

ACBNews

The Association for Clinical Biochemistry & Laboratory Medicine | Issue 668 | December 2020



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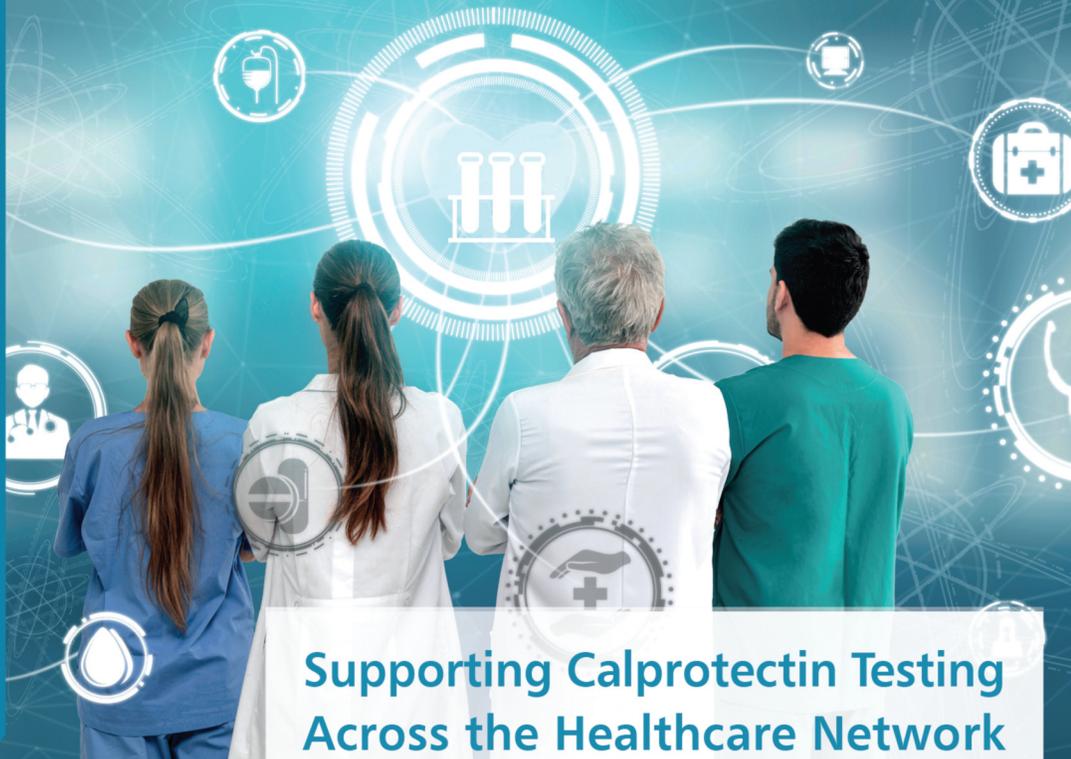
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*Front cover: Ian Hanning retires
after 17 years on the ACB News
editorial team!*

ACB News

The bi-monthly magazine for clinical science

Issue 668 • December 2020

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

Better Science, Better Testing, Better Care

President's Message – December 2020

As we near the end of 2020 I am sure none of us can quite believe what a year it has been.

I cannot mark the end of the year without thanking each and every one of you for your hard work, commitment and dedication over the past 9 months. The role that ACB Members have played in leading NHS Pathology services to step up to the huge challenge around COVID-19 testing and management, restoration of elective services and keeping high quality Pathology services running, is exceptional. Never more have the patients we serve needed and deserved 'Better Science, Better Testing, Better Care'.

As we look forward with some hope to the development of effective vaccines, ACB Members are going to be critical in the development of new assays and the adoption of new technologies associated with COVID-19 to help the nation deal with this and other public health emergencies.

“Never more have the patients we serve needed and deserved Better Science, Better Testing, Better Care”

As the interest and comment from media has intensified we have become more confident in getting our message out to the media and government decision makers. I have to thank the ACB Communications team for supporting this work and for turning responses around extremely rapidly to influence and try to shape the response to the pandemic. I am



confident that this has reinforced the value that we add and frankly that the response to the pandemic could not have been mustered without you.

This edition of *ACB News* also marks the end of Ian Hanning's tenure as Lead Editor who, after 17 years of dedicated service, has decided to hang up his pen and hand over to Gina Frederick. We are hugely grateful to Ian, who stepped up from being an Associate Editor to Lead Editor in February 2017 at a time when the *ACB News* experienced some change.

Thank you Ian and we hope you have a very happy retirement and you go with all our best wishes. Thanks for your contribution over the years and best wishes to all our Members for the holiday season and the New Year. ■

Message from the CEO

As I write my last update of the year I can't quite believe what a year this has been for all of us. I can only echo Neil's praise of all the ACB Members for the hard work, dedication and professionalism you have shown over the past nine months. I am in awe.

Back at the ACB Office, we've been using this time to bring the organisation into the 21st century with a new digital infrastructure and, whilst we've had the Tooley Street premises completely to ourselves, we've taken the opportunity to have a major clear out so we can make better use of the space when we are open to members again.

I want to take this opportunity to thank the staff team at ACB who have had to adapt really quickly to working remotely (with very poor wifi at the start), get used to being managed by Zoom and deliver a virtual events programme on Microsoft Teams.

They have been flexible, willing to learn and innovative in their approach to solving the new problems thrown at us on a daily basis.

We were sad not to bring you Focus this year but we are excited about trialling a new virtual format in 2021 and to give many more members the opportunity to participate.

Council has agreed a new strategic direction with the ambition to become 'The Voice of Laboratory Medicine' and will be strengthening our communications and public affairs activities next year to achieve this.

We will be increasing our focus around diversity and inclusion in the profession, environmental sustainability in labs and supporting innovations in new technology



and techniques. We have already enhanced our Scientific Scholarship programme with additional support from Abbot to identify solutions to combat COVID-19.

I hope you have enjoyed our regular COVID newsletter, the digital version of *ACB News* and our virtual workshops and events over the past months. The participation numbers and feedback have been very positive.

We'll be conducting another annual membership satisfaction survey soon so do please feed back on your experience this year, what you value most and what you'd like to see in the future.

With the fantastic progress on vaccines I am optimistic that we will be able to get members together again next year and I look forward to meeting many of you face to face.

Have a great Christmas and New Year.

I look forward to working with you next year. ■

Jane Pritchard

The role of cytokines in COVID-19 pathology and choice of therapy

Correspondence

Following the article about the ACB COVID-19 Scientific Scholarships in *ACB News* (October 2020, page 24), we received the following article from Abdulla A-B Badawy, Consultant Clinical Biochemist, Honorary Professor of Clinical Chemistry (Cardiff, Retired).

The recent awards of the ACB COVID-19 Scientific Scholarships, with support from Abbott, represent a progressive step, the outcome of which should enhance our understanding of the pathophysiology of this viral infection and thus facilitate the rational choice of the appropriate immunotherapy. I wish the Awardees and their projects great success and should like to make some relevant comments in support of the proposed approach based on the limited studies performed so far.

The plasma cytokine and chemokine status in COVID-19 patients was initially reported in some detail in two papers from China^{1,2} and subsequently, more recently in three papers, two from the USA^{3,4} and one from the UK.⁵ The first 2 studies^{1,2} involved small numbers of patients and controls, whereas the later three included progressively increasing numbers. All studies demonstrated a largely proinflammatory environment that is stronger in severe, compared with mild, cases. The later three studies³⁻⁵ were longitudinal and more informative, having identified early markers of disease outcome in clusters³ or signature traits⁵ predicting occurrence of coagulopathy, length of hospitalisation, severity of infection and

death. The most prominent among these markers are interleukins IL-6, IL-8, IL-10, IP-10 [interferon (IFN)- γ -induced protein 10], TNF- α (tumor-necrosis factor- α) and IFN- α . The fourth study⁴ was limited to 4 cytokines, whereas all the other studies were comprehensive. A detailed assessment of risk of death with 42 biomarkers³ revealed increasing risk with the above markers from 1.6 with IL-8 to 4.5 with IFN- α . The authors³ identified IFN- α as the second largest death risk factor after IL-18, a cytokine also known as the IFN- γ -inducing factor. Elevation of IFN- α levels was also reported in the second study.² These and other findings reported in the above papers demonstrate the value of detailed assessment of the immune status in COVID-19 and the importance of longitudinal, rather than single point, analysis.

Yet, paradoxically, the preferential elevation of IFN- α among interferons in some patients may also explain the therapeutic efficacy of dexamethasone (DEX) and potentially other glucocorticoids in COVID-19. Whereas the WHO and others do not recommend the “blanket” use of glucocorticoids in COVID-19, DEX was recently shown in a clinical trial⁶ to lower the death rate in ventilated patients (by 30%) and in those on O₂ only (by 20%), but not in those not requiring respiratory support, thus demonstrating efficacy only in severe cases. A potential explanation of the DEX efficacy has been proposed⁷ based on the ability of this powerful synthetic glucocorticoid to block the prostaglandin PGE₂ stimulation of the IFN- α induction of the extrahepatic tryptophan (Trp)-degrading enzyme indoleamine 2,3-dioxygenase (IDO). IDO induction by proinflammatory cytokines enhances Trp degradation along the kynurenine pathway

thereby increasing production of proinflammatory kynurenine metabolites that can suppress immune defences.⁸ By contrast, DEX potentiates the PGE₂ stimulation of IDO induction by IFN- γ ⁶ and its use in patients with a preferential increase in this latter cytokine could be harmful. This further illustrates the potential value of assessing the cytokine status in determining the choice of the appropriate immunotherapy.

The examples described briefly here strongly suggest that future investigations along the above lines by the Awardees and other researchers will enhance our understanding of the immune status in COVID-19 infection and provide a rational basis for choice of the most appropriate and potentially cytokine-based personalised therapy. The proposed studies by the Awardees should also confirm and extend the findings reported so far.

References

- 1 Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, *et al.* Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *Lancet* 2020; 395: 497-506
- 2 Liu Y, Zhang C, Huang F, Yang Y, Wang F, Yuan J. Elevated plasma levels of selective cytokines in COVID-19 patients reflect viral load and lung injury. *Nat Sci Rev* 2020; 7: 1003-11. doi: 10.1093/nsr/nwaa037
- 3 Lucas C, Wong P, Klein J, Castro TBR, Silva J, Sundaram M, *et al.* Longitudinal analyses reveal immunological misfiring in severe COVID-19. *Nature* 2020; 584: 463-469. <https://doi.org/10.1038/s41586-020-2588-y>
- 4 Del Valle, DM, Kim-Schulze S, Huang H-H, Beckmann ND, Nirenberg S, Wang B, *et al.* An inflammatory cytokine signature predicts COVID-19 severity and survival. *Nat Med* 2020; 26: 1636–1643. <https://doi.org/10.1038/s41591-020-1051-9>
- 5 Laing AG, Lorenc A, del Molino del Barrio I, Das A, Fish M, Monin L, *et al.* A dynamic COVID-19 immune signature includes associations with poor prognosis. *Nat Med* 2020; 26: 1623-1635. <https://doi.org/10.1038/s41591-020-1038-6>
- 6 The Recovery Collaborative Group. Dexamethasone in hospitalized patients with COVID-19-Preliminary report. *N Eng J Med* 2020. doi: 10.1056/NEJMoa2021436
- 7 Badawy AA-B. Immunotherapy of COVID-19 with poly (ADP-ribose) polymerase inhibitors: starting with nicotinamide. *Biosci Rep* 2020; 40 <https://doi.org/10.1042/BSR20202856>
- 8 Badawy AA-B. Kynurenine pathway of tryptophan metabolism: regulatory and functional aspects. *Int J Tryptophan Res* 2017; 10: 1-20. doi: 10.1177/1178646917691938 ■

Female voices ‘drowned out’ in reporting on COVID-19

Analysis of stories across six countries including the UK found fewer than a fifth of experts quoted on the pandemic were women. Read ‘The Missing Perspectives of Women in COVID-19 News: A special report on women’s under-representation in news media’ here: <https://www.iwfmf.org/wp-content/uploads/2020/09/2020.09.16-FULL-COVID-REPORT.pdf> ■



ACB Response to NHS England and NHS Improvement's proposal for community diagnostic hubs

The Association for Clinical Biochemistry & Laboratory Medicine (ACB) welcomes NHS proposals to create community diagnostics hubs.

Professor Neil Anderson, President of the ACB said:

These proposals present an opportunity to serve the public health needs of the local population and enable the appropriate prioritisation of clinical diagnostic services. In future local clinical diagnostic services should not be disrupted to such an extent by a national public health crisis so as to cause the huge backlogs of demand that we have experienced during the COVID-19 pandemic. Community testing offers clear benefits to patients in terms of accessibility and increased economic

activity around local centres. All of these factors contribute to better long term public health outcomes. However, to achieve these ambitions community diagnostics services must have Clinical Leadership and be fully integrated with NHS Pathology to ensure quality of delivery, integration of public health data and the sharing of best practice and scientific knowledge. The ACB is a unique community of healthcare professionals of both scientists and medics. They possess a wealth of scientific knowledge and practical experience in the leadership and delivery of clinical diagnostics and we welcome the opportunity to work alongside NHS & NHSI on the practical implementation of these plans. ■

Rapid evaluation of Lateral Flow Viral Antigen detection devices (LFDs) for mass community testing

Published 8th November 2020

A preliminary report from the Joint PHE Porton Down and University of Oxford SARS-CoV-2 test development and validation cell. [Read the Report here](#) ■

Pfizer and BioNTech announce vaccine candidate against COVID-19 achieved success in first interim analysis from Phase 3 study

From the Pfizer website – 9th November 2020

<https://www.pfizer.com/news/press-release/press-release-detail/pfizer-and-biontech-announce-vaccine-candidate-against> ■

Cold or Flu unlikely to cause false positive COVID-19 test result

Reuters 6th October 2020 and Kumparan 8th October 2020

Dr Rob Shorten, Chair of the ACB Microbiology Professional Committee, responded on behalf of the ACB to a request from Reuters for comments on social media posts claiming that common cold and flu can produce a COVID-19 positive test. Rob's comment was cited in [Reuters](#) and [Kumparan](#), an Indonesian website:

"The swab tests that are used to see if a patient has COVID-19 are very specific. They use technologies that detect specific sections of the virus's genetic code (RNA). Swab tests are also used to detect flu and other cold viruses, but these look for different genetic sequences. The specific nature of these sequences mean that someone with flu or a common cold virus is highly unlikely to test positive for COVID-19. False positive results can occur with all tests, and the likelihood of this happening increases as the prevalence of a disease in a population falls. Many respiratory infections have some overlapping symptoms and these specific diagnostic tests are very good at differentiating COVID-19 from flu and other common viruses." ■

NHS employers FAQs: caring commitments

Published 16th October 2020

Update to the COVID-19 FAQs on the NHS employers website relating to childcare which cover the following situations as a result of children returning to school:

What do we pay staff whose children are unable to attend school, nursery or childcare as a result of closures, or because they have been sent home to self-isolate, or have COVID-19 symptoms?

- a. *Where a child has a suspected case or confirmed case of COVID-19 and there is a government requirement for the employee to self-isolate.*
- b. *Where a child is sent home due to a COVID-19 case in their bubble and there is no government requirement for the employee to self-isolate.*

<https://www.nhsemployers.org/covid19/staff-terms-and-conditions/staff-terms-and-conditions-faqs/pay#Caring> ■

The 'other vaccine': why the Imperial job offers a different kind of hope in the fight against COVID-19

The Independent | Samuel Lovett | 8th November 2020

<https://www.independent.co.uk/news/health/coronavirus-vaccine-imperial-oxford-latest-covid-b1639456.html> ■

Annals of Clinical Biochemistry

COVID-19 papers

Benton, S. C. & Fraser, C. G. (27th October 2020). Faecal immunochemical tests in the COVID-19 pandemic; safety-netting of patients with symptoms and low faecal haemoglobin concentration – can a repeat test be used. *Annals of Clinical Biochemistry* <https://doi.org/10.1177/0004563220967569>

Shipman, K. E., Weaving, G., & Cromwell, T. (28th July 2020). Identification of analytical issues in method verification of SARS CoV-2 serology. *Annals of Clinical Biochemistry*. <https://doi.org/10.1177/0004563220944973>

Zemlin, A. E., & Wiese, O. J. (2nd June 2020). Coronavirus disease 2019 (COVID-19) and the renin-angiotensin system: A closer look at angiotensin-converting enzyme 2 (ACE2). *Annals of Clinical Biochemistry*. <https://doi.org/10.1177/0004563220928361> ■

COVID-19 papers in other journals

Clinical Chemistry and Laboratory Medicine (CCLM), De Gruyter
COVID-19 articles **in the latest issue of CCLM**.

The Lancet

Challenges in creating herd immunity to SARS-CoV-2 infection by mass vaccination. [https://doi.org/10.1016/S0140-6736\(20\)32318-7](https://doi.org/10.1016/S0140-6736(20)32318-7)

The UK needs a sustainable strategy for COVID-19: [https://doi.org/10.1016/S0140-6736\(20\)32350-3](https://doi.org/10.1016/S0140-6736(20)32350-3)

The Lancet Child and Adolescent Health

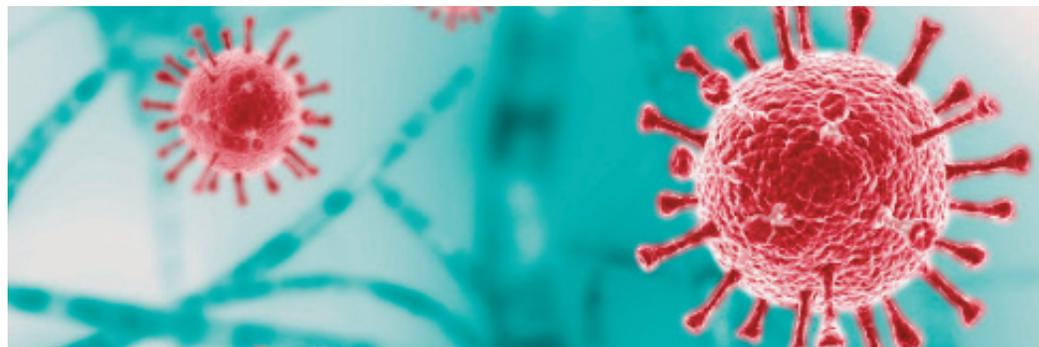
Characteristics and outcomes of neonatal SARS-CoV-2 infection in the UK: a prospective national cohort study using active surveillance. [https://doi.org/10.1016/S2352-4642\(20\)30342-4](https://doi.org/10.1016/S2352-4642(20)30342-4)

Nature Immunology

Distinct antibody responses to SARS-CoV-2 in children and adults across the COVID-19 clinical spectrum. <https://doi.org/10.1038/s41590-020-00826-9>

Nature

Age-specific mortality and immunity patterns of SARS-CoV-2. <https://doi.org/10.1038/s41586-020-2918-0> ■



Covid-19 Workforce wellbeing

NHS Practitioner Health and Time to Change have some useful information and tips on caring for yourself and your family, friends and colleagues during these times. Click on the links to read more:
<https://www.practitionerhealth.nhs.uk/covid-19-workforce-wellbeing> and
<https://www.time-to-change.org.uk/coronavirus> ■

COVID-19 online events

The Royal College of Pathologists have some useful resources on COVID-19 and its implications and impact on pathology.

[Click here to find out more.](#) ■

Other resources

WHO website – Draft landscape of COVID-19 candidate vaccines:

<https://www.who.int/publications/m/item/draft-landscape-of-covid-19-candidate-vaccines>

Gov.uk – The R number and growth rate in the UK:
<https://www.gov.uk/guidance/the-r-number-in-the-uk> ■

Support for Retired Members

Ruth Lapworth MBE, Organiser, Retired Members' Group

We recognise Retired Members might be experiencing particularly difficult periods of isolation. If you would like to connect by email or telephone with other Retired Members in the current circumstances, let us know by emailing retired.connections@acb.org.uk ■

Send us your good news stories

Have you heard about a lab doing incredible work on COVID-19 testing? Or perhaps you'd like to share how you're staying positive during self-isolation? Email communications@acb.org.uk with your experiences during this difficult time to share with other Members. ■

Have you seen inaccurate reporting of science in the press?

The ACB has a role in ensuring that the influencers of public opinion are hearing from experts to inform their reporting. If you see inaccurate science reporting of COVID-19 testing in the press, please let us know asap by emailing communications@acb.org.uk and the ACB Communications team will consider how best to respond to make sure the inaccuracies are corrected, for example, by issuing an expert briefing to the press. ■

Keep up to date with COVID-19 news on the ACB website:
<http://www.acb.org.uk/whatwesay/covid19-updates>

A farewell from our Lead Editor . . .

After 17 years of being on the *ACB News* editorial team, including 4 years as Lead Editor, I am hanging up my red pen (if there is such an expression!). This role also included, for a while, serving as Editor of the *Focus Handbook* and the *Focus Invitation to Participate*.

There are many people to thank who have supported me over the years. Most recently, Gina Frederick, who has taken on an expanded role, and will now take on the Lead Editor role; Associate Editors Nicola Merrett, Chris Pitt, Sophie Barnes, Darren Ready (Microbiology) and Rachel Wheeler

(Immunology); the ACB Office staff, including Mike Lester and Nic Law, and more recently Agnes Becker and Jane Pritchard; and the Meeting Makers staff, in particular, Vicki Grant. Thanks must also go to our publisher, Sue Ojakowa of PRC Associates, and to our printer (before we went online only in 2020), Swan Print Ltd.

I would also like to thank all those who sit on the ACB Executive, Council and the Publications Committee for their useful input and support throughout the years.

I must also thank my mentor and predecessor, Professor Jonathan Berg.

Finally, I cannot thank Nikki Williams our designer enough for bearing with me as she works through each issue, keeping track of articles and sorting the design and layout of each edition, often with very last minute changes!

2020 has been a very challenging year for all of us. Some of our colleagues have lost family and friends and the pressures on the NHS have been immense. Hopefully 2021 will be a better year for all of us.

On this positive note, I would like to wish everyone a Merry Christmas and a very Happy New Year. ■

Gina Frederick takes over as Lead Editor of ACB News as Ian Hanning stands down after 17 years on the ACB team



. . . and a farewell from the team . . .

We can't quite believe Ian is leaving *ACB News*. He has been a fixture at *ACB News* for the entire time most of us have worked here – and some of us have been here for a long time! He has been the best of Editors – calm, unflappable and knowledgeable and always a pleasure to work with. He will be missed but we wish him the best for the future and we hope to see him at future *ACB* events when are able to meet in person again.

Jane, Mike, Cheryl, Christine, Christina, Dragana, Nic and Eleanor, ACB staff team

I have had the pleasure of working with Ian on *ACB News* for the last five years. Ian has dedicated many years to *ACB News*, the last four as Lead Editor, and has done a fantastic job of editing and making sure the publication is ready on time. He is a much-respected member of our team, and we will all miss him, but we wish him a well-deserved, long, happy and healthy retirement. Thank you Ian.

Gina Frederick, Lead Editor, ACB News

Thank you, Ian, for all the hard work and your commitment to the *ACB*.

You have done a great job with *ACB News* and it is very much appreciated.

I hope you enjoy your retirement. *Kam Kaur, Director of Communications, ACB*

It's been a pleasure working with Ian over the past couple of years on the *ACB News*. He has been a great support while I've found my feet as part of the editorial team.

Nicola Merrett, Associate Editor, ACB News

Ian carefully co-ordinated the editorial team and at *Focus*, he introduced me to the rest of the key players who were all so welcoming. Ian set a patient tone of collaboration and inclusion and welcomed new ideas. Take care, stay safe and all the best to you and your family, Ian. *Chris Pitt, Associate Editor, ACB News*

I would like to thank Ian for all the time and energy he has spent as *ACB News* Editor. I have enjoyed working with him and the team over the past 17 years and wish him a very happy retirement. *Sophie Barnes, Associate Editor*

It has been a real pleasure to work with Ian over the last few years, while he patiently chased me every few months for my contribution to the *ACB News*. Producing such a well-read and professional publication consistently requires more effort than most people realise and Ian also had to step in to a certain Dr Berg's shoes! I will miss my emails with Ian but I am sure I will see him (once we can all get out again) and look forward to working with Gina and the rest of the editorial team.

Doris-Ann Williams MBE, Chief Executive, BIVDA

Our Editor is retiring and we will miss him very much

he has a way of doing things that requires his certain touch.

For almost 20 years he's worked to 'ACB Publications' pressure but now he's had enough and wants some well-earned leisure!

As part of a current very happy *ACB News* team, I wish you all the best Ian.

Sue Ojakowa, PRC Associates

It has been an absolute pleasure to work alongside Ian for nearly 30 years – he will be dearly missed by all those who knew and worked with him. Happy retirement Ian!

Nikki Williams, NAB Services

Ian, I definitely overstayed my welcome as *ACB News* Editor for 28 years, but you must be the runner-up with 17 years on the team!

Jonathan Berg, Laboratory Operations, Oxford Immunotec, Abingdon

Merry Christmas & Happy New Year

from the *ACB News* Team

As Lead Editors, we would like to thank 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, Derren Ready (Microbiology) and Rachel Wheeler (Immunology); together with Agnes Becker, Mike Lester, Jane Pritchard and the *ACB* Office staff; 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 2 months.

Merry Christmas!
Here's to a Happy New Year!
Ian Hanning & Gina Frederick

Sudoku This month's puzzle

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

Solution for October

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

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ACB National Meetings go virtual for 2021

Sarah Robinson, National Meetings Secretary

Given the ongoing restrictions on travel and physical meetings due to the COVID-19 pandemic we have taken the difficult decision to postpone our national Focus conference due to take place on 10th-12th March 2021 at the ICC in Belfast.

In its place, we are taking the opportunity to create a virtual version of our Focus and FILM meetings during the week commencing 26th April 2021.

We are working on the programme now for announcement in early January.

If you'd like to register interest, either in delegate places or sponsorship opportunities, please contact us and we'll email you directly once full details are available.

All of the poster abstracts that were submitted for Focus 2020 will be carried over to the new event and we will be asking for additional submissions by

8th January. If your abstract was selected for an award in 2020 then this selection will stand and we will also be adding additional selections from the 2021 submissions.

If you booked a delegate place for Focus 2020 please do contact focus2020@conferencepartners.com to receive a refund.

It's a shame we can't all be together but rest assured we will do our very best not only to bring you high quality content but also to create opportunities for you to socialise with other members.

All things being well, we plan to return to the ICC in Belfast in 2022 where we can once again meet in person, as well as feature some of the virtual innovations that we will be trialling in 2021.

In the meantime, best wishes for the holiday season and the New Year. ■

Future AQMLM Zoom Meetings

Jonathan Middle, Chair, AQMLM

Our programme of Zoom meetings for December and January is as follows:

- ◆ **Zoom 07** "Setting Quality Specifications Based on Biological Variation"
11:00 Tuesday 8th December 2020
- ◆ **Zoom 08** "De-mystifying Measurement Uncertainty"
11:00 Thursday 14th January 2021

For registration and further information on the other meetings please visit:

<https://www.aqmlm.org.uk>

Participation in our Zoom meetings is free of charge for full AQMLM Members with annual subscriptions (£25.00). Non-members pay a one-off fee of £10.00 per meeting.

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ABHI leadership further strengthened with boost to diagnostics expertise

The following press release was received in September from the Association of British Health Tech Industries (ABHI) which may be of interest to Members.

ABHI is pleased to welcome Steve Lee to its leadership team. In the newly created role of Director, Diagnostics Regulation, Steve will lead ABHI's engagements on diagnostics regulations.

Steve brings over 20 years of government experience from the MHRA, most recently in the role of Senior Regulatory Policy Advisor – IVDR.

His appointment is a significant boost to ABHI's diagnostics capabilities and reflects the decision by ABHI's Board to build and strengthen its diagnostics work and community. Two years ago, ABHI began using HealthTech as the descriptor for its industry, noting the blurring between medical technologies, digital devices and diagnostics. In the time since, the Association has done much to establish its leadership of the sector.

A key lesson of the COVID-19 pandemic is that the health system must place diagnosis at its core. Government and the NHS recognise and understand this. ABHI's report on the role of diagnostics in modern healthcare delivery led to the creation of the Diagnostics Alliance, and the Health Technology Partnership, led jointly by Ministers and ABHI, has been

tasked to consider a strategy to invest in "resilient, scalable and holistic" diagnostics capability for our country.

Steve will work closely with Nishan Sunthares, ABHI's Chief Operating Officer, and Eleanor Charsley, ABHI's Associate Director, External Affairs, to deliver leadership on this agenda, and build a community of members with specialism in diagnosis as part of the wider HealthTech sector. IVD regulation is at a critical juncture, and Steve will provide expert support and guidance to the Association's long-standing and newly joined diagnostics companies.

A Biomedical Scientist by background, Steve worked within both the NHS and industry prior to joining MHRA in 1996. Commenting on his appointment, Steve said:

"I am delighted to be joining the ABHI team at what is an important, but also incredibly exciting time for the diagnostics sector. The pandemic has demonstrated the MHRA's effective use of regulatory flexibility to enable access to diagnostics, and there is much we can take from this experience as we look at future regulatory frameworks within the UK. I look forward to working with ABHI members to ensure their voice is heard and represented." ■

Are you interested in joining the ACB News team?

We are looking for someone to join our small and friendly *ACB News* team as an Associate Editor. This will involve proof-reading articles (attention to detail is essential) and may involve contact with authors for any clarifications, writing meeting reports and liaison with other groups (e.g. the Focus and FiLM Committees). For further information and/or an informal chat, please contact: Gina Frederick, Lead Editor, *ACB News*, Clinical Biochemist Royal Derby Hospital. Tel: 01332-789407 E-mail: gina.frederick1@nhs.net



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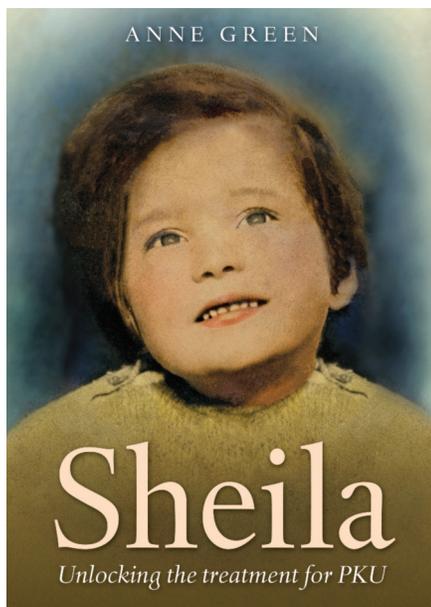
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Sheila – Unlocking the Treatment for PKU

by Anne Green



In 1951, at two years of age, Sheila was diagnosed with Phenylketonuria (PKU). With no treatment available, Sheila's mother Mary persevered until she obtained help from three pioneering doctors at Birmingham Children's Hospital including Biochemist Dr Evelyn Hickmans. They worked tirelessly in the hospital biochemistry laboratory to prepare a special formula for Sheila making her the first person in the world to receive dietary treatment for PKU.

"This book movingly tells the story of a family and their contribution to the history of PKU" – Professor Dame Sally Davies, Master, Trinity College, Cambridge, UK

Until now, little has been known about the life of Sheila, and her family in

Birmingham, and the hardships and sacrifices they endured. In this new book, published in October 2020, Anne tells the remarkable story of Sheila, her brothers, and her courageous and tenacious mother. The introduction of newborn screening and worldwide treatment for PKU are Sheila's legacy and her story will be important to people with PKU, their families, health professionals and readers interested in the history of medicine.

"Birmingham can be proud of the part it has played in the history of global health" – Professor Sir Muir Gray, University of Oxford, UK

In 1971, twenty years after Sheila was diagnosed, newly qualified junior Biochemist, Anne Green, began her scientific career at the same hospital where Sheila was first treated. Since then Anne's career and Sheila's story intertwined which led to Anne's desire to find out more about Sheila's life. This book is the fulfilment of a career-long interest in PKU and newborn screening.

About the Author

Anne Green PhD FRCPATH FRCPCH had a distinguished career as a Paediatric Clinical Biochemist in the UK National Health Service. She was Consultant Clinical Chemist at Birmingham Children's Hospital from 1982-2006 and Director of the Newborn Screening/Clinical Inherited Metabolic Disorders Services for the West Midlands. She was appointed Professor of Paediatric Biochemistry at the University of Birmingham in 1994. Anne has published widely in the fields of newborn screening



and inherited metabolic disorders and has held numerous posts on national and international professional organisations, including the Society for the Study of Inborn Errors of Metabolism, and the International Society for Neonatal Screening. She was co-founder of both the British Inherited Metabolic Disorders Group and the National Metabolic Biochemistry Network and was Lead Scientist for the UK National Newborn Screening Centre 2006-2011.

How to order the book

Published by **Brewin Books**

www.brewinbooks.com

ISBN 978-1-85858-714-1

Cost: £12.95 excluding any postage and packing costs.

For UK orders the book is also available to purchase directly from Birmingham Children's Hospital with **free P&P** at

<https://store.bch.org.uk/>

All proceeds from the book will be for the Birmingham Children's Hospital Charity. ■



Listen to Anne chatting about the book on YouTube:

<https://youtu.be/KtxoTn-BIro>

Fellow & Honorary Members 2020

The following ACB Members were given membership awards during the ACB Annual General meeting held via MS Teams on Thursday 25th June 2020. Congratulations to all!

Honorary Member of the Association

Professor Martin Crook, *nominated by the Southern Region*

Dr Andrew Taylor, *nominated by the Southern Region*

Dr Mick Henderson, *nominated by the Trent, Northern & Yorkshire Region*

Fellow of the Association

Dr Anne Trewick, *nominated by the Southern Region*

Dr Dermot Neely, *nominated by the Trent, Northern & Yorkshire Region* ■

WORLDLAB Seoul 2021 rescheduled

The IFCC Executive Board, in consultation with the Korean Society of Clinical Chemistry and MZ Organising Secretariat, has arrived at the difficult and undesired decision to reschedule the upcoming WORLDLAB Congress to 2022 because of the uncertainties and the revolving scenarios with regards to COVID-19 in the coming months, including major international travel restrictions. The 24th International Congress of Clinical Chemistry and Laboratory Medicine will now be held on 26th-30th June 2022 at the Coex Convention and Exhibition Center in Seoul. More detailed information will be sent directly to Symposia speakers, registered attendees, poster presenters, sponsors and exhibitors by the Organising Secretariat very soon.

The IFCC is pleased to announce a brand new virtual event next year: the IFCC Virtual Conference to be held in February 2021, a completely online scientific conference which will focus on the "Critical Role of Clinical Laboratories in the COVID-19 Pandemic". More information will be circulated shortly. ■

EuroMedLab Munich 2021 rescheduled

The IFCC and EFLM Executive Boards, in consultation with the German Society for Clinical Chemistry and Laboratory Medicine e.V. (DGKL) and MZ Organising Secretariat, have arrived at the difficult and undesired decision to reschedule the upcoming EuroMedLab Congress from May 2021 to November 2021. This choice has been determined by the uncertainties due to COVID-19 in the coming months, including major international travel restrictions.

The 24th IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine along with the National Congress of the German Society of Clinical Chemistry and Laboratory Medicine will now be held on 28th November – 2nd December 2021.

The venue remains the same: the ICM Internationales Congress Center München, Germany.

Please mark this new date in your calendar. We apologise for any inconvenience caused and look forward to seeing you in November. More detailed information will be directly sent by the Organising Secretariat very soon. ■

ACB Membership Awards

2021

Nominations for next year's Awards are invited from Regional Committees, together with a citation of about 500 words, outlining the basis of the nomination.

The Award must be approved by Council at its meeting in March 2021, and it is important that the Regional representative is able to extol the virtues of the nominated individuals.

The three award categories are:

Emeritus Member

Persons who have been Ordinary Members of the Association for at least ten years and have retired from full-time employment and who have made an exceptional contribution to the objects of the Association may, on the recommendation of Council and by a majority of at least two-thirds of those voting at a General Meeting, be elected Emeritus Members of the Association.

Fellow of the Association

Persons who have been Ordinary or Affiliate Members of the Association for at least ten preceding consecutive years and have retired from full-time employment may, on the recommendation of Council and by a majority of at least two-thirds of those voting at a General Meeting, be elected to the category of Fellow of the Association.

The recipients have made a significant contribution to the profession in one or more of the following areas:

- ◆ Continually led and instigated changes to meet the needs of Clinical Biochemistry and Laboratory Medicine services on behalf of a region or nationally.
- ◆ Developed exceptional educational and/or training facilities for the profession.
- ◆ Led in setting up and developing, over a considerable period of time, a well-respected and valued specialised service that had a major impact either within a region or nationally.
- ◆ Raised the profile of the profession over many years, within the lay or clinical community, either regionally or nationally.

Honorary Member

Persons who have made a distinguished contribution to Clinical Biochemistry and Laboratory Medicine at international level may, following the recommendation of Council and by a majority of at least two-thirds of those voting at a General Meeting, be elected Honorary Members of the Association.

If you would like to propose someone then contact your ACB Regional Secretary. Proposals must be supported by the Regional Committee and the nomination submitted through the Regional Committee at the Council meeting in March 2021.

The closing date for nominations received by Council is 1st March 2021. ■

Call for nominations for Secretary at the IFCC Executive Committee of the Scientific Division

The Executive Committee of the Scientific Division (SD) has one position vacant as Secretary, for a three year term of office starting January 2021.

The SD Executive is a management group that has the overall responsibility for all activities within the remit of the SD and manages projects and oversees the activities of a number of Committees and Working Groups. The Executive is responsible for ensuring that all SD groups work at the highest professional level to address agreed objectives. It may terminate an activity or initiate another based on the needs and goals of the IFCC. It is also responsible for revision of SD documents. The goals to which the SD is committed are to:

- ◆ Identify research areas of relevance to Clinical Chemistry and assist the transfer of research results to the profession.
- ◆ Identify scientific and technological problems in current practice and provide solutions.
- ◆ Facilitate the development and transfer

of technical innovations to the clinical laboratory and the practicing clinician.

- ◆ Facilitate the development and implementation of reference measurement procedures and of diagnostic strategies.
- ◆ Establish standards for scientific and technical aspects of good laboratory practice.
- ◆ Respond to scientific and technical needs of IFCC Member Societies, IFCC Corporate Members and external agencies.
- ◆ Participate actively in the scientific program committees of IFCC congresses and scientific meetings.
- ◆ Ensure the quality of IFCC scientific documents.

For further information on this position please visit:

<https://www.ifcc.org/executive-board-and-council/ifcc-call-for-nominations/>

Nominations should be sent directly to the IFCC Office (paola.bramati@ifcc.org) by 10th December 2020. ■

Publication Deadlines

To guarantee publication, please submit your article by the 1st of the preceding month (i.e. 1st January for February 2021 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. ■

ACB Microbiology Annual Scientific and Training Event

Lauren Veal, Trainee Clinical Scientist – Clinical Microbiology, Lancashire Teaching Hospitals NHS Foundation Trust

The 2020 ACB Microbiology Annual Scientific and Training Event was held on the 3rd November. This annually held meeting aims to develop training and education through consideration of professional issues concerning healthcare scientists and to support examination preparation and continuous professional development.

In light of COVID-19, this year's meeting was held virtually for the first time.

Dr Naomi Gadsby (Royal Infirmary of Edinburgh) introduced the meeting and welcomed delegates. The meeting was opened on a positive, highlighting that despite recent measures significantly impacting the delivery of national meetings, the ability to utilise remote access amongst our busy professional lives has arguably made these events more accessible for delegates.

Updates for Trainees

The first session, chaired by Dr Kate Templeton (Royal Infirmary of Edinburgh) focused on the challenges faced by Trainees in the COVID-19 era with an update from the President of The Royal College of Pathologists, Professor Jo Martin. Amid the challenges faced this year, it was excellent to hear that it was possible to provide a number of the autumn FRCPATH examinations through online assessment, supporting Trainees in their career progression during an uncertain time. Additionally, the success of the open access FRCPATH COVID-19 pandemic webinar series as a platform for shared learning and access to CPD opportunities was reflected upon,

with some webinars generating thousands of views!

Professor Berne Ferry, Head of the National School of Healthcare Science, proceeded with an update. 3rd year Trainees completing the STP programme in September 2020 saw the cancellation of the Observed Structured Final Assessment (OSFA) and subsequent replacement with the Independent Assessment of Clinical Competence (IACC). Given the uncertainty that current third-year STP Trainees face and the announcement of the OSFA cancellation for completion in 2021, it was reassuring to learn the success of the IACC in providing an alternative exit assessment which aligned directly with outcomes of the OSFA over recent years.

Professor Brendan Cooper, President of the Academy for Healthcare Science then presented '*COVID, Change and Clinical Scientists: A Vision from the Academy*' and outlined the key role of healthcare scientists in the COVID-19 response. One such way this response has been possible is through the development of the shared temporary register, allowing for the re-purposing and deployment of staff to areas beyond their traditional scope of practice.

The session closed with an insight into the impact of COVID-19 on Microbiology Trainees, delivered by 2nd year STP, Hope Johnson (Royal Devon and Exeter) and 3rd year STP, Laura Atkinson (Great Ormond Street). Training concerns were communicated from the Trainee perspective, which prompted discussions between training programme organisers to consider ways of improving and

supporting Clinical Microbiology Trainees during this unprecedented time. Perhaps most importantly, this session recognised the important role of Trainees in the rapid development and delivery of quality SARS-CoV2 services across the country. Trainees reported the opportunity to take on additional responsibilities, such as SARS-CoV2 assay introduction, as highly valuable experiences in terms of developing professional practice skills that will be carried forward throughout their career progression.

Team Work

The second session of this meeting, chaired by Dr Robert Shorten (Lancashire Teaching Hospitals) highlighted the importance of team work and cross-disciplinary working both within pathology and alongside clinical teams. Dr Sara Jenks (Royal Infirmary of Edinburgh) opened the session and presented '*Pathology Cross Disciplinary working in times of COVID*', the role of POCT in managing the Pathology response to the COVID-19 crisis was of particular focus. Cross disciplinary working in Pathology has never been more

important and remains a key player in the delivery of best patient care. Throughout the COVID-19 pandemic, many Trainees and specialists alike have been redeployed from our day-to-day responsibilities to become heavily involved in supporting the delivery of SARS-CoV2 services.

INHALE Study

This was followed by an interesting presentation from Professor David Livermore (University of East Anglia) who delivered a talk on '*Re-purposing the INHALE study in times of COVID*'. The INHALE study set out to investigate the role of molecular diagnostics in hospital and ventilator associated pneumonia within the critical care setting in order to initiate rapid and appropriate antibiotic treatment to improve patient outcomes whilst maintaining antimicrobial stewardship. Risk of bacterial entry to the lungs is increased with the use of mechanical ventilation; a mainstay of the clinical response for managing critically ill COVID-19 patients. Consequently, the emergence of COVID-19 has resulted in the refocusing of this study to investigate

ACB Microbiology Professional Group annual scientific and training meeting 2020

4 0 0

UEA
University of East Anglia

Re-purposing the INHALE study in times of COVID

DAVID LIVERMORE

Professor of Medical Microbiology,
University of East Anglia, Norwich, UK

This study is funded by the National Institute for Health Research (NIHR) [Programme Grants for Applied Research (RP-PG-0514-20018)]. The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care

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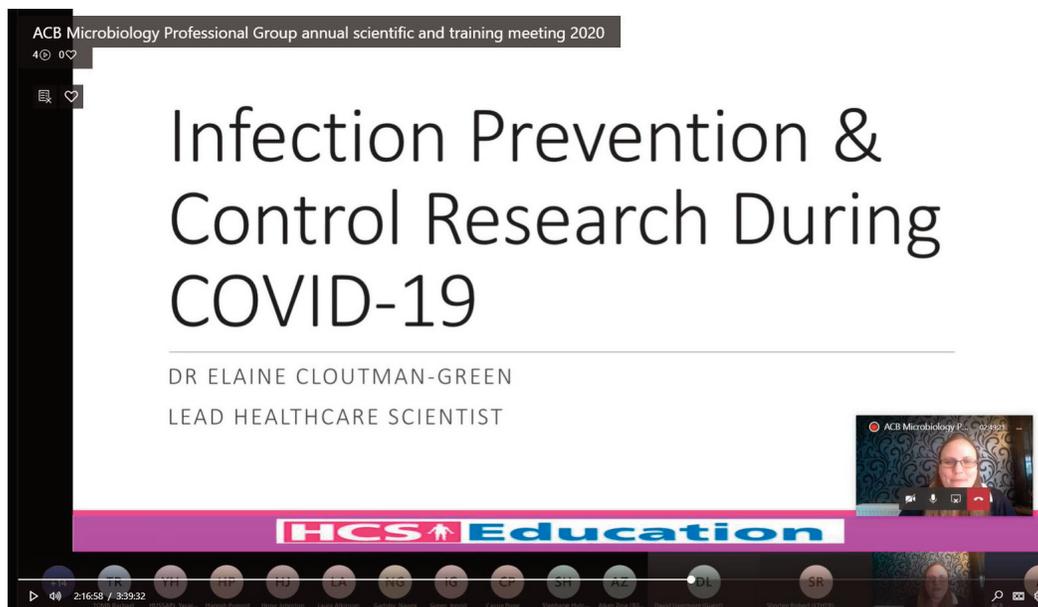
ACB Microbiology Professional Group annual scientific and training meeting 2020

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☰ ♥

Infection Prevention & Control Research During COVID-19

DR ELAINE CLOUTMAN-GREEN
LEAD HEALTHCARE SCIENTIST



HCS Education

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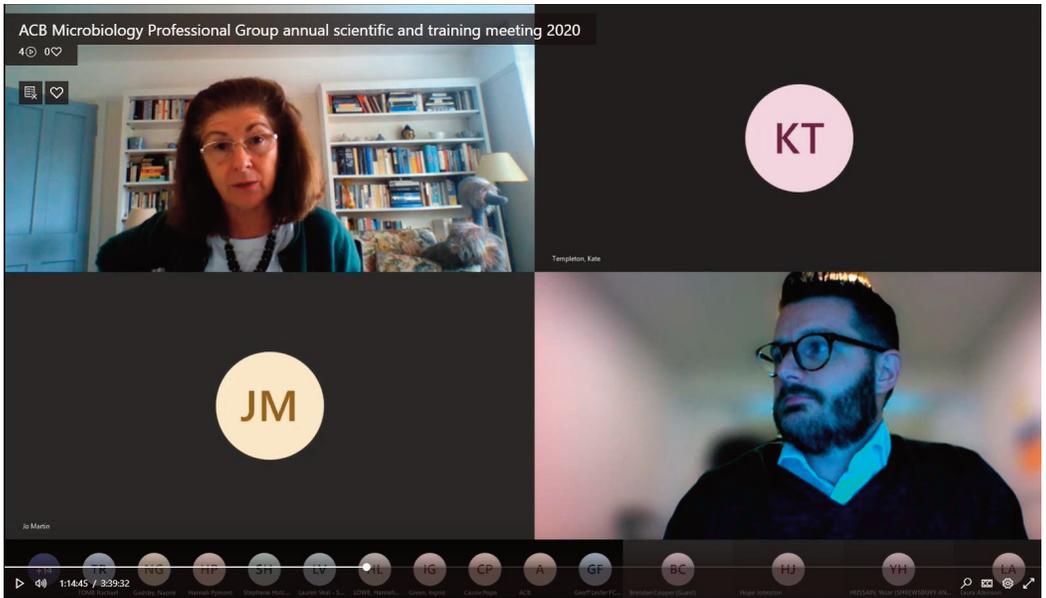
the cause of secondary pneumonias in these patients and whether the application of rapid molecular identification methods assists in treatment guidance and improves outcomes.

Elaine Cloutman-Green (Great Ormond Street) delivered the closing presentation for this session '*Infection Prevention and Control research during COVID-19*' which described a study that provided useful insights into the spread of SARS-CoV2 across hospital surfaces over time. This highlighted the role of surface contamination in virus transmission and the undoubtedly critical role of infection prevention and control measures in the management of SARS-CoV2 outbreaks.

Case Studies

The third and final session of the meeting was chaired by Dr Naomi Gadsby (Royal Infirmary of Edinburgh) and showcased clinical and infection control case studies from ACB Members and Trainees. Dr Rachael Tomb (Glasgow Royal Infirmary) started proceedings with an intriguing case study '*A rare case of*

JC virus associated nephropathy'. The case followed a patient diagnosed with JC virus nephropathy several years after having a renal transplant and provided an opportunity to consider the arguments surrounding routine screening of JC virus post-transplant. Stephanie Hutchings (PHE South West Regional Laboratory) followed this and presented '*HSV resistance in the COVID-19 pandemic*'. HSV reactivation was seen in a hematopoietic stem cell transplant patient despite use of acyclovir prophylaxis. Treatment of a post-transplant HSV-1 positive oral ulcer also showed no resolution following 10 days acyclovir. A mutation of unknown effect was determined through genotypic resistance testing which helped to indicate resistance to acyclovir. However, the re-deployment of resources due to COVID-19 resulted in delays to phenotypic assays which are the gold standard for HSV resistance testing and important in identifying novel HSV mutations. This serves as a poignant reminder of how COVID-19 has affected all aspects of routine working.



Genomic data has already been widely used in the investigation and management of healthcare associated infections such as MRSA and *C.difficile* and was an essential tool in identifying transmission during the Ebola epidemic.

In the concluding presentation of the session, Rebecca Dewar (Royal Infirmary of Edinburgh) presented on the '*Use of SARS-CoV2 genomic data in investigating hospital outbreaks*'. Rebecca described how the use of genomic surveillance using real-time sequencing is now being rapidly applied to the management of SARS-CoV2 and can provide information to

aid infection control.

Overall, the meeting was well received by delegates; the showcased presentations demonstrated the role of Clinical Microbiology in the rapid development of quality, large scale SARS-CoV2 testing services, which should be an area of celebration during an unprecedented and challenging time.

Conclusively, this meeting emphasised that maintaining the multidisciplinary approach and sharing of information will be essential in developing novel methods to effectively manage the response to the COVID-19 pandemic. ■

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 21 from October's ACB News

A person is diagnosed with HCV, genotype 4a. Where in the world is this person likely to be from? (As a bonus, which are the main serotypes commonly associated with the other countries?)

- | | | |
|-------------------------------------|-------------|---------------|
| A. Panama | B. Botswana | C. East Timor |
| D. Democratic Republic of the Congo | E. Japan | F. India |

Answer – D (A-1, B-5, C-1, E-1, F-3)

Question 22

A man returns from Sierra Leone. 4/52 later he presents with fevers and rigors. The most appropriate initial management is?

- A. Send him to a CL4 facility
- B. Take blood for malaria film
- C. Start him on chloroquine
- D. Start him on ribavirin
- E. Manage him expectantly pending report of blood cultures.

The answer to Question 22 will appear in the next issue of ACB News – enjoy! ■

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Conferences are now just a click away



Rachel Wheeler, South West London Pathology,
St George's Hospital, London

Conferences and meetings offer a valuable opportunity to gain new knowledge and hear directly from experts on their subjects. In addition, there are the valuable conversations that happen between and after sessions that provide the opportunity to meet peers and forge new connections and friendships that can shape our careers.

Face to face meetings may feel like a dim and distant memory, but organising committees across the globe have risen to the challenge of re-imagining conferences online. The diversity of formats is testament to their creativity; from pre-recorded talks that can be viewed at a convenient time, to live talks with lively question sessions (requiring a skilled chair to manage not just the usual time considerations but also the whims of live technology). Both the Royal College of Pathologists and the British Society for Immunology ran seminar series earlier this year on COVID-19 related topics. Some organisations have increased their online content, moving to a rolling programme

of talks and webinars e.g. MSACL (Mass Spectrometry and Advances in the Clinical Laboratory [www.msaccl.org]); or creating a permanent resource e.g. UK NEQAS YouTube channel (their short [1-2 min] YouTube videos on EQA and interpretation of NEQAS reports will surely be an invaluable resource for all Trainees. Subscribe now!)

Online meetings do have some benefits: there are no travel or accommodation fees, and it may require less time away from the lab, making it easier to attend. Perhaps online access should remain a permanent part of meetings, to allow access to as wide an audience as possible?

This is a time to embrace these new formats and gain as much from these online opportunities as possible. Next year, the Immunology Professional Committee will be putting together a meeting with the aim of interacting with all our Trainees as well as delivering talks on topical issues for Immunologists. Look out for more details in the new year. ■

ESID 2020 goes virtual

Thomas Wilding, Birmingham Heartlands Hospital

The 19th biennial meeting of the European Society for Immunodeficiencies (ESID) took place on 14th-17th October 2020. Sadly, due to the ongoing COVID-19 pandemic, the host city Birmingham could not be fully showcased. The ESID team adapted to the pandemic to successfully deliver the meeting in an engaging

online format.

The opening 'Educational Day' kickstarted the meeting with a spotlight on fundamental immunology topics such as B- & T-cell biology, gene therapy in primary immune deficiency (PID) and Primary Haemophagocytic Lymphohistiocytosis. Each session was concluded

with interactive case studies and the chance for a live Q&A with expert panel discussion. In addition to these, a new feature for this year's meeting was a 'Conversation with Legends' session. Dr Helen Chapel and Dr Wilhelm Friedrich gave a fascinating overview of the history of clinical immunology and the key developments in both fundamental immunology and patient care they had seen and contributed to through their careers.

Over the following three days there were more than 60 sessions and 300 posters available to attend, including some hot topical themes such as COVID-19 in PID, newborn screening for severe combined immune deficiency and emerging genetics in PID. The sessions remained interactive despite the online format, and it was notable that Q&A time at the conclusion of talks experienced exceptional engagement from the audience. A point highlighted in a lively debate session on whether HSCT should be considered for adults with complex PID,

presented as a series of case studies.

Another highlight of the conference were the series of 'Meet the Expert' plenary sessions on Friday. These brought together cross-specialty topics such as liver and skin disease in PID, a reminder of the importance of a multi-disciplinary approach in the management of patients.

To enhance the conference experience of ESID Juniors, online networking events provided an opportunity for discussion and collaboration. Spread over two evenings with general themes such as 'Laboratory tools for diagnosing PID', 'Crossing Borders', 'Using genetics in clinical practice' and 'New discoveries in Immunology,' the sessions were well attended by Junior members from across the globe and it was great to share ideas and feedback from areas around the world.

Whilst 2020 hasn't turned out how anyone would have expected, ESID 2020 was a real success for the immunology community. ■

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Managing our finances in a pandemic

Dr Mike Bosomworth, Director of Finance

The whole country and countless businesses are feeling the brunt of trying to live and do business in the throes of a pandemic. Whilst I appreciate that all of you will have been affected by COVID-19, it has also placed immense strain on the ACB Office during a time in which we have been restructuring and installing new hardware and software systems.

So I would firstly like to thank Jane Pritchard (Chief Executive), Christina Petzsy (PA to CEO), Mike Lester (Membership Manager), Christine Hall-Shelton (Membership Assistant), Cheryl Taylor (Operations Manager), Eleanor Dalzell (Operations Assistant), Dragana Landup-Horgan (Publications Administrator) and Sakina Williams (Office Administrator) for not only maintaining the service, but also taking the ACB Office successfully through a period of rapid modernisation, in extremely challenging circumstances.

So the ACB like you, our Members, is going through very difficult times and I thought you would appreciate a little insight into how we've had to adapt our operations and ways of working to minimise the impact on our finances.

Our main income sources, like the majority of professional bodies, are membership fees, publications and meetings and events.

As you might expect our membership numbers have not really been adversely affected as members employment is relatively secure and you are, of course, absolutely critical to patient care at this time. However, we have been conscious to keep delivering value to you despite not

being able to convene face to face meetings.

Our planned investment in the website went ahead and whilst this has put a dent in the finances we are already seeing the benefits through increases in membership applications, with 140% increase in October over the same time last year.

We've also completed a long overdue upgrade on IT infrastructure and software which has enabled us to develop our digital communications such as our regular COVID-19 newsletter as well as take ACB News to an online edition.

As you'd expect our meetings income is significantly down and we have suffered cancellation charges for Focus 2020, but we hope to bounce back from this in 2021 with virtual FiLM and Focus events.

We've had great success with virtual committee meetings, training days and workshops. To support this we developed a new pricing strategy for virtual events. Whilst virtual meetings do not incur costs of event hire, catering and travel these are only a small part of any event. There is a real cost to the resource for planning, training, marketing, delegate registration and running online meetings.

Publications income has suffered too, with a slight fall in *Annals* income, a drop in advertising sales in *ACB News* and of course our investments have not performed as well as they usually do.

We have tried to maintain membership services and represent and promote the profession in what have been challenging times. In addition, we have continued member benefits such as ACB Extras, which has adapted its offerings to the

The screenshot shows the ACB website interface. At the top left is the ACB logo and the text 'The Association for Clinical Biochemistry and Laboratory Medicine' and 'ACB Extras Additional Benefits of Membership'. On the top right, there are navigation links for 'Special Offers', 'Savings Calculator', 'Help', and 'A-Z', along with a search bar. Below the navigation is a horizontal menu with categories: 'Health & Wellbeing', 'Shopping', 'Insurance', 'Motoring', 'Business', 'Advice', and 'Travel'. The main banner features a grid of partner logos including ODEON, IGUANAS, Emirates, EMPIRE, DISNEYLAND PARIS, SANDALS, CRYSTAL, JOHN LEWIS PARTNERS, and MARRIOTT. Below the banner is a section titled 'The Health & Wellbeing Hub' with the subtitle 'An insightful and useful resource for physical, mental and social wellbeing content' and a 'Visit the hub' button. To the right of this section is a featured article titled '7 Fitness Motivation Tips to Keep You Going' dated November 2020. At the bottom of the screenshot is a promotional banner for the Samsung Galaxy S20, offering a price of £44 per month with a 'USE CODE : PHS20 at checkout to pay £0 upfront*'. The promotion includes 100GB data, unlimited calls and texts, and a price reduction from £799.99 to £9.99 upfront. Small text at the bottom of the promotion provides terms and conditions.

current environment. For example, it has recently offered discounts on film streaming services (Chili.com), digital fitness solutions (MyActive) and stay at home experiences (Virgin Experiences). The ACB Extras savings calculator has been used just under 1,000 times this year with potential average annual savings for ACB Members projected to be £528.43p. ACB Extras offers are updated regularly, for example they are just about to launch savings of 10-24% with Dell computers.

Through all of this change and uncertainty we expect to finish the year on budget as we have been careful to make

savings where we can and not make commitments that put our income at risk. We budgeted a shortfall this year of around £125,000 to allow for the additional investment we have made to get ACB infrastructure upgraded and we now have the tools in place to build for the future.

Thanks to all the members for your continued loyalty and support of ACB. We're looking forward to working with you all next year and I would like to extend my very best wishes to you and your families for Christmas and the New Year. ■

FCS Briefing – October 2020

Michael Cornes & Geoff Lester, FCS representatives

As time goes on and we are moving from the emergency COVID-19 response period during the spring and summer into a period of ‘the new normal’ where we are working under the medium-term impacts there have been some further clarifications on terms and conditions.

Child Care

There has been an update to the COVID-19 FAQs on the NHS Employers website relating to childcare.

They cover the following situations as a result of children returning to school:

What do we pay staff whose children are unable to attend school, nursery or childcare as a result of closures, or because they have been sent home to self-isolate, or have COVID-19 symptoms?

a. Where a child has a suspected case or confirmed case of COVID-19 and there is a government requirement for the employee to self-isolate

b. Where a child is sent home due to a COVID-19 case in their bubble and there is no government requirement for the employee to self-isolate.

Tax Relief for (enforced) home working

If you are required to work from home (for any reason, but very apposite to the COVID-19 situation) HMRC have simplified

the process for applying for a modest amount of tax relief.

Public Sector Exit Payments Cap

The government has been pushing towards a statutory cap on exit payments (e.g. redundancy or MARS payments) within the public sector since 2015. Although the primary enabling legislation was in the Small Business Enterprise & Employment Act 2015 the enacting secondary regulations had several false starts – things like Brexit got in the way.

The regulations, which apply across the UK, have now been passed by Parliament. Accordingly, the ‘Restriction of Public Sector Exit Payments Regulations 2020’ came into force on 4th November. These will supersede the Agenda for Change Terms & Conditions paragraph 16.8 (England) which contractually caps redundancy payments at £160k.

Members involved in organisational change will need to take the implementation of the cap into account.

Pensions Annual Allowance

For the attention of members who think they may be affected by exceeding the pension contributions annual allowance for 2020-2021, NHS Employers have recently released a ready reckoner and demonstration webinar. ■

CSP Anti-Racism and White Allyship Event

Please join us on Tuesday 8th December 2020 from 10.30-12.30 for an informative and thought-provoking session on Anti-Racism and White Allyship, as a basis for how we, as FCS Representatives can tackle racism in the workplace.

The existence of racism in the workplace is real, due to personally held beliefs linked to societal norms and unconscious bias, historic treatment of BAME individuals and the institutional and systemic issues that disadvantage them. In this webinar, the definition of racism, its historical context, the definition of white privilege and the drive to anti-racism and white allyship will be explored. You'll see a presentation from a CSP member and contributions from BAME colleagues of their own personal experiences, to provide a basis for reflection and further work.

It's imperative, that individuals within the workplace reflect on their own behaviours, beliefs, unconscious biases and white privileges to address issues of racism in all its forms, and that we challenge ourselves and our thinking. We need to be more

than non-racist, this is a passive state that will not create change; we need to move towards being anti-racist and an ally, to start to rebalance equality for those from a BAME background.

The move towards becoming anti-racist is a lifelong journey, and does not start and end with a training session or one act of anti-racism. We would encourage you to consider these issues and encourage those around you and in positions of power to also consider and reflect. We will be revisiting this in a future training session 'Let's Tackle Racism Together' in 2021, where we will focus on the organisational actions we can take in our roles as representatives to address racial inequality in the workplace.

Ahead of the webinar on 8th December 2020 we will distribute pre- and post-webinar activities, which we would encourage you to engage with to support the session and our continued work.

For more information and to confirm your place please contact Emma Lenehan at lenehane@csp.org.uk ■

Deacon's Challenge Revisited

No 11 – Answer

Your on-call laboratory service uses 30 different methods, each of which has a 1% probability of failing QC criteria during the course of a night. Assuming that QC of any method is independent of that of the other methods, what is the probability that on any one night all methods will pass the QC criteria?

MRCPath May 2001

The probability of a channel failing QC is 1% = 0.01

There are only two possible outcomes: pass or fail.

Therefore the probability of a channel passing QC is $1 - 0.01 = 0.99$

This problem is analogous to flipping a coin. The joint probability of two *independent* events is the product of their individual probabilities.

Thus if a coin is tossed once the probability of 'heads' is 0.5. If the coin is tossed again then the probability of it landing 'heads' on *both* occasions is $0.5 \times 0.5 = 0.25$. Similarly, if the probability of one channel passing QC is 0.99, then the probability of two channels passing is $0.99 \times 0.99 = 0.98$. The chance of three different channels passing is given by $0.99 \times 0.99 \times 0.99 = 0.97$ i.e. $(0.99)^3$. The general rule is:

Probability of event occurring on n occasions = (probability of event occurring on a single occasion)ⁿ

Therefore the probability of 30 channels passing QC = $(0.99)^{30} = 0.74$

If your calculator does not have the facility to calculate x^y then the result can be easily calculated using logs:

$$\begin{aligned} \text{Log}_{10} (\text{probability of 30 channels passing}) &= 30 \times \text{Log}_{10} 0.99 \\ &= 30 \times 0.00436 = -0.131 \\ \text{Probability of 30 channels passing} &= \text{antilog} (-0.131) = 0.74 \end{aligned}$$

Question 12

A 0.5 mL sample of urine is extracted into dichloromethane. An aliquot of the extract is analysed by HPLC and found to give an apparent original concentration of 320 nmol/L of analyte Y. 100 µL of Y standard with a concentration of 880 nmol/L is added to a further 0.5 mL sample of the same urine and the sample mixed. 0.5 mL of the mixed sample is then processed as before, giving a measured concentration of 405 nmol/L. Calculate the recovery of analyte Y.

MRCPath May 2001

Interim report on Assessment visit by NPAS Assessors to Santa's Workshop

Mr T. H. E. Grinch and Ms S. P. Oilsport, North Pole Accreditation Service (NPAS) assessors

This interim report is issued in response to the finding of two critical non-conformances, and in cognisance of the imminent arrival of Christmas . . .

In respect of Santa's list:

- a) There was some evidence of a list being made, and of checking it twice, however, there was no evidence of sign-off. Specifically there were no initials and/or dates recorded to verify checks on boys or girls on the list.
- b) In the Naughty/Nice List SOP, criteria for determining classification of boys and girls as 'naughty' or 'nice' were totally inadequate. The procedure merely stated 'find out who's naughty or nice'; detailed criteria must be laid out for different ages, religious beliefs, and nationality. In addition, an individual check-list for every individual child in the world is required.
- c) Complaints from four hundred and twenty-seven children who objected to a 'naughty' classification were not followed up appropriately. All CAPAs for these complaints remain open and they cannot be closed until a proper appeals procedure is put in place.

In respect of employee complaint of alleged discrimination:

Employee 'R' who suffers from Rhinophyma, alleged that this condition caused him to be discriminated against.

- a) The internal investigation did find in agreement with R that the other reindeer "used to laugh and call him names" and that "they wouldn't let poor R join in any reindeer games". This finding was appropriately recorded and published worldwide.
- b) For Remedial Action, although the employee was rostered for sleigh-pulling on one occasion this was quite evidently a last-minute decision based entirely on it being a foggy Christmas Eve.
- c) There was no Corrective Action to show the problem would not recur. A roster of the next three to four Christmases showing that all reindeer were given their fair share of sleigh-pulling is the minimum corrective action the assessors require.

In view of all this the NPAS are unable to accredit Santa's workshop for Christmas 2020.

Addendum: It may be possible for Santa to deliver presents this year if each present is labelled "This present has been delivered by an unaccredited Santa" (or equivalent translation). This notice is required even if it causes confusion and/or distress for girls and boys. ■

This report has been prepared by Dr Peadar McGing based on documents he obtained from a confidential source in Santa's North Pole Workshop. Peadar recently retired as Principal Clinical Biochemist in the Mater Hospital in Dublin.

ACB Clinical Biochemistry education session

Dr Thomas Lewis, 2nd Year Clinical Biochemistry STP Trainee

I had the pleasure of attending the first virtual Association for Clinical Biochemistry and Laboratory Medicine education session on Wednesday 14th October.

The event was the first online educational session arranged by the ACB since the beginning of the COVID-19 global pandemic. Due to the annual Focus training event being cancelled as a result of national lockdown restrictions, this event was hosted virtually using Microsoft Teams software. Despite these changes, there was a fantastic response with a recorded attendance of over 170 fellow delegates. This clearly shows the enthusiasm of my fellow Trainees to improve our scientific understanding and the way we interpret clinical cases that can ultimately influence our future practice to benefit our patients.

The event was organised into four distinct topics that covered a variety of experiences we might encounter throughout our careers as Clinical Scientists.

Duty Biochemist Scenarios

The first talk was presented by Dr David Housley and was based on 'Duty Biochemist Scenarios'. For me, cases are always a great way to learn both the pathological basis of disease and to also think about how I would tackle clinical scenarios to add value to the way they are interpreted. Dr Housley was able to cover both of these aspects throughout his talk and discussed cases that ranged from pseudo-hypercalcaemia to hyperparaproteinaemia being detected as a result of undetectable HDL. He was able to provide useful advice about how we

should be thinking as Clinical Scientists when interesting cases are presented to us in order to benefit the way patients are cared for.

Paediatric Biochemistry

Dr Donna Fullerton presented the second talk which was based on 'Paediatric biochemistry for the generalist'. Neonatal biochemistry is always a fascinating discipline to learn about and incorporates a vast array of both metabolic and non-metabolic disorders. Cases can often be complex and difficult to interpret. However, Dr Fullerton's presentation of case studies provided a clear and logical pathway to ensure the appropriate tests are being performed to aid in the interpretation of these interesting cases. Cases that were discussed ranged from hyperammonaemia to very long chain acyl CoA dehydrogenase deficiency (VLCADD).

POCT

The third talk of the afternoon was delivered by Katy Heaney. This presentation took a slight side-step from the more in-depth clinical science that was discussed in the first two talks but was no less valuable or interesting to learn about. Here, we focused on the more practical aspects of our roles in thinking about the 'Challenges and considerations with POCT'. These challenges and considerations ranged from analytical integrity, staff training, ISO accreditation and budgeting. This talk served as a welcome reminder that as Clinical Scientists we must ensure the service we provide is implemented within an appropriate infrastructure that is financially viable, practical and clinically useful.

Toxicology

The final talk of the afternoon was delivered by Dr Nigel Brown who discussed a variety of toxicology case studies. Dr Brown highlighted the complexity of assessing samples for a vast array of drugs and toxins within patient samples, that has been improved with the recent introduction of Liquid chromatography-hybrid quadrupole time-of-flight mass spectrometry (Q-TOF-MS) technology.

Overall this training session was a valuable experience that allowed me to

develop both my scientific understanding and my analytical interpretation of clinical cases. I'm glad to hear that the ACB are currently organising another educational session to take place at the start of next year.

I have been informed that Trainees are welcome to submit suggestions for topics that they would like to see discussed. Planning is underway to make the annual Focus meeting a virtual event which I'm sure will be another success as we continue to effectively adapt our training throughout these uncertain times. ■

Industry Insights: December 2020

Doris-Ann Williams, Chief Executive, BIVDA

Trying to bring you industry news from 2020 in this issue, which is neither trite or clichéd, we've all lived through it both personally and professionally and no-one will be unaffected in some way.

For the diagnostic industry 2020 has had highs and lows. It was disheartening to have the Secretary of State publicly declare in late March that there isn't a diagnostic industry in the UK. Of course, that just showed the lack of knowledge and awareness of our sector's products and how we work in partnership with our professional colleagues. It also betrays the long history of innovation in diagnostic testing which we have achieved, again working alongside scientists in the NHS. The first patent for lateral flow was filed by Unipath in Bedford for a pregnancy test! I am old enough to remember, and was part of, a thriving IVD sector during the 1970s and 1980s. Sadly, many companies such as Amersham International and Wellcome were sold, and much R&D and manufacturing disappeared overseas although there is still a significant base of IVD manufacturing and a lot of great research going on. Maybe the legacy from COVID-19 will be to support and nurture this further. And of course, what Matt Hancock actually meant was we weren't manufacturing the tests needed to detect the coronavirus in the UK at the start of the pandemic.

It has been an upside to have the spotlight on all things testing, although not always positively. The ambition to build mega labs to support mass testing for the public was a huge challenge and hopefully we can find a way forward for utilising this

lab capacity after COVID-19 without affecting the role that NHS Pathology plays.

Manufacturing companies are now being supported by a coalition which will enable UK production of the different COVID-19 tests and technologies. A significant example is the planned production of antigen lateral flow tests (LFT) at huge scale which should have started initial production by the time you are reading this. The goal is to achieve enough LFTs for the whole UK population to use routinely by February.

The other immediate challenge for the sector is ensuring continuity of supply after 1st January when we finally leave the EU Customs Union (except for Northern Ireland). Following on from that, to focus on regulation and ensuring that having a separate regulatory system from the EU will not be a hindrance but that there will be mutual recognition. From 1st January 2021 until 30th June 2023 you can still purchase IVDs CE marked to the IVD Directive (2003) in the UK – assuming that the test is still being made after the transition in the EU to the IVD Regulation, which comes into force on the 26th May 2022. (Some tests may be discontinued by manufacturers as uneconomical to produce due to the changes required).

Finally, the BIVDA Expo planned for the second week of November – it was incredibly disappointing to have to take the decision to postpone this but very much hope to bring good news in the near future about a Spring Expo!

Wishing all *ACB News* readers a peaceful Christmas and New Year. I hope that you can relax with close family and celebrate appropriately! ■

ACB News Crossword

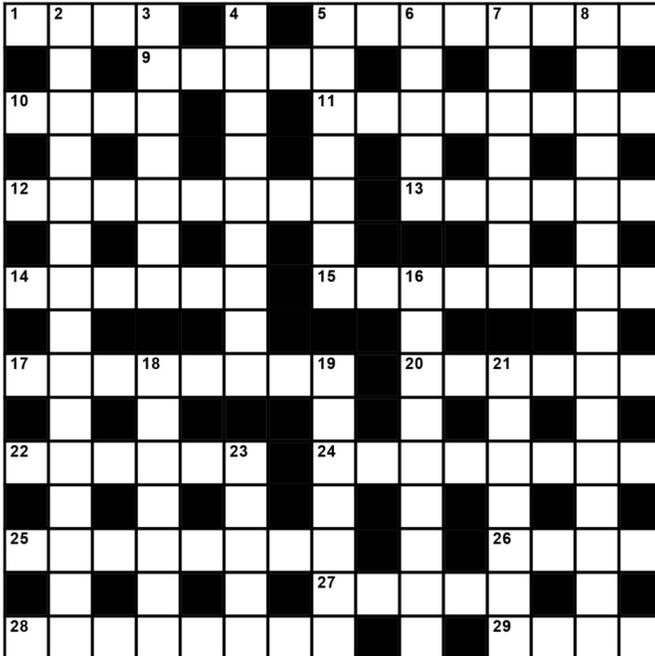
Set by Rugosa

Across

- 1 Send vessel (4)
- 5 Measure of peak shapes in new ski tours (8)
- 9 French friend of LSD, for example (5)
- 10 Place spy (4)
- 11 Is it socially acceptable getting upset about butter for Italian dessert? (8)
- 12 Bad rate rise could increase their tension (8)
- 13 Light devices that may be used surgically (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 stone constituent (4,4)
- 20 Let in first cut-price smorgasbord customer (6)
- 22 Sort out success straight away (6)
- 24 Questionably assign gold distribution (8)
- 25 NICE holds review into an addictive substance (8)
- 26 Setback in haemodialysis (4)
- 27 Teen nuisances admit boredom (5)
- 28 Charge backed about worthiness for retired professional's title (8)
- 29 Not a single religious person, we hear (4)

Down

- 2 Hid my prehistory about reason for weight loss (15)
- 3 Pet seabird, for example (7)
- 4 Bitter violent civil riot (9)
- 5 Used kiss to note condition with diagnostic odour (7)
- 6 Pastoral artist follows right turn before left (5)
- 7 Unconscious assimilation of ideas, some of great cosmos issues (7)
- 8 Orchestral arrangement – could bad tinnitus mar tone? (15)
- 16 Castigating unreliable plastic surgeon as ops cancelled (9)
- 18 Not in favour of trip outline (7)
- 19 Without strontium, structure regressed by a little at a time (7)
- 21 Endocrine deficiency treatment results in us returning pupil home (7)
- 23 Tipsy wine taster discarded eaten joint (5)



Solution for October Crossword

