

ACBNews

The Association for Clinical Biochemistry & Laboratory Medicine | Issue 674 | December 2021



In this issue

**UKMedLab22 –
Save the date**

**Reindeer risk
assessment**

**ACB mentoring
launch**

**Whole Genome
Sequencing
course**

**Standardising
tube colours**

**Call for SCPC
Ordinary
Members**

Winter Quiz

Meeting reports:

- Environment Network
- National Audit Group

Rudolph gets his IPC risk assessment!





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ACB News

The bi-monthly magazine for clinical science

Issue 674 • December 2021

Message from the President	page 4
CEO Update	page 6
General News	page 8
Deacon's Challenge Revisited	page 20
Microbiology News	page 22
Current Topics	page 29
Meeting Reports	page 31
Obituary	page 34
BIVDA News	page 35
ACB News Crossword	page 37



The Association for
**Clinical Biochemistry &
Laboratory Medicine**

Better Science, Better Testing, Better Care

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Front cover: Elaine Cloutman-Green tests Rudolph and Santa for Covid-19!

President's Message – December 2021

As my thermometer dipped below zero in Aberdeenshire this week and the first snow was forecast, it was clear that Winter was upon us. Functionally, of course, many of us have been working with Winter pressures for more than a year and this looks likely to become the norm all year round. Pandemic recovery and the challenges this brings to healthcare delivery mean that laboratory services have an even more important role than ever. The ACB's "Build back with Labs" initiative will soon have a web presence from which we can share resources, ideas, guidance and experiences, and members will be asked to contribute to this in the near future – look out for this launch early in the New Year.

Demand Optimisation (DO) is even more important to ensure appropriate testing keeps patient pathways working as efficiently as possible. However, the threat of supply chain issues for blood tubes, reagents and other consumables will be with us for some time and so we also need contingencies to mitigate when needed for this eventuality. The ACB will be forming a collaborative approach to DO, along with RCPATH, IBMS, 4-country NHS bodies and other stakeholders to tackle both "day job" DO challenges and crisis level mitigation when required, when supply chain issues impact our services – hopefully kicking off in January 2022.

We all recognise the importance of Lab Tests Online (LTOL) and recent threats to the future existence of the UK version have largely been mitigated following collaborative efforts by the ACB and the LTOL Board, along with support from other stakeholders. It will mean a new name, web location and funding



arrangement going forwards, but importantly the content can be retained so avoiding the need to start completely from scratch. Increased control and ownership will also allow potential expansion of this much-valued service to provide additional content and functionality for both patients and healthcare professionals.

Spring 2022 will see the ACB piloting its new mentoring scheme, allowing more experienced members of the Association to engage with more senior trainees/members with personal development guidance, discussion and knowledge sharing around the more difficult to access topics within our disciplines.

Finally, hopefully all members will be able to take some well-earned rest over the upcoming holiday season and I wish you all well for 2022. Now, where did I put that snow shovel? ■

Bernie Croal, ACB President



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Message from the CEO

It's been another busy couple of months for us all at Tooley Street. The office is now fully open and members are slowly beginning to return to the office to use our new meeting space and remote meeting facilities.

There are some staff changes afoot with Christina Petzny leaving us on 1st December to take up a new role in a healthcare start-up. I am sure you will join me in thanking Christina for her hard work, support and unending cheerful demeanour over the past two years – particularly as she coped with home-schooling two young children throughout the pandemic. We wish her well. We are now recruiting for Christina's replacement.

In January, we will be welcoming Nuno Menezes who will be joining the ACB as Events & Communications Manager and will lead on the development of our online content, meetings and events and marketing and branding.

Mike Lester will be broadening his role to deliver on some key new education projects next year – more news on that in the next issue.

We've had a big focus on Lab Tests Online for the past couple of months and the article on **page 14** will update you on our plans for the coming year following the sale of the website by AACC to a commercial entity.



You can also read about the launch of a new mentoring programme on **page 15**.

Finally, I wanted to highlight that we will be launching the process to find the next President Elect early in the New Year. The Nominations Committee is designing an open and inclusive process which started with amending the Articles to remove the requirement to have served on Council. Look out for the recruitment materials in the New Year.

With very best wishes for the holiday season and a very Happy New Year. ■

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Scientific and Clinical Practice Committee: Ordinary Members needed

Alexandra Yates, ACB Director of Scientific Affairs

The Scientific and Clinical Practice Committee responds on behalf of the ACB on scientific matters relevant to Laboratory Medicine.

The Committee is currently made up of medical and scientific ACB Members from Immunology, Microbiology and Clinical Biochemistry.

We are currently recruiting ACB Members from all disciplines to join the Committee as Ordinary Members and are happy to consider applications from candidates at any stage in their career. We meet four times a year, and going forward these will likely be hybrid meetings with attendance via MS Teams, or in person, at the ACB headquarters in London.

If you are interested in a position, please send a short CV outlining your career to date, relevant achievements and areas of specialist interest to:

director.scientificaffairs@acb.org.uk If required, the Committee will vote based on the application content, which will be anonymised before circulation. For more information on the role of the Scientific and Clinical Practice Committee please [click here](#) or feel free to get in touch via email.

Closing date for applications: 20th December 2021. ■




Sudoku

This month's puzzle

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

Solution for October

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

A microscopic view of red blood cells, showing several large, spherical cells with a darker red center and a lighter red outer ring, surrounded by a dense field of smaller, granular particles. The background is a mix of white and red, creating a textured, almost abstract appearance.

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ACB Preanalytics Special Interest Group – Survey on transgender patient data and LIMS (UK and RoI)

Sophie Hepburn, Seán Costelloe, Devon Buchanan and the ACB Preanalytics Special Interest Group

The aim of this survey is to identify how laboratories in the UK and the Republic of Ireland currently handle laboratory data for transgender patients.

Your help with this important survey would be very much appreciated. In total, there are five sections and 33 questions. The survey can be completed in 10 minutes and can be accessed by [clicking here](#).

Some knowledge about your daily

workload, LIMS manufacturer, and whether you have gender-specific tests and/or reference intervals would be useful to be able to respond to all of the questions.

If you have any queries please do not hesitate to contact Sophie Hepburn: sophie.hepburn1@nhs.net

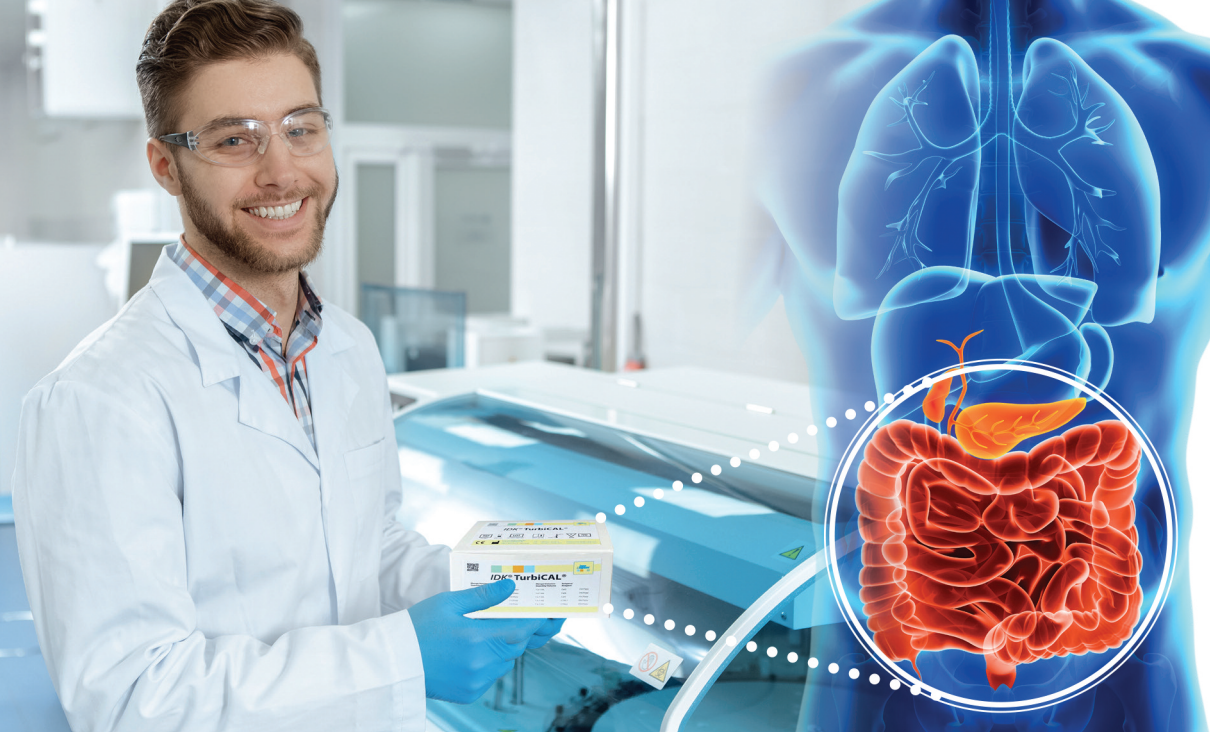
The above survey will close on the 4th December 2021. ■

Merry Christmas & Happy New Year from the *ACB News* Team

Thank you to everyone who has helped on *ACB News*, from those directly working on each issue, the Associate Editors, our publisher – Sue Ojakowa of PRC Associates – and to everyone in all areas of production. The Associate Editors, Christopher Pitt, Nicola Merrett, Sophie Barnes, Wendy Armstrong, Becky Batchelor, Jenny Hamilton, Katy Hedgethorpe, Elaine Cloutman-Green (Microbiology) and Rachel Wheeler (Immunology); together with Jane Pritchard, Dragana Landup-Horgan, Mike Lester and the ACB Office staff team; and Nikki Williams for the design and layout of each edition; all of whom have helped to ensure that we produce *ACB News* on time every two months.

Merry Christmas! Here's to a Happy New Year!

Gina Frederick



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Changes to Section 33 of the Agenda for Change (AfC) handbook

Emma Lewis, FCS Chair

The AfC handbook covers all the terms and conditions that support NHS staff who are paid under the AfC scheme. This covers the majority of staff who work within the NHS, apart from doctors, dentists and the very senior managers. Periodically, parts of the handbook are updated to reflect changes to staff conditions of employment.

Section 33 of the Handbook is entitled 'Balancing work and personal life' and this has recently been updated with changes that came into force on the 13th September for England. The main changes are:

- ◆ The right to request flexible working from day one of employment.
- ◆ A revised structure which is aimed at supporting managers to be more explorative in reaching mutually workable outcomes.
- ◆ A re-emphasis on the importance of monitoring flexible working requests at an organisational level, to ensure greater consistency of access to flexible working.

Previously, staff have had to wait to request flexible working and could only apply once a year. The new guidance places more emphasis on how employers can offer and support those who wish to work flexibly, and sets out a procedure as to how this is handled with the ability to appeal a decision. It also states that all requests should be recorded and decisions monitored to ensure equity of access across the organisation.

For further information [click here](#). ■

Like the Reviews in the *Annals*?

Do you like reading the reviews in the *Annals*? Do you want a say in what is included? Would you like to get an introduction to the publication process and earn CPD college points for reviewing articles?

The Clinical Sciences Reviews Committee (CSRC) is currently seeking new membership from enthusiastic ACB Members. Previous publication experience is desirable but not essential. We would also welcome interest from members specialising in Haematology, Medical Microbiology/Virology and Immunology.

The CSRC commissions reviews from leading national and international experts from all disciplines of Laboratory Medicine. The Committee works with the authors to define the scope and style of the article, peer review drafts and format the manuscript ready for submission.

This friendly Committee meets three times a year either at Tooley Street, or online, as a hybrid approach to allow those to join who cannot easily get to London. If you are interested in applying, or require further information, please email the CSRC Chair, Dr David Gaze (d.gaze@westminster.ac.uk) or CSRC Secretary Dr Katharine Bates (katharine.bates@nhs.net). ■

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Lab Tests Online – Innovation Workshop

In January this year the Lab Tests Online website was sold by the AACC to a commercial organisation in the United States. The ACB and the Lab Tests Online UK team have therefore taken the opportunity to launch an innovation process to develop an independent UK site that continues to deliver on the core purpose to provide independent, trusted information on laboratory tests for patients.

To kick off the process we hosted an Innovation Workshop in September involving key stakeholders from the ACB, the Royal College of Pathologists, the IBMS and the NHS.

The workshop was a great success and has led to the development of a vision to launch an enhanced and rebranded site by the end of 2022.

More updates will follow as plans progress. ■



(left to right): Stuart Jones, Lab Tests Online Board; David Wells, CEO IBMS; Dragana Landup-Horgan, Publications Administrator, ACB; Danielle Freedman, Chair, Lab Tests Online Board; Sally Stock, Lab Tests Online Board; Jane Pritchard, CEO, ACB; Kam Chatha, Director of Publications, ACB; Mike Osborne, President, Royal College of Pathologists; and Bernie Croal, President, ACB

ACB to launch mentoring programme

Alison Whitelegg, Education Training & Workforce Committee, Lead for ACB Mentoring Programme

In response to member requests I am delighted to announce that ACB will be piloting a mentoring scheme next year.

A member survey conducted in October helped us identify the mentoring themes as well as gauge interest from potential mentors and mentees.

Developed by a cross-committee group, the scheme will be offered online from March 2022 for an initial six-month pilot with a view to embedding the scheme as a permanent addition to ACB membership.

Key themes will be professional development, personal skills and competencies, and leadership and management. We expect each mentor-mentee interaction on a specific topic to last approximately eight weeks, comprised of four hours throughout this period (one hour per fortnight).

We have identified a great platform to help facilitate our mentorships, with an array of information and advice available to help you gain the most from the experience, whether you are a mentor or mentee.

If you have not already done so and are interested in signing up as a mentor or would like more information, please let Mike Lester, Membership Manager, know at mike@acb.org.uk

If you are interested in finding a mentor look out for more information in the coming weeks. ■



Condolences

It is with regret that we must inform you of the sad news of the following ACB Members:

ACB Fellow Dr Peter Woodford passed away on 12th October 2021. Dr Woodford, who was last based in London, joined the ACB in 1977 and was awarded Fellow of the ACB in 2004. During this time Peter held a position on the Scientific Committee (1985).

Peter Lewis passed away recently aged 76 after a short illness. Peter was one of the first students to complete the Birmingham MSc Clinical Chemistry training course. He studied for his PhD at Birmingham Children's Hospital and worked at several Birmingham hospitals throughout his career. He was an active member of the ACB West Midlands Region, particularly in the organisation of Focus meetings held in Birmingham. Our sincere condolences go to Peter's wife, Adrienne, his children and his grandchildren. ■

WINTER QUIZ

by Rachel Wheeler

My thanks to my colleagues Sarah Linstead, Rona Alkaadi, Lucy Anna Staples, Lisa Garrison, Maisa Freire, Yasmin Reyah, Mickey Koh, Matt Klammer and Cassie Pope at South West London Pathology, St George's Hospital, London for helping me put a festive spin on this!

- Which condition is known as Christmas disease?
(a) Haemochromatosis (b) Gout (c) Haemophilia B (d) Hyperthyroidism
- When chemists do ELF testing, which organ is this related to?
(a) Heart (b) Kidney (c) Liver (d) Small intestine
- Which autoimmune antibody pattern most resembles a starry sky on indirect immunofluorescence?
(a) Ro antibodies (b) Centromere antibodies (c) Titin antibodies (d) Yo antibodies
- Which of these pathogens could be a cause of food poisoning in an under-cooked turkey?
(a) *Campylobacter jejuni* (b) *Acinetobacter baumannii* (c) *Pseudomonas aeruginosa* (d) *Klebsiella oxytoca*
- What is the name of the histological feature said to resemble owls eyes?
(a) Foamy macrophages (b) Flame cells (c) Reed Sternberg cells (d) Mott cells
- If Santa was a B cell, which 'little helper' would be helping him make antibodies?
(a) NK cells (b) Macrophages (c) Plasma cells (d) T cells
- Which of these blood film features most resembles a spiky star?
(a) Sick cell (b) Eosinophil (c) Foamy macrophage (d) Acanthocyte
- Which of these festive foods is not advisable for people with coeliac disease?
(a) Brussel sprouts (b) Mince pies (c) Roast parsnips (d) Chestnuts
- Which of these conditions may present more in colder months?
(a) Malaria (b) Graves disease (c) Cryoglobulinaemia (d) Burkitts lymphoma
- Which winter vegetable would affect the INR result of someone on warfarin?
(a) Brussel sprouts (b) Parsnips (c) Turnip (d) Jerusalem artichoke
- Specific IgE testing for possible allergy is not available for which of these festive allergens?
(a) Cranberry (b) Turkey (c) Brussel Sprouts (d) Cloves
- Which of these conditions do you think Father Christmas is most likely to have?
(a) Polycythaemia (b) Gout (c) Lyme disease (d) Coeliac disease

Answers on page 17

SAVE THE DATE!

UKMedLab22

London • 7-9 November

UKMedLab22, the annual national conference of The Association for Clinical Biochemistry and Laboratory Medicine, will take place at the Royal College of Pathologists from 7th-9th November 2022. Full details and delegate booking facilities will be available on the [ACB Events Calendar](#) in due course. ■

IBMS Congress 14th-17th March 2022

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Answers to the Winter Quiz on page 16 ■ risk of (a) due to high altitude, or (c) due to [reɪn]deer].

LAB TESTS ONLINE^{UK}

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Laboratory Medicine

With support from

 The Royal College of Pathologists
Pathology: the science behind the cure



Lab Tests Online-UK is a non-commercial website written by practising laboratory medics and scientists with lay editorial review of content to ensure its suitability. The aim of the website is to help patients and the public, including healthcare professionals, understand the many clinical laboratory tests that are used in diagnosis, monitoring and treatment of disease.

LTO-UK fact of the month

We worked with our partners in the RCPath during National Pathology Week to have some of our leaflets included in publicity and mailouts for event organisers.

Meet the Lab Tests Online-UK Board

Deputy Managing Editor, Kate Shipman



Kate is a Consultant Chemical Pathologist at University Hospitals Sussex West (Chichester and Worthing) working closely with the rest of the new Trust (Brighton and Haywards Heath) and Pathology Region (Eastbourne and

Hastings). Her interests include improving the use of diagnostics and access to lipid diagnostics and treatments. Kate became Deputy Managing Editor in 2020, having helped edit content for several years previously. Other editorial responsibilities include being an Associate Editor for the *Annals of Clinical Biochemistry*; an Editor for the ninth edition of the *Clinical Chemistry* textbook by Marshall *et al*; and part of the editorial team for Gifford Batstone's educational case series (to be included in the new edition of the Tietz textbook). Having the great pleasure and privilege of getting to work closely with patients, Kate has always been of the opinion

that almost everyone is happier if they understand what is going on. Always enjoying telling anyone who will listen about Biochemistry, LTO-UK is a perfect outlet providing the public (and healthcare professionals) with accurate and succinct information on tests. Outside of work Kate is still working on getting her Affenpinscher to sit on command. He is proving resistant to training!

What's new on LTO?

In October we attended the RCGP conference in Liverpool, our first face-to-face event since the start of the pandemic. We spoke to many GPs from all over the UK, and connected with a lot of patient advocate charities, hoping to work with them to help their members understand their test results, and also so we can link to their organisation from our site to help patients find support for their conditions.

How to get involved – Join the editorial team

If you are interested in contributing to the vital work of the editorial team to keep the website up-to-date and to introduce new material, please contact us for more information.

Become a Lab Tests Online-UK champion

Join our champions and promote LTO-UK locally and nationally. Champion packs provide a great starting point with ideas and marketing materials, for more information or to join our champions please contact us.

Email: labtestsonlineuk@acb.org.uk Website: labtestsonline.org.uk Follow us



Trace Elements

West Midlands ACB Scientific Meeting in association with the SAS Trace Elements Laboratories

Tuesday 7th December 2021, 9:30-16:45

The Studio, Birmingham City Centre, 7 Cannon Street, B2 5EP

- 09:30 Registration and coffee
- 10:00 Opening welcome: *Pervaz Mohammed, WMACB Chair*
- 10:05 **Session 1**
Chair: *Kishor Raja, Trace Elements SAS Chair*
- 10:05 Monitoring nutritional trace elements
Nicola Barlow, BCPS
- 10:35 Method evaluation of copper and zinc spectrophotometric assays, and clinical audit assessing nutritional management of copper and zinc in a post-bariatric surgery population. *Philip Crooks, Kings*
- 11:05 Laboratory investigations for Wilson's disease. *Chris Harrington, Guildford*
- 11:35 Presentations by sponsors:
ESSLAB; QMX Laboratories; PerkinElmer; Thermo Fisher Scientific; Randox
- 12:25 Lunch
- 13:30 **Session 2**
Chair: *Nicola Barlow, WMACB/Trace Elements SAS*
- 13:30 Clinical Toxicology Case. *Muhammad Elamin, SWBH*
- 14:00 Clinical Case or ZPP Audit TBC. *Carys Lippiatt/Liz Fox, Leeds*
- 14:15 Clinical Case TBC. *Kishor Raja, Kings*
- 14:30 Preanalytical issues for measurement of zinc. *Katie Jones, Cardiff*
- 14:45 A case of zinc induced copper deficiency. *John Wadsworth, Glasgow*
- 15:00 Tea break
- 15:20 **Session 3**
Chair: *Jackie Morton, Trace Elements SAS*
- 15:20 Paediatric blood lead surveillance. *Helen Crabbe, UK HSA*
- 15:50 The use of ICP-MS in post-mortem toxicology. *Nicola Seaward, HEFT*
- 16:10 Human exposure to inorganic arsenic from rice. *Andy Meharg, QUB*
- 16:40 Closing Remarks. *Pervaz Mohammed, WMACB Chair*

This unique event will be taking place in-person, however, there will be opportunities to attend virtually should you wish to do so.

ACB Members £25, Non-Members £35.

Registration is available via the [ACB Events Calendar](#).

Deacon's Challenge Revisited

No 17 - Answer

A new diagnostic test has been introduced into your laboratory. Only one request for this test was received in July 1998 – in January 1999, 27 requests were received. For forward planning you need to be able to anticipate future demand.

Assuming that the increase in number of tests is exponential, what is the predicted workload for July 1999?

MRCPath, May 1999

The key to this question is the word 'exponential'. The relationship between the number of requests and time takes the form:

$$N_t = N_0 e^{kt}$$

The integrated form of this equation is simpler to use:

$$\log_e N_t = \log_e N_0 + k.t \quad \dots\dots\dots (i)$$

The only difference between this and the 1st order drug elimination equation is that +k.t is used rather than -k.t.

- N_t = number of requests at time t
- N_0 = number of initial requests i.e. requests in the 1st month
- t = time in months
- k = constant

The first step is to determine the value of the constant k:

- i.e. N_t = number of requests in month 6 (Jan 1999) = 27
- N_0 = number of requests in 1st month (July 1998) = 1
- t = time in months = 6

Substitute these values into equation (i) and solve for k:

$$\begin{aligned} \log_e 27 &= \log_e 1 + 6k \\ 3.30 &= 0 + 6k \\ 6k &= 3.30 \\ k &= \frac{3.30}{6} = 0.55 \text{ months}^{-1} \end{aligned}$$

This value for k can now be inserted into equation (i) to determine N_t when $t = 12$ months (July 98 – July 99):

$$\log_e N_{12} = 0 + 12 \times 0.55$$

$$\log_e N_{12} = 0 + 6.6$$

$$N_{12} = \text{antilog}_e 6.6 = 735 \text{ requests}$$

This question could also be solved graphically by plotting $\log_e N$ against t (when $t = 0$, $\log_e 1 = 0$; when $t = 6$, $\log_e 27 = 3.30$), joining the two points by a straight line, then extrapolating to where $t = 12$ months, reading $\log_e N_{12}$ then taking its antilog to give the number of requests.

Question 18

A 25 year old woman was seen at an orthopaedic clinic. Since the age of five she had "knock knees" and had several osteotomies over the years to correct the deformities. Her height was 158 cm. Her mother and grandmother had mild knock knees.

Laboratory results obtained on morning fasting samples were as follows:

Plasma phosphate	=	0.52 mmol/L
Plasma creatinine	=	89 μ mol/L
Urine phosphate	=	13.5 mmol/L
Urine creatinine	=	6.52 mmol/L

She was on a reasonably constant diet, with moderate phosphate and calcium intake for several days before sample collection. Calculate:

- The fractional excretion of phosphate (FEP)
- The fractional tubular reabsorption of phosphate (TRP)
- The renal tubular reabsorption of phosphate (TMP/GFR).

MRCPath November 2001 – modified

The Diggle Microbiology Challenge

These multiple-choice questions, set by Dr Mathew Diggle, are designed with Trainees in mind and will help with preparation for the Microbiology Part 1 FRCPath exam.

Question 27 from October's ACB News

It is possible to differentiate Salmonella from Shigella by the following:

- A. Gram stain
- B. Motility
- C. Presence of a capsule
- D. One is aerobic
- E. Shape of spore forms

Answer: B

Shigella is non-motile, Salmonella is motile. Both may produce capsule, are aerobic (facultative), are Gram negative bacilli and neither produce spores.

Question 28

True or False - Influenza A Virus:

- A. May undergo antigenic shift and antigenic drift
- B. May cause pandemics
- C. Responds to rimantidine
- D. Responds to neuraminidase inhibitors
- E. Vaccination confers lifelong protection

The answer to Question 28 will appear in the next issue of ACB News – enjoy! ■

It's not all bad in the world of infection prevention and control: the most wonderful time of the year is approaching!

Dr Elaine Cloutman-Green, Consultant Clinical Scientist (Infection Control Doctor), Deputy Director of Infection Prevention and Control, Great Ormond Street Hospital for Children

There's no getting around the fact that it's been a tough couple of years in the world of Microbiology, Virology and Infection Prevention and Control (IPC), but at this time of year it's worth reviewing the bits of our jobs that are, to be honest, pretty awesome; the bits that energise rather than drain us, and remind us of why we love our work.

Before I go any further, I should probably make a confession and declare that I am a bit of Christmas fanatic. I'm the person who goes to Christmas shops when on holiday in June and thinks that as soon as November hits, Christmas films and music are "go"! So, it's probably of no surprise that my favourite IPC event occurs in December as part of the build-up to Christmas. Hopefully, you will also appreciate how great it is even if you don't love Christmas as much as I do.

I work in a paediatric hospital and every year the patients are lucky enough to be visited by not only Santa, but also his reindeer. What does this have to do with IPC I hear you ask? Well, any animals brought on site need to have an IPC risk assessment as they can be linked to zoonotic transmission of infection and thus pose a risk to patients. My colleagues' favourite time of the year is when she gets



to do this for the rabbits and ducklings at Easter, but for me, the reindeer assessment is very much my favourite.

Reindeer can be a source of ticks which can harbour organisms that lead to Lyme disease and other tick borne infections, as well as being a source of more exotic bacterial infections – <https://www.gov.uk/government/publications/list-of-zoonotic-diseases/list-of-zoonotic-diseases>. So, although this task is a joy, it does have a serious aspect in terms of ensuring that the area is properly set up



in order to permit the patients to visit, whilst ensuring that they are kept safe and not exposed to any risk.

We work with the school and Santa to ensure that:

- ◆ All animals are established in an environment that supports safe handling of the reindeer to avoid injury.
- ◆ Signage and other provisions are made to ensure that there is no eating or drinking near to the animals or their enclosure, to reduce any infection transmission risk.
- ◆ Hand hygiene facilities are available for hand hygiene after contact, especially as the patients will feed the reindeer.
- ◆ Decontamination equipment is available to ensure the area can be adequately cleaned after Santa and his reindeer leave to visit other children.

Last year when we inspected, we also had the added aspect of ensuring that Santa was SARS-CoV-2 free and was protected from any exposures whilst on-site.

This included having Santa complete a health screening questionnaire, including questions like whether he had any symptoms or SARS-CoV-2 household contacts, such as Mrs Claus, in order to assess his SARS-CoV-2 transmission risk. He also needed to wear personal protective equipment i.e. fluid repellent surgical masks, to protect him and the children and young people.

This was a new aspect to the visit that

made it more challenging, and certainly inspired the patients to be differently engaged, leading to questions such as how does Santa manage to avoid the quarantine restrictions linked to visiting, and is Santa vaccinated?

We responded that Santa was, of course, vaccinated as he had been part of the SARS-CoV-2 vaccine clinical trials and was therefore an early adopter of the vaccine. We also talked about the fact that because he could manipulate time, he and the reindeer had plans about how they were still going to be able to safely visit all households and quarantine as necessary. We also discussed that whilst he was with us we would provide him with personal protective equipment training, in the same way their clinical teams have, to ensure that he is kept safe and also protects the children he encounters along the way. It turned into a really good way to talk to families about how we use a variety of measures in hospitals and healthcare to keep people safe, and to emphasise that although masks look scary, they are actually a really good way of protecting everyone.

This experience brings me joy every year, but last year in particular it reminded me that keeping people safe and raising awareness of what we do does not have to exist in isolation from activities that are fun and engaging. I love visiting the reindeer, however seeing patients be inspired to ask questions and explore IPC in a way they may not feel confident to do normally, also made me aware that it may be not only a joyous experience but a useful one. It turned something fun for all involved into something that was also educational and supportive of good practice. So, this year, as well as making sure I have enough carrots, I will be ensuring that I've thought about how to make the most of this unique encounter to make a difference for everyone involved. ■

An exciting new opportunity to help the ACB develop a course to support infection diagnostics

Dr Elaine Cloutman-Green, Consultant Clinical Scientist (Infection Control Doctor), Deputy Director of Infection Prevention and Control, Great Ormond Street Hospital for Children

The use of molecular techniques is increasing across all pathology disciplines. Sequencing techniques especially are no longer just the remit of genetics laboratories, but are utilised regularly in newborn screening, Histopathology, Haematology and Microbiology.

During the pandemic the importance of these techniques within the diagnosis and management of infection has increased in profile, as well as test availability through core infrastructure. As these techniques have been introduced and implemented

both widely and at pace, it is important to support the workforce with an educational approach that delivers on not just where we are now, but where we could go in the future.

The ACB Microbiology Professional Committee has therefore been working with key partners to address this education gap, supporting innovation and improvements in patient care by developing a new free short course titled 'Clinical interpretation and implementation of microbiological whole



“The membership of the ACB are key stakeholders in the future development of molecular techniques and their impact on all pathology disciplines. As such, our Members are best placed to get involved, feedback and contribute to the development of courses that will be offered to the future workforce. By doing this the ACB will shape the clinical, analytical and quality requirements necessary and ultimately support the patient pathway. The work that the MPC have done to date on developing this particular course is to be applauded and the Association will be aiming to replicate this in more specialist areas.”

Hazel Borthwick, Chair, ACB Education, Training and Workforce Committee

genome sequencing techniques’.

The course consists of an online platform and virtual learning environment delivered by Great Ormond Street Learning Academy.

This is an exciting project and, as it is being developed with our workforce in mind, it is key to understand the needs of that workforce. A research questionnaire has been developed in order

to maximise benefit to our profession by understanding what your learning needs are, and to help us fulfil the expectations you would have for a course of this type. The information provided by you will be used to directly inform course delivery and content.

Please [click here to complete this short two-minute questionnaire](#). ■

Publication Deadlines

To guarantee publication, please submit your article by the 1st of the preceding month (i.e. 1st January for February 2022 issue) to:

editor.acbnews@acb.org.uk

We try to be as flexible as possible and will accept articles up to the 20th 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. ■

Designing and building for Infection Prevention, Environment Network

Victoria Heath, Deputy Trust Lead Healthcare Scientist / Lead Quality and Risk Assurance Manager at Great Ormond Street Hospital for Children

After a delay due to the COVID-19 pandemic, the Environment Network met on Friday 8th October at Goodenough College, London for the 2021 meeting. With 50 delegates in attendance, this was one of the first large-scale face-to-face meetings since the beginning of the pandemic. All delegates were asked to provide negative lateral flow tests, wear fluid resistant surgical masks when not eating and to sign in and out when joining tables for testing processes. The organising team will admit to letting out a collective sigh of relief 72 hours after the event when no-one had reported COVID-19 symptoms!

The Environment Network works to support people in clinical, engineering and scientific roles who are interested in environmental infection control.

The theme of this meeting was 'Designing and building for infection prevention'. With ventilation and building design firmly in the national and international spot-light linked to SARS-CoV-2, the event aimed to address and encourage discussion on how healthcare facilities could be better designed to reduce transmission risk. The main topic for discussion was, "What skills and knowledge do we need to understand what it is that we don't know, and ask the questions that need to be asked?".

The first speaker was Dr John Hartley, Consultant Microbiologist at Great Ormond Street Hospital. He spoke on



Martin Kiernan

'Infection prevention and the built environment: The Good, The Bad and the Time Consuming'. The Good – providing a built environment that promotes infection prevention, patient and staff safety and comfort whilst minimising costs. The Bad (time consuming) – lack of knowledge and resources, getting competent contractors, commissioning issues, maintenance and training. The Ugly – the consequences of failure e.g. infection, loss of reputation, stress.

Dr Christine Peters, Consultant Clinical Microbiologist at Queen Elizabeth

University Hospital then shared her experiences with infection control in a new hospital building in Glasgow, highlighting the importance of Microbiologists being involved in the building process from the very beginning in order to reduce infection risks and support risk assessments.

Martin Kiernan, University of West London, spoke about some of the ways risk can be mitigated in areas where the environment cannot be adapted. If risk cannot be eliminated by removing the hazard, then other strategies such as replacement or isolation of the risk must be considered. Instead of thinking only about the infrastructure of the space we also need to consider the items that we put into it, such as beds and equipment, and where they can be positioned to reduce risk.

Dr Derren Ready, Consultant Clinical Scientist at the UK Health Security Agency, gave a talk on *Staphylococcus capitis* in neonatal units and the work that the UKHSA have been carrying out linked to this. There has been an increasing incidence of cases, but is this due to changes in detection and identification techniques, increased surveillance, or increased cases? What might be different in neonatal environments compared to other healthcare settings and how could this impact the risk assessments?

Elise Maynard, Director at Elise Maynard Associates shared her knowledge on risk assessment and governance and how they support the safety of new builds. The process of risk assessment and the associated hierarchy of control is to remove or minimise the likelihood of harm. Elise showed examples of

contamination, amplification, transmission, exposure and susceptibility within new build designs and explained the costs of getting this wrong. She also covered some of the new guidance coming out to support getting it right.

For the final lecture, Dr Lena Ciric, Senior Lecturer at University College London led an asynchronous session on the role of education in supporting infection prevention and control teams in managing the built environment.

After the lunch break, the Environment Network split into groups for delegates to share their experiences and knowledge for the following six case studies:

- ◆ Designing buildings for patient comfort as well as infection control: Are the two compatible?
- ◆ Risk assessing clinical environments: Are all areas equal?
- ◆ Ventilation challenges: Understanding ventilation options within clinical builds and their impact.
- ◆ Commissioning of new builds: Challenges and pitfalls.
- ◆ Identification and management of environmental outbreaks linked to non-fixtures and fittings.
- ◆ Non-legionella/pseudomonas water risks in healthcare environments: What monitoring should we do and what precautions should we take?

The post-event evaluation feedback showed the organisers that attendees were pleased to be engaging in face-to-face events again, and that it gave the chance for people to network and share their ideas and experiences. For further information please visit: <https://environment-network.com> or follow @IPCenvironment on Twitter. ■

Standardisation of tube colours

Dr Mike Cornes, Consultant Clinical Scientist & Pathology Clinical Director, Worcestershire Acute Hospitals NHS Trust and Sophie Hepburn, Consultant Clinical Scientist, East Suffolk and North Essex Foundation Trust

ACB Preanalytics Working Group

Background

All laboratories use blood collection tubes from a variety of manufacturers. The proper use of these, and the additives within, to take blood is critical to the quality of the sample. The tube and additive is identified by the writing on the tube but also, and more frequently used day-to-day, by the colour of the tube closures. Unfortunately, other than a small number of countries e.g. Sweden, the colour of these tube closures has not been standardised. This creates a risk of error when either a hospital moves from one tube to another, or when healthcare staff move between hospitals.

History

In 1995 the International Organisation for Standardisation (ISO) published ISO 6710:1995, replacing ISO 4822:1981, the standard on single use blood specimen collection containers. ISO 6710:1995 defined the requirements for single-use evacuated and non-evacuated single-use venous collection devices. It acknowledged at this point the lack of agreement for colour of tube closures and made a recommendation for a standardised system. In Europe this standard was replaced in 2004 by EN 14820:2004 and unfortunately the recommendation on tube closure colours was omitted from this standard. Outside of Europe, the CLSI

(Clinical Laboratory Standards Institute), formerly known as the NCCLS, followed a similar course. The fifth edition of their standard on blood collection did include a recommendation. However, for tube closure colour standardisation in 2007 GP41-A6 replaced this and omitted to include any specific recommendations on tube closure colours, but did cover colours as part of the order of draw recommendations. This was further updated in 2010 as GP39-A6 and this completely omitted a tube closure colour recommendation, but did state that laboratories should work with manufacturers on closure colour recommendations for each blood tube type.

Where are we now?

This leaves us in a situation where there is heterogeneity across the healthcare sector in the colours available to providers. This creates risks within the laboratory, particularly in certain scenarios. Large reference laboratories, or laboratories that serve a number of hospitals, could, and will, receive samples that whilst having the same tube closure colour contain totally different additives and are for a completely different purpose. There is then a risk that if samples are analysed in a bottle with unsuitable preservative, incorrect results could be produced. The other scenario, which is very applicable in the current climate, is when healthcare workers move between trusts,



EFLM TFG-STCC Proposal for the colour coding standard of the blood tube closures

Specimen type	Additive	ISO 4822 (1981) †	BS 4851 (1982)	ISO 6710 (1995)	CLSI H1-A5 (2003)	CLSI GP41-A6* (2007)	Swedish standard SS-872805 (2011)	EFLM proposal (color)
Serum	Clot activator	Z (no additive)	White (no additive)	Red	Red	Red	Red	
Serum with gel	Gel, clot activator	NA	NA	NA	NA	Red	Yellow	
Plasma	Heparin	LH (Li- heparin) NH (Na-heparin)	Orange (Li-heparin) Brown (Na-heparin)	Green	Green	Green	Light green	
Plasma with gel	Gel, heparin	NA	NA	NA	NA	Green	Dark green	
Plasma	Citrate (1:9)	9 NC	Indigo	Light blue	Blue	Blue	Light blue	
Whole blood	Citrate (1:4)	4 NC	Mauve	Black	Black	NA	Black	
Whole blood	EDTA	KE (K salt) LE (Lithium salt) NE (Sodium salt)	Pink	Lavender	Lavender	Lavender or Pearl	Lavender	
Plasma EDTA with gel	Gel, EDTA	NA	NA	NA	NA	Lavender or Pearl	White or pearl	
Plasma	Glycolytic inhibitor	FX	Yellow	Grey	Grey	Grey	Grey	

† - ISO 4822 standard had suggested a letter coding for different anticoagulants (the standard did not contain color coding proposal)

* - (former H03-A6)

for example trainees or locum workers. If they then perform a test or dynamic function test and request an incorrect certain tube closure colour then there is a risk of the results being invalid. Taken together these scenarios have the potential to at worst lead to incorrect results being released, or at best patients being re-called for repeat testing.

What has been done?

In 2015 the European Federation for Clinical Chemistry and Laboratory Medicine Working Group for the Pre-Analytical Phase (EFLM WG-PRE) published an opinion paper highlighting the issue (Simundic *et al*: Colour coding for blood collection tube closures – a call for harmonisation). Out of this an EFLM task and finish group for the standardisation of tube closure colours (EFLM TFG-STCC) was established with a goal of getting a standardised tube closure colour into international guidelines. Members of the group included both experts in the pre-analytical phase and representatives from some of the tube manufacturers.

The outcome from the group was the publication of a proposal for a standard colour system for blood tube closures covering the core blood tubes (table 1). Additionally, the group chair was invited to sit on the working group for the development of ISO 6710 which would replace EN 14820. Whilst the conclusion of this fell short of full inclusion of a standard in the guideline, it was included as an informative annex in ISO 6710:2017.

Where to from here?

The burden of progressing this now falls to all healthcare staff involved in procuring blood collection systems. We as consumers can request the tube closure colours we require to suit the needs of our own healthcare systems and should be requesting that they align with the annex in ISO 6710:2017. By doing this over time the standard tube closure colour system will become a universal standard, at least for core tests, and will as a result likely become a full part of international guidelines. ■

ACB National Audit online event

Dr Emma Dewar, Principal Clinical Biochemist, Aberdeen Royal Infirmary

On 24th September 2021, Dr Wassif (ACB National Audit Lead) warmly welcomed over 170 registered delegates to the inaugural online ACB National Audit event. The meeting promised to deliver a packed, high standard programme and it certainly didn't disappoint.

National audit of sweat testing

The morning session focussed primarily on cystic fibrosis and kicked off with an excellent presentation by Dr Sarah Heap from Birmingham Women's Hospital who had audited the adoption of various cystic fibrosis and sweat testing guidelines. By reviewing current practice, results could be compared to an unpublished audit from 2006. The results indicate a move towards more centralised services within the UK and that the majority of sites are following the guidelines. However, she noted a key change from previous



Emma Dewar

guidelines is that patients receiving flucloxacillin can now have sweat tests and that bilateral, as opposed to unilateral, testing is advised. Some sites have not implemented this which may be due to cost implications. Furthermore, there have been improvements in use of the recommended cut off of $>1 \text{ mg/m}^2/\text{min}$ being used compared to the previous audit. However, progress remains to be made in terms of data collection (as operator issues may be missed) and communicating with clinicians to ensure we are giving users an optimum service.

Cystic fibrosis: clinical aspects

This was followed by an update on clinical aspects, diagnosis and new therapies for cystic fibrosis by highly renowned Dr Maya Desai from Birmingham Children's Hospital. She provided an overview of

Audit of Guidelines for the Performance of the Sweat Test for the Investigation of Cystic Fibrosis

NHS Birmingham Women's and Children's NHS Foundation Trust

Sarah Heap

ACB National Audit Meeting
24th September 2021

By your side

cystic fibrosis and updated attendees on various aspects of the condition. Of particular note was a classification table which highlighted the numerous types of cystic fibrosis that could now be better identified through screening, including a new category – Cystic Fibrosis Screen Positive, Inconclusive Diagnosis (CFSPID). Dr Desai highlighted that significant improvements in median survival were due to better antibiotics, better nutrition and better specialist care. This led to the topic that Dr Desai was most keen to discuss – new therapies for cystic fibrosis. CFTR modulator therapies can be divided into two classes – potentiators and correctors – although some therapies combine the two. They are highly effective and provide sustained improvement in weight, lung function and sweat test results, and while there are some side effects they are generally well tolerated. This is leading to an exciting possibility of personalised medicine for cystic fibrosis patients.

Regional audit presentations

The morning session concluded with two short presentations of regional audits. The first was given by Dr Sadie Thomas and Emma Stevenson who used an audit of high sensitivity troponin T results to assess appropriateness of requesting, pathway adherence, long-term patient outcomes and potential savings. The audit evaluated a 1 hour pathway and showed the majority of requests were appropriate and patient management compared favourably to the pathway. Key findings of the audit were – of 46.1% of patients discharged on the pathway, all were still alive when followed up and implementation of the pathway could lead to large savings on cost and bed days. The second regional audit, presented by Elodie Hanon, sought to determine the frequency of SAH detected by CSF in patients with a negative CT scan and

compliance with revised national guidelines (2008). Elodie gave an excellent overview of current guidelines and the audit demonstrated that there was high compliance with the CT negative requirement. However, 26.3% of requests had no clinical details and of those that did, a number indicated that xanthochromia investigation was inappropriate e.g. encephalitis, meningitis or CSF infection.

The audit also highlighted a 62% false positive rate which may have led to increased patient stays. It was noted that draft NICE guidance is out for consultation which may decrease the number of LPs performed and laboratories would be encouraged to liaise with clinicians when the full version is published.

National Audit of BNP and NT-Pro BNP

After a break for lunch and poster viewing, Dr Gareth McKeeman from Belfast presented the findings of a national audit of BNP and NT-pro BNP assays. This audit was inspired by variation in guidelines and published cut-offs and it was hoped this audit may help standardise practice. Inappropriate requesting was a big focus of this audit and repeated inappropriate requesting led to his hospital introducing a minimum retesting interval (MRI) of 30 days. The majority of sites are using NT-pro BNP assays, with one site using solely POCT, and serum remains the preferred sample type. Fewer laboratories than expected are implementing MRI and with those that do there is variation. There was also a mix of reporting units which could be an area to standardise. When assessing compliance with NICE guidelines Dr McKeeman thanked everyone for collecting the data as he knew it was no mean feat. He was keen to acknowledge the example pathways that were sent to him and noted that while there were variations in the

pathways, it was encouraging that all laboratories were using >2000 as a red flag result and were clearly engaged with users. Dr McKeeman also very humbly acknowledged limitations of the questionnaire such as question wording. The audit had been a long time in the making and I think all delegates would agree that it was worth the wait.

Heart failure – clinical aspects

Next an exciting presentation from Professor Mark Harbinson from the same hospital, who gave an overview of cardiac physiology and assessment as well as evidence for current guidelines. He reminded the audience that the definition of heart failure was the patient had to have a clinical syndrome and evidence of cardiac dysfunction e.g. raised BNP or abnormal echocardiograph. In line with the previous talk, it was noted that frequent measurement of BNP and NT-pro BNP is not useful. However, they are useful for evaluating prognosis and disease severity. He discussed studies which have shown that in some patients with heart failure, suppression of BNP levels (known as BNP guided therapy) is linked with improved outcomes, but in order to do this, suprathreshold doses of medication may be required. However, this strategy has limited benefit in patients over 75 years old. Conversely, enhancing levels of active BNP by reducing its metabolism using neutral endopeptidase inhibitors is now being utilised as a novel therapy. The PARADIGM study demonstrated a reduction in heart failure, death and hospitalisation compared to standard treatment, therefore use of BNP as a therapy may increase in the coming years.

Forthcoming national audits

Forthcoming national audits were then discussed, with Finlay Mackenzie giving an enthusiastic summary of a proposed audit

of TFT reference intervals in pregnancy and neonates. UK NEQAS data shows variation in reference ranges and whether a front-line TSH strategy is used. He strongly encouraged those with an interest in this area to come forward to assist with the audit development. He emphasised that he seeks to not only collect the data but to act upon it. This was followed by Jamie West, who gave a concise presentation about audit of critical result reporting which would link to the new RCPATH guidelines and hoped to capture local variations. He invited members to contact himself or Mary Stapleton with any suggestions.

The meeting was drawn to a close with Dr Wassif announcing the winners of the poster competition. First place went to Emma and Sadie for “High Sensitivity Success for Achy Breaky Hearts” and second place went to Thomas Morris and colleagues for “Auditing the performance of RCPATH critical communication guidance on potassium results ≥ 6.5 mmol/L with an eGFR of ≥ 90 mL/min/1.73m²”. Both won £50 book vouchers. Dr Wassif praised the meeting for being useful and highly educational, particularly new therapies for CF and HF. He thanked all attendees, presenters and organisers, in particular Mike Lester and Christine Hall-Shelton of the ACB office for their help and support with organising the meeting. He also acknowledged Dr Louise Ward, Deputy Chair of the National Audit committee and all other members of the committee for their hard work.

Overall, a very interesting and thought-provoking meeting well organised and chaired by the national audit lead, Dr Wassif. Several of the audits presented on the day provided scope to improve local practice and the national audits were excellently complemented by renowned clinical speakers. This meeting was well attended, well received and delegates gave outstanding feedback. ■

Felicity Stokes

Felicity Jean Howsam Stokes began her career in Clinical Biochemistry in 2007 as a Trainee Clinical Biochemist at the Royal Liverpool University Hospital. Here she completed her MSc in Clinical Biochemistry through the University of Manchester, which included her dissertation on the stability of Bone Markers, published in 2010. She rotated through Alder Hey Children's Hospital and Aintree University Hospital as part of her training, always working hard to improve patient care and helping to train and educate other staff. On completion of her Clinical Scientist training, she took up a post at Northumbria Healthcare, where she had a significant role in Point-of-Care Testing. When a position became available at the Royal Liverpool she returned to her "work family" in the North West. In April 2016 Felicity moved to London, initially as a Principal Clinical Scientist at UCLH. Following attainment of the FRCPath, she progressed to Consultant Clinical Scientist at Imperial College and then at St George's in 2020.

She is remembered by her colleagues as an absolute pleasure to work with, and was greatly respected and liked by everyone in the departments she worked

in. She was a kind, friendly and encouraging leader. She had expert clinical and analytical knowledge and was an excellent teacher, with an ability to break down complex theories to a clear and comprehensible level. She was a regular lecturer on the University of Manchester MSc course and also participated in STEM awareness.

Felicity had many great ideas and plans, not only for improving the service, but also for enhancing the working lives of those within the laboratories. She was particularly admired by the Trainee Clinical Scientists who saw her as a fantastic role model and a very supportive mentor.

Felicity loved to travel and was passionate about animals and nature. In 2015, she summited Kilimanjaro, and also travelled to Sri Lanka, Australia, South America, Mauritius and Madagascar, among others.

Felicity was an incredibly kind, caring person. Her supportive nature and loyalty were assets within her professional life and she is a greatly missed friend and colleague. Our thoughts are with her friends and family. ■

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Industry Insights: December 2021

Doris-Ann Williams, Chief Executive, BIVDA

As we reach the end of 2021, hopefully seeing the pandemic subsiding to established monitoring and managing of another infectious disease, COP26 has been high on our agenda and BIVDA COO, Helen Dent is leading our thinking on sustainability and how we, as an industry can become environmentally friendly across all aspects of our work.

As you will know, NHS England¹ aims to be carbon neutral by 2040 on the emissions it controls directly and has set a target of 2045 to be neutral on the emissions it influences. This is an important goal with very real benefits to society, but there is much more that can be done across the industry.

The life sciences industry leads the way in healthcare. Now, the onus is also on us to take action and start operating in a more sustainable way.

Avoiding a supply chain collapse

So, where do we start? The NHS target is ambitious and challenging, it is the right

thing to do, but goals like this aren't the most helpful. Being sustainable cannot happen overnight. The first step is creating a cross industry drive to be sustainable. We can't have a system where one entity is a champion of sustainability setting its own deadlines and expecting everyone else to fall in line. The NHS carbon neutral target is important, but it doesn't solve every issue facing the environment right now. It also doesn't consider the capability of the industry, or the demand from consumers to which the industry must respond.

A combined approach involving the government, the NHS and the entire life sciences industry, all the way through to the smallest supplier and contractor, is the best way for everyone to truly come together more sustainably. Without clearly defined goals that have been decided on and signed up to as a collective, there is a danger of serious disruption in the supply chain as individual companies charge



*Doris-Ann with
the rest of the
BIVDA team*

headfirst into decisions without aligning with the rest of the sector. To deliver a sustainable future, companies need to be sustainable long-term.

A new approach

The diagnostics industry strives to innovate every day, finding ways to identify and diagnose some of the world's deadliest diseases and health conditions. Innovation is core to our day-to-day activities, and we need to apply that same creativity and drive to working more sustainably.

Working to be carbon neutral is one way we can achieve this dream of sustainability; we can do more than just responding to a number. Not only should we, as an industry, be leading the way in bringing that 2045 goal much closer, but we should also be looking beyond carbon neutrality for other aspects of the way we work.

We have to look at the way we work on a granular level and ask ourselves a lot of difficult questions: Do we need single use components for everything? What do we do about plastic composition and products? Where is our waste going and can we include waste as part of our controlled supply chain?

A great example of this is our use of chemicals and natural resources in the med-tech space. As we start to realise the environmental impact of certain chemicals' use of natural resources, and restrict their use, we need to set a time frame in which we can phase in alternatives that have a smaller environmental impact. This isn't a quick win but it is achievable with the right approach.

Finally, as we develop new diagnostic kits we need to be thinking about the way they travel, how they're used, and where they end up. We aim to streamline the testing process as much as possible by delivering quicker and more accurate results with every new product launch, but that same streamline mentality needs to be applied to sustainability. How can we

improve patient safety and testing accuracy while creating a circular economy and reducing waste? Our highly regulated industry needs to be viewed holistically, not in silos.

The right thing is never easy

It's no secret that this is going to take a lot of work, which is why BIVDA launched a Sustainability Training Programme² for its members, as a way to start sharing ideas and foster a more combined attitude. Sustainability is a key issue of operational transformation that the IVD sector must take heed of considering the very real threat of climate change, our collective corporate social responsibility and the duty we all share to protect the environment. As the trade association for the IVD sector, we're proud to champion the sustainable charge and help empower and facilitate the sector on its journey towards enhanced sustainability.

Regulation of IVDS remains a significant issue for BIVDA members and I am pleased to say we have recruited Ashleigh Batchen as Regulatory Affairs Manager at BIVDA. Ashleigh was formerly at MHRA and had a strong interest in IVDs while she was there along with a degree in genetics so is a great addition to our team. We will also be continuing to work as the voice for the IVD industry with support from our Government Affairs Manager Michael Redmond and Policy Officer Ben Kemp. So, I am looking forward to a busy and productive year to come.

Finally, as I close, I would like to wish all ACB Members a very peaceful Christmas and a happy, healthy 2022.

1 <https://www.england.nhs.uk/greener-nhs/a-net-zero-nhs/>

2 <https://www.bivda.org.uk/News-Events/BIVDA-Press-Releases/ArticleID/602/BIVDA-launches-its-Sustainability-Training-Programme-for-members-in-partnership-with-SGS> ■

ACB News Crossword

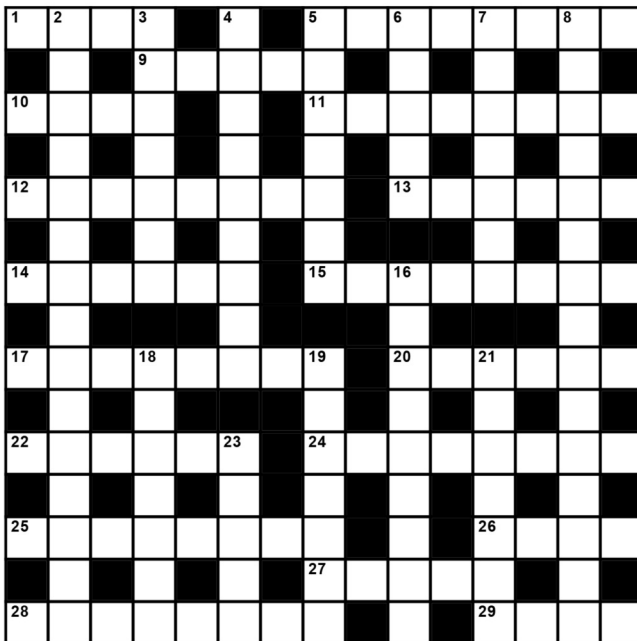
Set by Rugosa

Across

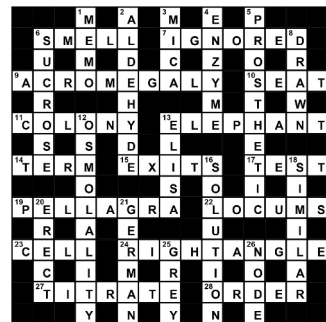
- 1 Edible sliver? (4)
- 5 Gives value of tails for a 24 figure (8)
- 9 French friend of LSD is one (5)
- 10 Identify location (4)
- 11 Is it socially acceptable getting upset about butter in Italian dessert? (8)
- 12 Pus expunged from pasteuriser-treated vessels (8)
- 13 Light optical instruments (6)
- 14 Lister's antiseptic unhappily no help (6)
- 15 Identical make-up of skinhead females (8)
- 17 We hear you are in charge of current identification of a stone constituent (4,4)
- 20 Let in first come smorgasbord customer (6)
- 22 Separate out success directly (6)
- 24 Incorrectly assign gold distribution (8)
- 25 Addictive drug treatment precondition drop-out (8)
- 26 Set-back in haemodialysis (4)
- 27 Boredom from dealing with insurance (excluding cars) (5)
- 28 Charge back about worthiness of retired professional's title (8)
- 29 Not one religious person, we hear (4)

Down

- 2 Hid my prehistory about reason for weight loss (15)
- 3 Slick seabird model (7)
- 4 Bitter violent civil riot (9)
- 5 Takes improper kiss to note condition with diagnostic odour (7)
- 6 Pastoral artist follows right turn before left (5)
- 7 Outsize doctor's is a driver for water transport (7)
- 8 Orchestral arrangement – could bad tinnitus mar tone? (15)
- 16 Castigating unreliable plastic surgeon as ops cancelled (9)
- 18 Against trip outline (7)
- 19 Stages (a third is given for interrogation) (7)
- 21 Anabolic peptide results in you and me returning pupil home (7)
- 23 Drunken wine taster discarded eaten joint (5)



Solution for October Crossword



ACB News

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