. The presence of these autoantibodies is usually associated with an autoimmune small vessel vasculitis. However, unlike the maternal transfer of many other autoantibodies (e.g. acetylcholine receptor or TSH receptor autoantibodies) the presence of these autoantibodies did not appear to cause disease in this patient.

Rachel presented a case of Common Variable Immune Deficiency (CVID), an immune deficiency causing impaired antibody generation, that was detected during routine autoantibody testing. During testing the patient's sample generated an error message on the analyser ('Low RU'), meaning that the sample produced an abnormally low response value. This error may signify that the patient has undetectable total IgG. Follow-up testing identified the patient had undetectable IgG, IgA and IgM and they eventually went on to be diagnosed with CVID. I found this to be a very interesting case and a good reminder to remain vigilant and curious about unusual error messages that may have clinical significance.

The final two cases were presented by Marina Frieta-Gilchrist, clinical immunologist and Nadia Shahid, clinical scientist, both from NHS GGC. Both cases

Immunology healthcare scientists focused on Liz Furrie's national audit on liver autoantibody testing

Rachael Steven presenting her case study 'Possible CVID detected by routine autoantibody testing'

were patients with atypical presentations of primary immunodeficiencies. Marina presented a case of a patient with a long history of recurrent infections whose sample produced unexpected results in an assay used to investigate the neutrophil oxidative burst and diagnose Chronic Granulomatous Disease (CGD) – the DHR assay. The assay produced a normal response when performed on a lithium heparin sample but gave abnormal results when performed on an EDTA sample. These results suggest that the patient may have a defect in part of the pathway that controls the neutrophil burst, though genetic testing has not yet identified any defect.

Nadia presented the final case of the day, a patient identified as having rare, delayed onset presentation of Adenosine Deaminase deficiency (ADA). The delayed onset meant that the patient presentation did not conform to what is typically seen in ADA deficiency, where patients generally present with Severe Combined Immune Deficiency (SCID). I found this really educational as it highlighted a rare presentation of an already very rare immune deficiency.

The Immunology sessions were brought to a close and the day finished with the joint plenary lecture, 'Incretins, obesity and the heart: what we know so far' presented by Naveed Sattar.

I would like to thank LabMed and the event organisers for a really interesting meeting. It was a great opportunity to network with immunology colleagues from across Scotland and I learnt a lot from the day.

NORTH WEST REGIONAL AUDIT AWARD

by
HANNAH FEARON
NW regional audit lead

On Wednesday 9 July, the North West Region hosted the inaugural LabMed North West Regional Audit Award. Over one hundred online delegates were treated to a varied programme which covered audit activity around compliance with myeloma screening guidance, diagnostic performance of faecal haemoglobin tests, review of cortisol telephoning timescales and clinical action following small band detection on serum protein electrophoresis. Congratulations to Alan Cheung, an STP trainee in clinical biochemistry at Stockport NHS FT for his winning presentation on 'Diagnostic performance of FOB Gold and HM-JACKarc in symptomatic primary care patients'.

Delegates were involved in lively discussion and debate around all of these presentations and we are hoping to capture this enthusiasm in a newly reformed NW regional audit committee to drive audit activity going forward. If you are located in the North West region and would like to be involved with this please email hannah.fearon@liverpoolft.nhs.uk

Steven McCann with Alan Cheung and his Award

EQALM SYMPOSIUM 2025, LEIDEN, NETHERLANDS

Everyone will be familiar with EQA (External Quality Assessment) and how this is delivered in the UK. What you may not be aware of is how UK laboratory quality feeds into European initiatives and vice versa.

RACHEL MARRINGTON

Consultant clinical scientist & deputy director, Birmingham Quality (UK NEQAS), University Hospitals Birmingham NHS Foundation Trust

EQALM, an umbrella organisation External Quality Assurance Providers in Laboratory Medicine, held their annual symposium in October 2025, in Leiden, Netherlands. The theme in 2025 was 'EQA for the end-user'. It was therefore appropriate that one of the plenary speakers was our own president, Ian Godber. Ian drew on his experiences as consultant clinical scientist at NHS Greater Glasgow and Clyde and as president of the Association for Laboratory Medicine to speak about the role of EQA in quality assurance, what is needed and what is expected from EQA providers. Clinical laboratories are continually facing challenges (financial, recruitment, changes in services etc.) which puts increasing pressure on service provision. Laboratories need confidence in what their EQA shows so that the data can be used as part of the service risk and quality management process and laboratories therefore rely on good quality EQA specimens. Better utilisation of reagent/calibrator lot information was highlighted to be a very useful tool which could be further developed. Laboratories expect EQA to be foolproof, but it is important that we all work together to ensure best quality service is provided for our patients. Ian pointed out that professional bodies need to help with defining performance criteria; however, education of our clinicians is key so that the variation between manufacturers is better understood.

EQALM has over 45 members from 26 countries. Members interact with each other through specific Working/Task & Finish groups, but also work with cooperations such as EFLM (European Federation of Clinical Chemistry and Laboratory Medicine), IFCC (International Federation of Clinical Chemistry and

Laboratory Medicine), JCTLM (The Joint Committee for Traceability in Laboratory Medicine) and ICHCLR (International Consortium for Harmonization in Laboratory Medicine) etc. Our annual symposium provides an opportunity for the working groups to meet and discuss existing and new projects.

NOPAM, a program for internal and external quality assessment based on real time patient results, was presented by Noklus, the Norwegian non-profit EQA provider. Laboratories participating in the program regularly send a standardised report containing the patient median and percentage of patient results above and below the laboratory's own reference limits. The program can reveal important differences between different instrument types and methods, as well as monitor the progress of harmonisation and standardisation efforts. Participants can compare their own results with other comparable groups and compare different method groups. It is hoped that we will be able to make this available within the UK some time very soon. This has real potential to be used alongside other quality tools to earlier identify issues and provide the evidence of clinical impact.

The penultimate day opened with an update on the COMET Multiparameter Commutability Study – manufacturing of commutable calibrators and quality control materials for standardisation. One of the objectives is to help the IVD industry meet the requirements of the IVDR on the establishment and verification of metrological traceability. The UK is heavily involved with this project so it was great to see the progress that is being made. Other partners include industry, medical organisations, health authorities (such as the NHS), hospitals, calibration laboratories and other EQA providers (Figure 1).

A successful feature of the EQALM symposia are breakout sessions where all delegates can share experiences on key topics. This year we looked at who are the end-users and how to promote EQA as a key component of a quality improvement system. There is variation in laboratory practice across Europe which also translates into variation in how EQA is undertaken. The UK is very fortunate to have large volumes of EQA data and we do identify issues early on so that they can be immediately acted upon.

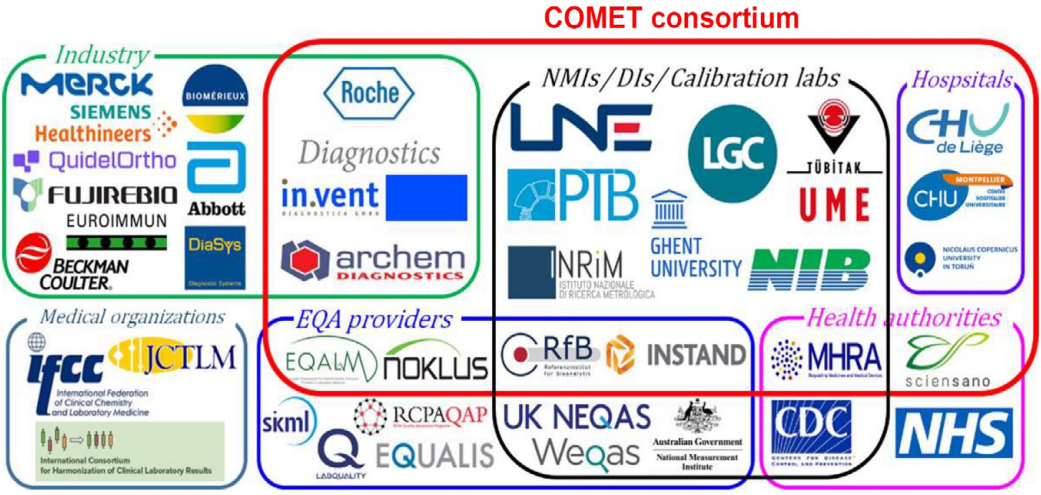


Figure 1: The COMET Multiparameter Commutability Study – Partners

Ian Godber presenting The role of EQA in quality assurance, what is needed and expected from EQA providers

The consortium concluded with a session titled 'Collaboration together for better patient outcomes'. After a discussion about Quality indicators for the pre and post analytical phase, Christa Cobbaert gave an excellent presentation on Laboratory medicine in this regulatory era: from evolution to revolution. Professor Cobbaert reminded us that analytical performance needs to continue to challenge whether tests are clinically suitable. Clinicians assume that the 'number' is always 'right' if there is 'QC' and 'accreditation', but science and technology evolve, there are regulatory changes. We need to focus on the consequences of what we are doing. We must not sit in silos.

For more information see https://eqalm.org/ and follow EQALM on LinkedIn.

THE DIGGLE MICROBIOLOGY CHALLENGE

These questions, set by Mathew Diggle, are designed with trainees in mind and will help with preparation for the microbiology part 1 FRCPath exam.

Question 50 from the October issue

A 42-year-old returning traveller presents in September 2025 with fever, myalgia and cough. He had visited Réunion Island two weeks ago, where there has been a surge in arboviral infections. SARS-CoV-2 PCR is negative, blood cultures are sterile and dengue NS1 antigen is negative. RT-PCR of serum confirms Chikungunya virus RNA.

Which of the following statements is the most accurate regarding Chikungunya virus infection?

A) Person-to-person respiratory transmission is well established in community outbreaks.

B) Chronic arthralgia may persist for months after acute infection.

C) Safe and effective licensed vaccines are widely available in the UK travel clinic setting.

D) Infection is typically associated with haemorrhagic shock in severe cases.

E) The vector responsible is primarily *Culex spp.* mosquitoes.

Answer

True

B) Chronic arthralgia may persist for months after acute infection.

False

A) Transmission is mosquito-borne (mainly *Aedes aegypti* and *Aedes albopictus*), not respiratory. C) A vaccine (Ixchiq) has been recently FDA-approved in the US (2023) but is not broadly available in the UK travel setting as of late 2025. D) Severe haemorrhagic disease is typical of dengue, not chikungunya; chikungunya causes high fever, rash and debilitating joint pain. E) Culex mosquitoes do not transmit chikungunya; the primary vectors are *Aedes spp*.

Question 51

During the winter holiday season, hospital labs notice a spike in respiratory infections among children following group gatherings (such as carol singing and holiday parties). Which of the following statements about the likely viral pathogens and their laboratory characteristics is most accurate?

A) Influenza A virus is well known for dramatic changes in its antigenic structure ("antigenic shift") leading to a potential significant increase in cases.

B) Respiratory syncytial virus (RSV) is best diagnosed using traditional bacterial culture methods.

C) Coxsackie B virus is a common cause of bronchiolitis in winter outbreaks.

D) Ethylene oxide is ineffective against enveloped viruses on laboratory surfaces.

The answer to this question will appear in the next issue of LabMed News.

DEACON'S CHALLENGE REVISITED

NO 40. ANSWER

If the pH of urine is 4.5 and of blood 7.40, what is the gradient of hydrogen ion concentrations across the tubular cell walls?

$$pH = -\log_{10}[H^+]$$

Swapping these terms to opposite sides of the equation gives:

$$\log_{10}[H^+] = -pH$$

Taking antilogs gives an expression for determining hydrogen ion concentration (in mol/L) from pH:

$$[H^+] = \text{antilog}_{10}(-pH)$$

For urine substitute pH = 4.5:

$$[H^+] = \text{antilog}_{10}(-4.5) = 3.16 \times 10^{-5}\ \text{mol/L} = 31600\ \text{nmol/L}$$

(multiplication by 10^9 converts from mol/L to the more familiar nmol/L
i.e. $3.16 \times 10^{-5} \times 10^9 = 3.16 \times 10^{-5+9} = 3.16 \times 10^4 = 31{,}600$)

For blood substitute pH = 7.40:

$$[H^+] = \text{antilog}_{10}(-7.40) = 3.98 \times 10^{-8}\ \text{mol/L} = 40\ \text{nmol/L}$$

$$\text{Gradient} = \frac{[H^+]\text{ in urine}}{[H^+]\text{ in blood}} = \frac{31600}{40} = \mathbf{790:1}$$

Question 41

A woman had a beta hCG concentration measured at 265 IU/L and 11 days later, following some abdominal pain, it was 820 IU/L.

Assuming hCG rises exponentially in early pregnancy, what has been the doubling time over this period? What is the significance of the result you obtain?

The answer to this question will appear in the next issue of LabMed News.

SUSSEX CHALLENGES

Points of interest in this set of data will be addressed in this and the next Sussex Challenge.

Challenge 3

A male aged 40 years was found unconscious – presumed overdose. Serum creatinine four months earlier was 85 µmol/L.

Analyte	Admission	Units	Ref Interval
Serum sodium	148	mmol/L	136 - 145
Serum potassium	5.4	mmol/L	3.2 - 5.1
Serum chloride	111	mmol/L	98 - 107
Serum bicarbonate	7.0	mmol/L	22 - 29
Serum urea	4.0	mmol/L	1.7 - 8.3
Serum creatinine	136	umol/L	59 - 104
AKI Alert	Alert 1		
Serum C-reactive protein	3.0	mg/L	<5
Plasma glucose	5.2	mmol/L	
Serum albumin	51	g/L	35 - 52
Serum adjusted calcium	1.80	mmol/L	2.20 - 2.62
Serum phosphate	1.67	mmol/L	0.81 - 1.45
Serum total bilirubin	6	umol/L	0 - 21
Serum alkaline phosphatase	84	U/L	40 - 129
Serum ALT	21	U/L	0 - 41
Serum salicylate	<10	mg/L	
Serum paracetamol	<10	mg/L	
Plasma ethanol	N/D*		
Plasma lactate	8.9	mmol/L	<2.0
Serum osmolality	345	mmol/kg	280 - 295
POCT Blood lactate	19	mmol/L	<2.0
POCT Blood pH	6.99		7.35 - 7.42
POCT Blood pO_2	4.69	kPa	12.0 - 15.0
POCT Blood pCO_2	3.52	kPa	4.5 - 6.1
POCT Blood std bicarbonate	7.5	mmol/L	22 - 26
POCT Blood base excess	-24.2	mmol/L	±2

1. **What is his calculated osmolality, how different is it from that measured and why is it different from the measured result?**
2. **What causes of a raised osmolar gap do you recognise?**
3. **Do you think the osmolar gap is always elevated in people with ethylene glycol poisoning?**
4. **Do you think there is any clinical benefit in measuring the difference between the POCT blood lactate measurement and that from the laboratory?**
5. **What do you think is the cause of his hypocalcaemia?**

Commentary

1. What is his calculated osmolality, how different is it from that measured and why is it different from the measured result?

Calculated osmolality = (2 x [Na^+]) + [glucose] + [urea]
Osmolal gap = Osmolality (measured) – Osmolality. Reference interval = < 10.
(Strictly speaking the calculation is osmolarity – viz mmol/L rather than mmol/kg)

Please note: This calculation uses only sodium concentration rather than sodium plus potassium to compensate for sodium and potassium not being totally ionised in serum. There are a variety of other formulae in use but no real recommendation as to which is best. It is probably wise to be consistent in the use of a local preference.

His calculated osmolality is (2x148) + 5.2 + 4.0 = 305.
His measured osmolality = 345. His osmolal gap = 40.

The difference is due to the presence of molecules not normally found in serum as the two most common metabolites causing a raised osmolality are urea and glucose – both of which are included in the osmolality calculation.

2. What causes of a raised osmolar gap do you recognise?

Causes of high osmolar gap include:

- Simple-ols
  - o Ethanol
  - o Methanol
- Glyc-ols
  - o Ethylene glycol
  - o Propylene glycol
- Sugar-ols
  - o Mannitol
  - o Sorbitol

3. Do you think the osmolar gap is always elevated in people with ethylene glycol poisoning?

While ethylene glycol is a cause of a raised anion gap it does not mean that every case of ethylene glycol poisoning had an elevated osmolar gap as a toxic concentration of 100 mg/L is only 1.6 mmol/L. As the effect of toxic alcohols progresses the serum osmolality decreases and the acidosis increases – a good reason for not relying too much on serum osmolality in the diagnosis of ethylene glycol poisoning.

See: Ahmed M *et al.* 2020. Ethylene Glycol Poisoning with a Near-Normal Osmolal Gap: A Diagnostic Challenge. *Cureus* 12(12): e11937. DOI 10.7759/cureus.11937; and Kraut J A, Mullins M E. 2018. Toxic Alcohols *N Engl J Med*; 378: 270-80. DOI: 10.1056/NEJMra1615295

4. Do you think there is any clinical benefit in measuring the difference between the POCT blood lactate measurement and that from the laboratory?

Dimeski *et al* (suggested guide to using lactate gap as a surrogate marker in the diagnosis of ethylene glycol overdose. *Annals of Clinical Biochemistry* 2025; 62(2): 140-142) suggest that in the local absence of an assay specifically for ethylene glycol, the difference between POCT and laboratory lactate may be used as a proxy for the ethylene glycol concentration. This, of course, depends on the methods for both POCT and laboratory lactate assays. A difference in lactate concentration between POCT and laboratory assays of >8 mmol/L (lactate gap) is consistent with ethylene glycol poisoning – the authors suggest that local laboratories validate the concept of a lactate gap. The lactate gap in this person was 10 mmol/L.

Further Reading: Kamboj M *et al.* 2019. High Lactate in Ethylene Glycol Poisoning. Biomed Hub 2019;4:499967

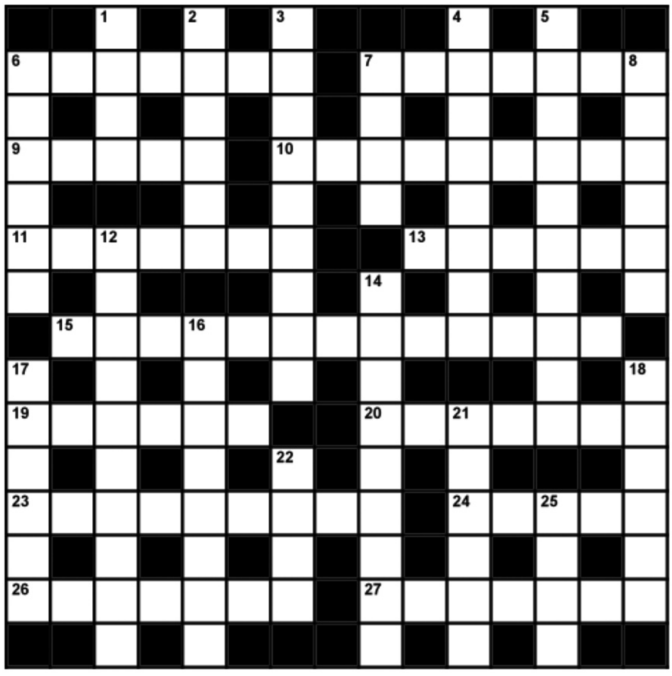
THE CROSSWORD BY RUGOSA

Across

6 They display wide ranges of exceptional carpets (7)
7 A neatly altered component we measure (7)
9 More complex traumas admitted (5)
10 Doctor is caustic and intellectually dishonest (9)
11 Abnormal actomyosin fails to maintain any kind of pressure (7)
13 Indicated poor design (6)
15 Retraces silly unreliable task in chemical purification (13)
19 Female organ specialist operated, lost case (6)
20 Unbeatable opponent seems in disarray (7)
23 Dry? Order our shandy! (9)
24 Plot of initial growth rate against plant hormone (5)
26 Drunken colleagues want ale as a source of energy (7)
27 Rather superior sort of duct (7)

Down

1 Qualifying competition in theatre (4)
2 Sound said to be unmixed (6)
3 Metal container for minute mechanism used to monitor patient? (5,4)
4 Having a high relative frequency (8)
5 Sits in cosy curious 4 state (10)
6 Holy man brought up popular tradition about alcohol (6)
7 Constituent of material used to seal sole to boot (4)
8 Digitise data posted with poem (6)
12 Claylike 14 mineral worked each summer (10)
14 Metal puzzle amusing men without number (9)
16 Preordain ingredients lacking a bearing on condensation product (8)
17 Got up quickly from second accident (6)
18 Model pharmacists reject script for a common medical condition (6)
21 Some back horses often; gambling exerts a great attraction (6)
22 Spot spy (4)
25 Cachectic patient admits discomfort (4)



SOLUTION FOR OCTOBER'S CROSSWORD

SUDOKU ... THIS MONTH'S PUZZLE

							M	T
	T	I	R				H	S
	E		S					
	Y	S	H					
					E	C	S	
					M		Y	
M	C				T	I	E	
R	I							

SOLUTION FOR OCTOBER

T	C	I	E	S	R	M	Y	H
E	M	H	Y	T	I	C	S	R
C	S	Y	H	C	M	E	T	I
C	H	E	M	I	S	T	R	Y
I	T	M	R	Y	E	H	C	S
Y	R	S	T	H	C	I	E	M
S	Y	C	I	M	T	R	H	E
M	E	T	S	R	H	Y	I	C
H	I	R	C	E	Y	S	M	T

Become a member

"WE CELEBRATE THE POWER OF SCIENCE AND MEDICINE IN THE PURSUIT OF HUMAN HEALTH AND WELLBEING"

- Access learning and resources
- Meet great colleagues and develop your career
- Join our events, win prizes and get funding support
- Enjoy trade union benefits and help shape the future of laboratory medicine

labmed.org.uk

Association for Laboratory Medicine

LabMedNews

Lead editor
Gina Frederick
Pathology laboratory
Royal Derby Hospital
Email: gina.frederick1@nhs.net

Associate editors
Sophie Barnes
Department of clinical biochemistry
Charing Cross Hospital
Email: sophiebarnes@nhs.net

Nicola Merrett
Department of laboratory medicine
University Hospital Southampton
NHS Foundation Trust
Email: nicola.merrett@uhs.nhs.uk

Christopher Pitt
Department of biochemistry
NHS Ayrshire & Arran
Email: christopher.pitt@aapct.scot.nhs.uk

Jenny Hamilton
Department of clinical chemistry
Southern Health & Social Care Trust
Email: jenny.hamilton@southerntrust.hscni.net

Elizabeth Ralph
Immunology, Camelia Botnar laboratories
Great Ormond Street Hospital
Email: e.ralph@nhs.net

Stephen Kidd
Department of microbiology
Hampshire Hospitals NHS Foundation Trust
Email: stephen.kidd@hhft.nhs.uk

Ijeoma Okoliegbe
Department of medical microbiology
and virology
Aberdeen Royal Infirmary
Email: ijeoma.okoliegbe@nhs.scot

Philip Wood
(retired)

Situations Vacant advertising
Please contact the Office:
Tel: 0207-403-8001
Email: admin@labmed.org.uk

Advertising
Jason Brown, advertising manager
Email: jason@labmed.org.uk

Design and layout
Nikki Williams

Headquarters
Association for Laboratory Medicine
130-132 Tooley Street
London SE1 2TU
Email: admin@labmed.org.uk

President
Ian Godber
Email: president@labmed.org.uk

CEO
Victoria Logan
Email: victoria@labmed.org.uk

Home page
http://www.labmed.org.uk

LinkedIn
https://www.linkedin.com/company/association-for-laboratory-medicine/

Instagram: @labmed_uk