

# VOLUME 26:1 April 2015



# BAC British Association for Cytopathology

# **BAC Executive Committee**

### President



Pathology Department, Monklands Hospital, Monkscourt Avenue, Airdrie.

ML6 0JS Tel: 01236 712087 Email:allan.wilson@lanarkshire.scot.nhs.uk

Chair



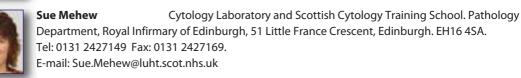
Dept of Pathology, Queen Elizabeth Hospital, Gateshead, Tyne and Wear.

NE9 6SX Tel: 0191 445 6551 Email: paul.cross@ghnt.nhs.uk

Mr Allan Wilson

**Dr Paul Cross** 

### **General Secretary**







Kay EllisABMSP/Cytology Manager, Cytology Department, Floor E, Royal HallamshireHospital, Glossop Road, Sheffield S10 2JFTel: 01142 713697 Fax: 01142 261213.Email:kay.ellis@sth.nhs.uk



Helen BurrellConsultant Biomedical Scientist & Manager South West Regional CytologyTraining Centre, Lime Walk Building, Southmead Hospital, Bristol BS10 5NBTel: 0117 323 5649Email: Helen.Burrell@nbt.nhs.uk



**Dr Ashish Chandra** Consultant Pathologist, Cellular Pathology, 2nd floor North wing, St. Thomas' Hospital, London SE1 7EH Tel: 0207 188 2946 Email: Ashish.Chandra@gstt.nhs.uk



Alison Cropper Cytology Department, 5th Floor, Derby Hospitals NHS Foundation Trust, Derby City General Hospital, Uttoxeter Road, Derby DE22 3NE Tel: 01332 789327 Email: Alison.Cropper@derbyhospitals.nhs.uk



Jenny DaviesManchester Cytology Training Centre, Cytology Department, P.O. Box 208,Manchester Royal Infirmary, Oxford Road, Manchester M13 9WWTel: 0161 276 5114Email: jenny.davies@cmft.nhs.uk



Claire GearyCytology Department, Cambridge University Hospitals NHS FoundationTrust, West Anglia Pathology Services, Westbrooke House, 3 The Oaks, Fordham Road, Newmarket,Suffolk, CB8 7XNTel: 01638 569187 I Ext: 59627 I Mobile 07718120414 |Email: claire.geary@addenbrookes.nhs.uk



Dept of Pathology, Royal Liverpool University Hospital, Prescot Street, Liverpool L7 8XP Email: Thomas.giles@rlbuht.nhs.uk



Jackie JamisonCytology Department, Antrim Area Hospital, County Antrim BT41 2RL.Tel: 02894 424101Email: jackie.jamison@northerntrust.hscni.net



Department of Pathology, Medical School Building, Foresterhill, Aberdeen.

AB25 2ZD Tel: 01224 553794 Email: louise.smart@nhs.net

Dr Louise Smart

# **Editorial** The big question for 2015

# **Andrew Evered**

The big question for UK cervical cytology in 2015 is whether a decision will be made about replacing cervical cytology with HPV primary screening. In his President's Piece, Allan Wilson hints that we might have an answer by June. It is an exciting but also a scary time for all those who have dedicated so much of their professional lives to the discipline. With his glass always half full, Allan sends a very upbeat message to us all – if and when "HPV first" is implemented, cytology will continue to play a vital role in the care pathway for patients with neoplastic disorders.

What is it about the act of looking at cells that makes everyone, including non-cytologists, believe that cytology will survive the onslaught of modern technology? For me, the answer comes from an unlikely source. In 1908, the great English physicist Ernest Rutherford was trying to develop a technique for detecting alpha particles (tiny subatomic particles emitted by some radioactive materials), which are too small to be seen through a microscope. The analogy with cytology is that the human papillomavirus is also too small to be viewed by conventional light microscopy. In collaboration with another famous physicist, Hans Geiger, he built a device that could count alpha particles on the basis of their ability to ionize air and trigger an electrical signal. The device later became known as the Geiger counter, which, to continue the analogy, is perhaps the equivalent of modern day HPV testing devices. But Rutherford was disappointed with the Geiger counter because it produced too many erratic readings; what he wanted was a way of visually detecting the alpha particles. Although the Geiger counter ultimately became a valuable tool for measuring radiation, Rutherford and Geiger abandoned it in favour of a form of fluorescence microscopy, in which they could visually detect alpha particles as they struck a fluorescent screen. Interestingly, and analogous to current practice in cervical cytology, Rutherford and Geiger limited themselves to periods of microscopy not exceeding 20 minutes, for fear of visual fatigue leading to misses and false alarms. Although I am not for one moment implying that HPV testing devices produce erratic readings, there is something deeply satisfying about visually observing the intended target, whether these are the alpha particles of physicists or the abnormal cells of cytologists.



Elsewhere in this issue of SCAN you will find lively debate and discussion on a wide range of issues relevant to cytologists the world over. As always I am deeply grateful to all the contributors, who devote so much of their valuable time to write for our unique publication.

It would be remiss of me not to say a fond farewell to Jenny Davies, who retired at the end of January following a long and industrious career dedicated to the art and science of cytology. As manager of Manchester Cytology Training Centre for as long as I can remember, Jenny will be remembered for her strong contribution to cytology education and training and also for her work as the CEC editor for SCAN. Live long and prosper, Jen.

Andrew

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### INFORMATION FOR CONTRIBUTORS

Articles for inclusion in SCAN can be emailed to the editor if less than 1MB in size or supplied on CD/DVD or memory stick. Text should be in a standard text format such as a Word document or Rich Text Format (rtf file). Please supply images as separate files in tiff or high quality jpeg files at a resolution of not less than 300 dpi (600 dpi if the image includes text). 35mm slides and other hard copy can be supplied for scanning if no electronic version is available. Graphs are acceptable in Excel format.

If you are unable to supply files in the above formats or would like advice on preparing your files, please contact Robin Roberts-Gant on 01865 222746 or email: robin.roberts-gant@ndcls.ox.ac.uk

# **B A C** British Association for Cytopathology

# **President's piece**

# **Allan Wilson**



It is with great pride that I write my first president's piece for SCAN. I really enjoyed my term as Chair of the BAC and am still feeling my way a little as to how my role will change as President. Paul and I have worked closely together to ensure a smooth transition and that nothing was missed in the handover. I apologise in advance for the subject of the first few paragraphs of my first presidents piece; I know Modernising Scientific Careers (MSC) is not something that stimulates much enthusiasm from most BAC members and I can almost hear the "here he goes again". However, I was moved to focus on MSC after attending a meeting in Birmingham in January with trainees who are the product of the MSC project.

MSC has introduced the concept of clinical scientists in cytology. I attended a meeting recently to discuss potential roles for clinical scientists in cytology and histopathology. It is clear that some of the roles that were previously considered suitable for clinical scientists have now been occupied by biomedical scientists. This trend is largely due to the close working relationship between BAC, IBMS and RCPath. Cross representation between the executive committees of the three professional bodies has reaped huge benefits for biomedical scientists in cytology. Progress has on occasion been slow but it is worth comparing the situation in pathology in other countries. The agreement that biomedical scientists in the UK can currently report abnormal gynaecological cytology and will soon be able to report non-gynaecological cytology and histopathology is viewed with more than a little suspicion by pathologist's professional bodies outside the UK. The College should rightly be praised for the brave decisions they have made. The considerable advances in biomedical scientist roles that have been made in the last 15 years in the UK are the envy of cytotechnologists in many countries and although this progress has raised expectations of further progress we should not lose sight of the major advances we have made which have not been mirrored in other countries.

While the extension of biomedical scientist roles is positive for cytopathology and the quality of the service we provide, the roles of the Scientific Training Programme (STP) graduates in cytology is less clear. Despite strong professional advice to both the Academy and School of Healthcare Science on the potential lack of future roles, especially in gynae cytology, there are now trainees emerging from this programme with no clear employment opportunities. This is a scandalous waste of public money and deeply disappointing and frustrating for the trainees. The curriculum, choice of training laboratory and laboratory based training for the STP trainees needs to be urgently reviewed. The NHS cannot continue to place trainees in cellular pathology laboratories without clear agreement from professional bodies as to the role of successful trainees.

To further muddy the water around roles and titles in cytology, we now have Advanced Practitioners who recently successfully completed a portfolio and viva assessment and have been awarded certificates of equivalence by the Academy of Healthcare Sciences (AHCS). The successful applicants can now register as clinical scientists.

Finally on the subject of MSC, the lack of a cellular pathology Higher Specialist Scientific Training (HSST) programme was roundly condemned by the trainees present at the meeting. The lack of HSST in cellular pathology has been raised many times over the years but I am still unclear as to why this programme cannot be developed. Below is a list of existing HSST programmes; if they can be developed in these areas why not histopathology and cytopathology?

Analytical Toxicology Histocompability and Immunogenetics Molecular pathology of Infection Clinical Biochemistry Genetics Reproductive Science Clinical Immunology Microbiology Virology Haematology Molecular pathology of Acquired Disease

June 2015 may present two important milestones in the evolution of cytopathology in the UK. It is possible that an announcement on HPV testing in the programme in England will be made. This is a long awaited announcement which will be based on data from the HPV primary pilot sites. The expectation is that screening by HPV testing with cytology triage will be approved. Cytology professionals have already started to prepare for an "HPV first" programme. One of the main barriers to HPV first in England is the IT systems currently used. Years of under-investment has left the programme with an IT infrastructure that will struggle to accommodate the move to HPV. The plan for HPV first must include significant investment in IT. Norway has become the latest country to start HPV primary screening. From 1st February, half of Norwegian women between the age of 34 and 69 will be tested for HPV rather than cytology.

The other event in June is the first sitting of the IBMS Advanced Specialist Diploma in non-gynaecological cytology. Successful candidates are permitted to report abnormal serous fluids, urines and respiratory specimens. It is difficult not to link the two events, the perceived move towards HPV first has triggered a focus on non-gynae training in many areas and all remaining cytology training centres are now offering a range of training courses aimed at developing biomedical scientist roles in non-gynae. The move towards HPV first and the opportunities now opening up for biomedical scientists and cytology screeners in non-gynae cytology provides an opportunity for staff to broaden their repertoire in preparation for the radical changes that are facing cervical cytology.

By the time this edition of SCAN arrives on your door step, I will have returned from a visit to New Zealand to deliver lectures and workshops on rapid on site evaluation (ROSE) at

# **Chairman's Column**

FNA clinics. Maggie Morgan and Viv Beavers are also on the team for the trip. This is further recognition of the high quality of cytology, gynae and non-gynae, within the UK. I look forward to reporting on our trip in the next edition of SCAN.

Finally, planning is well underway for the EFCS congress in Liverpool in 2016. Paul Cross and the organising committee have been meeting regularly with the Professional Conference Organisers (PCO) and significant progress has been made towards what will be the main event for cytology professionals in 2016. Liverpool will be a magnificent host city and I hope BAC members are already exploring funding options to attend and considering what they can present at this showcase for UK cytology.

# Paul Cross

It is with great pride and not a little trepidation that I start my term as BAC Chairman. I have a hard act to follow, and must give my enormous thanks to Allan (as previous Chairman and now President) and Karin (as retiring President) for all their hard work and sound advice. The BAC is now just over 3 years old and has, like all new organisations, taken a while to become effective and also to be accepted both by our members and the world at large. The BAC Executive has had several changes since its inception, and I am immensely grateful to all those Executive members, past and present, for their hard work and invaluable input. It must not be forgotten that all the Executive team undertake their BAC roles on top of their busy day jobs, and the fact that we have achieved so much in the last three years is a great testament to everyone's hard work and dedication. It is also gratifying to note that we have been able to recruit new enthusiastic BAC members to the Executive. All teams need new blood and refreshing, and this bodes well for the BAC in the future.

The challenges ahead of us for cytology are not to be underestimated. We are all aware of the dramatic changes within the Cervical Screening Programmes nationally, and that with laboratory mergers, HPV reflex (and no doubt soon to be primary) screening, that cervical cytology workloads have and are falling. The numbers of staff involved in cervical screening are also falling, and those that remain are facing changes in what their role will be in the future. Many of our colleagues have left or given up cervical cytology, and those that remain are in many cases having to develop or re-acquire other cellular pathology skills, and not always in cytology.

At the same time the uncertainty around future professional training and development, especially amongst BMS staff, has not helped, and the lack of cytology featuring partly or at all in some of these national discussions is bewildering to many of us. As a society and members we must ensure that our discipline of cytology in all it guises is seen and its voice heard. As a society we are doing this both openly, and also behind the scenes. The pace of change and how to affect it is difficult to do, but we will only do so if we can work together. One of the raison d'etres for the formation of the BAC from the previous BSCC and NAC is to have a single professional voice for cytology. We must continue to build on this in the future.



The BAC as a society is also about promoting cytology as a science, and the many meetings that we have organised over the last few years, and are continuing to organise, show the need and desire for high quality cytology educational meetings. We have two more organised for this year, and are also working hard to host the highly prestigious European Congress of Cytology meeting in 2016. This latter international meeting will also us to showcase the "Best of British" but also to learn from Europe and beyond. It may sound a long way off, but it is not, as those on the executive involved with organising it will testify to!

This edition of SCAN, as always, has a wide range of informative and educational material. It relies on BAC members for its content so if you feel an article within you that you would like to share then do so, and let the editors know!

The BAC has as its aims to encourage the science and art of Cytopathology by encouraging higher standards in Cytopathology for the benefit of the public and to encourage research in Cytopathology and related fields and the publication of useful results. We need your help as members to achieve this. Encourage colleagues who may not be members to join and make sure we, as a society, represent cytology across the whole UK at all levels and aspects. Help us to deliver our aims, and ensure that, in the years to come, cytology can flourish.

# **BAC Annual Scientific Meeting 2014**

# **Helen Burrell**

This year's annual scientific meeting for the British Association for Cytopathology (BAC) took place from the 9-11 October 2014 in Birmingham. The venue was the Crowne Plaza Hotel, which offered excellent conference facilities and also gave delegates the opportunity to stay at the hotel and avoid having to endure any potential wet English weather! The conference attracted approximately 200 delegates from the UK and overseas.

A great start as always to the conference was the opening of the all important Trade Show, this year performed by the IBMS President Mr Nick Kirk.



It was an opportunity for colleagues and old friends to catch up over drinks and canapés, whilst browsing the commercial trade stands and of course picking up a few pens and pencils along the way!

Saturday morning was busy with the arrival of yet more delegates for the start of the first full day of the scientific programme. Dr Karin Denton gave her final President's address, outlining her thoughts on the future of cytology, with reference to HPV, cervical cytology and also the growing enthusiasm and repertoire in non-gynae cytology. The Society also showed its appreciation for the ongoing support of the Trade by providing an opportunity for a representative from all sponsoring companies to give a short summary to delegates about their products and invite us to visit their stands.

The scientific lectures then ensued over the next two days, providing a variety of informative and interesting lectures for the delegates, covering both gynae and non-gynae topics. Current issues in cervical cytology featured highly in the programme, including data on test of cure outcomes, trials and tribulations of implementing HPV primary screening, vaccination uptake and the resulting drop in rates of CIN already seen in Scotland. The potential benefits of using molecular markers to improve sensitivity and specificity for detection of high grade CIN was also covered. Screening pitfalls leading to missed cervical cancers, and the potential medico-legal issues that could follow were highlighted, giving us a stark reminder of the challenges we face in cytology. Future career developments for BMS staff taking on cervical histology reporting and the importance of correct diagnoses of some gynaecological cancers in order to ensure correct treatments were discussed.

Non-gynae cytology is thriving and gaining pace, with increased use of EBUS for detecting cancers in the mediastinal area, and rapid on-site evaluation of cytology samples in many centres. Ways to increase sensitivity of sampling with FNA by improving cell yield and ensuring that samples are adequate for diagnosis were discussed. The potential for anal cancer screening using a combination of cytology, HPV testing and imaging is also an area gaining interest but is limited at present by a limitations of treatment options.

The annual Ericha Wachtel lecture saw the welcome return of Dr Christine Waddell, recently retired Director of the Birmingham Cytology Training Centre, who gave an entertaining look back at her years in cytology and was presented with her commemorative medal by Dr Denton.



The society dinner saw cytology staff transformed into a smart and sparkly bunch, where we enjoyed a three course meal followed by entertainment from local comedian Malcolm Stent and delegates then danced the night away at the after dinner disco.

A thoroughly enjoyable evening was had by all.

Several awards and prizes were received by speakers and delegates as the conference came to a close on Saturday afternoon. Roisin McKenna and Liz Chapman were the winners of the gynae and non-gynae quizzes, and Sarah Brady was awarded best poster prize. Rajvinder Dhillon and Dr Dona Kurrupu were awarded the prizes for the best gynae and non-gynae proffered papers. The Brighton Award, a new award and a fitting tribute created in memory of Russell Smith and Alison Baker, was awarded to Dr Kurrupu for the best overall proffered paper presentation.

Replacing Dr Karin Denton as the new president of the BAC for the next 3 years is Mr Allan Wilson, who presented Dr Denton with a token of appreciation for all her years' work on the BAC and previously the BSCC.

I look forward to the next annual BAC meeting, which will be a one day meeting in held in Liverpool on October 16th 2015.

For further details about this and other meetings, please visit the BAC website at www.britishcytology.org.uk



# An Update on Career Framework Levels 2–4 Apprenticeship Standards

# **Jenny Davies**

Draft CF2-4 Apprenticeship standards have been sent out for consultation, albeit in a very short time frame; comments were invited with a deadline of 12th January 2015, having only been sent out at the end of December. There is a lot of work going on in the background at a rather fast pace and it is difficult to keep up to speed with the developments.

To quote the opening paragraph of the apprenticeship standards: "The Healthcare Science (HCS) workforce plays an important role in supporting safe and effective patient care across all pathways of care from conception through to end of life. The HCS workforce includes over 45 scientific specialisms within the fields of Life Sciences, Physiological Sciences, Medical Physics and Clinical Engineering. Within the HCS scientific specialisms, the roles of HCS Assistant, Assistant Practitioner and Associate cover a wide variety of job titles and working contexts, which have been developed by employers to meet individual service need". With a view to satisfying the appropriate training requirements, the standards have been produced in discussion with the Department for Business Innovation & Skills (BIS), and present a high level description of each CF occupation - Assistant (CF-2), Assistant Practitioner (CF-3) and Associate (CF-4). Shirley Fletcher, who is leading the project, is planning to have the Apprenticeship standard approved through the Trailblazer projects and these should be with BIS early in February 2015. Consultation on these standards is also being undertaken directly with employers and governance groups for the Modernising Scientific Careers (MSC) CF 2-4 Project. She is also currently working on the supporting assessment strategy and model with the National School for Healthcare Science and the development of CF4 curriculum and modular content with the Foundation Degree Development Group. Draft learning guides at each level with module documents containing detailed information are also being produced. The core modules and Personal, Cognitive and Professional Skills Framework (as mandatory components) have been developed by the group.

## **Useful Links:**

- http://www.councilofhealthcarescience.ac.uk/
- http://www.nhsemployers.org/your-workforce/plan/healthcare-science-workforce/healthcare-scienceeducation-and-training/healthcare-science-assistant-and-associate-workforce
- http://www.ahcs.ac.uk/
- http://www.nshcs.org.uk/

Interesting reading may be found on the following website, which is a response to the consultation process by IPEM (Institute of Physics and Engineering in Medicine)

http://www.ipem.ac.uk/Portals/0/Documents/Consultations/2015/Response%20to%20CF24%20Healthcare% 20Science%20Apprentices%20standards.pdf

# Nearly there...BAC Code of Practice for Cervical Cytology Laboratories Louise Smart

In the previous issue of SCAN, we reported that the BAC was revising the BSCC Code of Practice for Cervical Cytology Laboratories and that we hoped to launch this as the BAC Code of Practice (CoP) at the BAC Scientific Meeting held last October. As well as sections on staffing, workload, sample handling and reporting, quality assurance and education and training, this revised CoP includes updated and expanded sections on IT, multidisciplinary team working and laboratory aspects of HPV testing. Unfortunately the revision has taken longer than anticipated but the draft CoP is now complete and has been circulated for comments. It is available for review

on the BAC website (http://www.britishcytology.org.uk/). We welcome input from you as BAC members, and there is still time left for you to submit comments if you wish and have not already done so. Please e-mail the BAC with your views to mail@britishcytology.org.uk, heading your e-mail "BAC CoP". Once the consultation process is complete and comments considered, the CoP will be published on the BAC website and launched at the 2015 BAC Scientific meeting in Liverpool in October. Thereafter it is intended that the CoP will be dynamic document, updated annually to reflect new guidance and future changes in cytology laboratory practice.

# Report from the 83rd Scottish Association for Clinical Cytology (SACC) Meeting held in Perth Royal Infirmary on Friday 14th November 2014

# Dr Angheliki Nomikos ST5 in Histopathology, Aberdeen Royal Infirmary

Let me start with an introduction to the Scottish Association for Clinical Cytology (SACC), which was formed in 1972 under the Chairmanship of Dr Helena Hughes. The Association is overseen by a Council comprising a representative from each of the eight laboratories in Scotland and includes a Treasurer, Secretary and Chairman. The Council organizes two scientific meetings per year, in November and May. The Annual General Meeting is held in spring, along with case presentations of slides previously circulated by the SACC. The SACC has no subscription fee and is open to all working in cytology labs in Scotland.

This was my second attendance at the winter meeting and I was much more relaxed as this time round I was not a speaker. Following registration and a good cup of coffee, I looked forward to enjoying the promising programme.

The first speaker of the day, Dr Mufaddal Moonim, Consultant Histopathologist at Guy's & St. Thomas' Hospitals, gave a useful presentation on the cytology of lymphoma, focusing particularly on the potential role of endobronchial ultrasound-guided transbronchial needle aspiration (EBUS-TBNA) in the diagnosis and management of deep seated lymphomas.

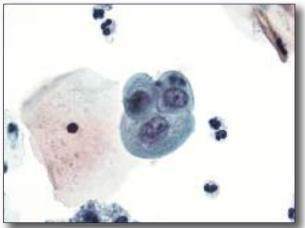
The current management of lymphoma requires accurate diagnosis and subtyping of de novo or relapsed/refractory lymphoma. I sometimes find this challenging enough on sections of entire lymph nodes, let alone EBUS-TBNA specimens. However, there was emphasis on the importance of good samples; methods to improve these include needle size and specimen container used, coupled with experience in obtaining EBUS-TBNA samples. Immunohistochemistry and flow cytometry have also been fundamental in the improvement in the accuracy of lymphoma diagnosis. In a study conducted by Dr Moonim, EBUS-TBNA diagnosis was adequate for clinical management in 84% of cases and was ideally suited to distinguishing lymphoma relapse from alternative pathologies; it was least sensitive in subtyping Hodgkin lymphoma. By the end of the presentation, I felt encouraged that I could do this!

The theme thereafter, except for the last presentation, centered on cervical cytology.

Ms Grazyna Stanczuk presented initial findings of her work on the PaVDaG (Papilloma Virus in Dumfries and Galloway) study, which is still underway, with a target for completion in Spring 2015. The aim of this study is to analytically optimise and clinically validate detection and genotyping of HPV in self collected vaginal and urine samples against clinician collected cervical samples, using specific HPV genotyping. The cost-effectiveness of different screening strategies, along with the infrastructure, human resources and equipment needed will also be evaluated. The ultimate aim is to provide choices to women and increase screening compliance. The initial findings presented looked promising. Following this, Dr Louise Smart, gave feedback of participant performance on the most recent round of the Scottish Cervical Cytology EQA Scheme and presented four interesting educational cases that had been included in the circulation.

A buffet style lunch was then served and, although this is usually the opportunity to view poster presentations, there were no entries this time round. It was nevertheless enjoyable to meet colleagues, exchange experiences and to have further informal discussion with the speakers.

In the afternoon, Dr Timothy Palmer, Clinical Lead of the Cervical Cytology Steering Group in Scotland, having recently retired from the NHS, gave a reflective overview of the changes within cervical cytology in Scotland since the early 80s with a positive outlook on what is expected in the future. One highlight was the introduction of the Scottish Cervical Call Recall System (SCCRS). This multidisciplinary, Scotland wide, paper free IT system was implemented in 2007. It incorporates patient demographics, smear history, cytology results, HPV vaccination, colposcopy findings, histology results, test of cure, HPV results and management with a call-recall system. Indeed, as the title of the presentation stated (Cytology in Scotland-more than just smears!), the presentation was also illustrated by a personal collection of amusing microscopic images, three of which are shown below.

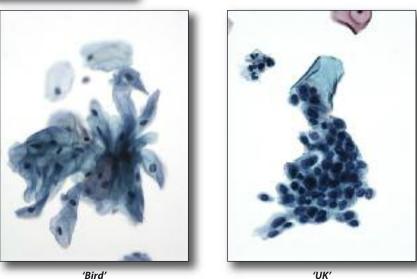


Miss Piggy

The next presentation by Dr Nick Parham (Clinical Specialist, Roche Molecular Systems) entitled Medical Value of HPV Testing in Cervical Screening provided an outline of the ATHENA study. This large multicenter US based study was designed to assess the performance of HPV testing, with 16/18 genotyping, compared to LBC for cervical cancer screening. HPV testing with HPV16/18 type detection as part of routine screening enhanced the ability to identify disease in women with normal cytology results, suggesting such testing could form the basis of a more sensitive and efficient strategy for cervical cancer screening. I was interested to learn that the UK has the greatest sensitivity for cervical cytology compared to other European countries, the US and Canada.

The last presentation, From Airdrie to Africa, by Allan Wilson, BAC president, was a great way to end the day and a treat for staff unable to attend the BAC Annual Scientific Meeting. Even before joining medical school, my wish was to one day be involved in charity work in countries less fortunate than the Western World. I was therefore inspired by Allan Wilson's account of his sponsored travel, first to South Africa and then Kenya, as part of an organised training project. Pathology, like other branches of medicine in Africa, has suffered from economic, political, social, and infrastructural problems. There is limited cervical screening and although LBC is used in parts of South Africa, the training is completely in conventional cytology. It was captivating to hear about the challenges and rewards faced during his trip.

In conclusion, I was pleased to have had the opportunity to attend this meeting with up-to-date, relevant topics incorporating science and microscopy. As a senior registrar undertaking the new curriculum, cervical cytology is an optional modular subject, which I was uncertain whether or not to undertake. This meeting helped me reflect on this, and given the excellent reputation that the UK, including Scotland, has for cervical cytology, I have decided to take the plunge.



# Cytopathology: A new approach

# Mina Desai, Editor-in-Chief, Cytopathology

The following article is reproduced (with minor edits) from the first issue of the journal Cytopathology for 2015, with kind permission of John Wiley & Sons, Inc.

To take on the role of editor of *Cytopathology* was a challenge harder than running with an Olympic torch. My predecessor, Amanda Herbert, has handed over the baton after seven years of dedicated hard work. Under her editorship, the journal has come to be recognized across the world as the premier journal of the cytology community. During her term in office, *Cytopathology* has become essential reading for every practising cytopathologist and cytotechnologist who wishes to keep abreast of new developments in this rapidly developing field. Where to go from there? I see my challenge as maintaining the journal's position and her tradition of innovative leadership.

### My vision for Cytopathology over the next 5 years:

The cytology community in the UK has put a lot of hard work into amalgamating the British Society for Clinical Cytology (BSCC) and National Association of Cytologists (NAC) to form the British Association for Cytopathology (BAC). The BAC is now in its fourth year and this journal is one of its major contributions to the field. My vision is to change the editorial policy of the journal to better reflect the interests of emerging key constituencies in our field: cytopathologists and cytotechnologists alike; clinicians using a cytology service; biological scientists whose work involves research at the cellular level; and finally young medical and non-medical trainees whom we want to draw to the specialty.

Just as the BAC has forged a strong new executive team of cytopathologists and cytotechnologists, I have formed a new editorial board structure consisting of pathologists and technologists working as a team.

I am delighted that, when approached, many pathologists, technologists and clinicians in the UK, Europe and on the global stage have accepted my invitation to come on board, either as editors or as peer reviewers. Together, we have come up with exciting new proposals to change the landscape of the journal to reflect the dynamic evolution of the speciality.

In the first issue of *Cytopathology* this year, a new feature, InCyt, was launched. Aimed at cytotechnologists from across the globe, it is designed to provide a forum for discussion on all aspects of cytology. A second exciting development is the Enigma Portal. This will evolve into an important educational resource for all cytologists, pathologists and cytotechnologists and will provide a rich source of continuing professional development material in gynaecological and non-gynaecological cytology.

Our editors have been proactive from the start, placing an emphasis on digital content and platforms to expand our reach globally, including a mobile app and podcasts from the journal; nevertheless, any digital strategy will mean little without high quality content.

To attract the best papers, we will pursue two main strategies to complement the high-quality original submissions we enjoy. First, we will invite experts to write reviews on cytopathologists' input to clinical and management decisions. Second, we will invite British, European and other global experts to explain standards produced by their professional bodies. It is anticipated that review articles will maintain the previous editorial policy of reflecting and highlighting contemporary developments and advances in all branches of cytology.

I am grateful to the BAC for giving me the opportunity to become your editor. The next five years will require a team effort to achieve our aims. I look forward to receiving your support to maintain the status of this journal as one of the best in the field.

# **BAC Membership Details**

Please email or write to Christian Burt if any of your contact details change.

Email: mail@britishcytology.org.uk

BAC Office, 12 Coldbath Square, London EC1R 5HL

# We seem to have ticked all the right boxes — well most of them anyway!

# A report from the Meetings Sub Committee of the BAC

# Alison Cropper, Chair of the BAC Meetings sub-committee

Feedback from the BAC 2014 conference (9-11th October) has been extremely positive and most encouraging for the organising committee, showing that we met the expectations of delegates on many levels. A post-event evaluation survey was conducted by Doodle Poll and 46 responses were received. The three main reasons quoted for attending the conference were scientific programme, location/timing and the opportunity for networking.

In terms of location and timing a city centre venue in October was chosen in response to feedback from previous years' conferences when timing and venue were criticised by some delegates. The venue itself, the Crowne Plaza Hotel, rated very highly in terms of accessibility and facilities provided and we must have got something right because attendance was up on previous years!

A lot of hard work was put into producing a scientific programme that would appeal to the majority of potential delegates but this seems to have paid off and the programme rated exceptionally highly with most speakers rating excellent or very good, and the breadth of topics covered was complimented by many. The only negative comments about the scientific programme were the lack of time allowed for discussion so this is certainly something that we will allow more time for in future meetings. Please see the article by Helen Burrell elsewhere in this edition for a full report on the conference.

In times when training budgets are a limiting factor for many it was great to see almost 200 delegates and trade representatives in attendance over the two days. I would like to take this opportunity of publicly thanking all the companies who kindly sponsored our conference, and I cannot emphasise enough just how reliant we are on their support, without which we would not be able to provide educational meetings at such an affordable price.

Looking to 2015 we have two educational meetings planned. A flavour of each one is provided below.

# Spring Tutorial, Friday 17th April, Guy's Hospital, London

This popular format combines lectures in the morning with practical microscopy workshops in the afternoon. Lecture topics this year will be focussed on cervical cytology (HPV results and performance statistics — how to interpret them!) and breast pathology (the role of cytology and ancillary testing in the diagnosis of breast cancer). Workshops will include the following choices: review of HPV tested cervical cytology samples; review of invasive cervical cancer audit cases; breast cytology and histology correlation, and; respiratory tract cytology.

The tutorials are always popular events and offer excellent value for money for cytologists of all grades and levels of experience so please ensure you reserve your place without delay — see the BAC website for details and booking form http://www.britishcytology.org.uk/meetings

# BAC scientific meeting, Friday 16th October, Liverpool ACC

Planning is well underway for this event, which will incorporate the AGM, and is being held in the same venue that we have chosen to hold the 2016 European Congress of Cytology (ECC) in — see elsewhere in this edition of SCAN for more details on this fantastic opportunity for the BAC to host an international cytology conference. The venue is the Arena & Convention Centre (ACC) in Liverpool and this day meeting in October will provide an opportunity not only for the local organising committee and professional conference organisers to familiarise themselves with the venue but also for our members and other UK delegates to see what a great venue it is and hopefully give you a taste of what the ECC will provide!

Confirmed topics so far are: updates on HPV screening; does HPV result bias cytology reporting?; HPV — impact on Colposcopy outcomes; details on the new Advanced Specialist Diploma in non-gynaecological cytology and the launch of the newly updated BAC Code of Practice. The full programme and booking details will be announced shortly so please watch out for e-mails and check the website regularly http://www.britishcytology.org.uk/meetings

We hope to see you at one or both of these meetings and also at the **ECC**, **3rd – 5th October 2016**.

9

# Flaws in the design of diagnostic accuracy studies in cytopathology

# **Andrew Evered**

Too many studies investigating the accuracy of new diagnostic tests in cytopathology do not take sufficient account of interpreter variation. Studies that fail to recruit a sufficient number and mix of trained cytologists as observers in studies requiring visual interpretation of test results are unlikely to generalise well. Thus, even when a new test performs well under experimental conditions, it can perform badly when it is rolled out to the wider cytology community. Sadly, evidence for this claim is not difficult to find.

On the premise that it is probably best to cast the first stone in one's own glass house, one of my own published studies failed the test of generalizability. In 2011, Nick Dudding and I reported an experiment comparing the accuracy of virtual (digital) microscopy with conventional glass slide microscopy. While our power calculations suggested that we had recruited a sufficient number of cytologists, the recruits were a highly selected group of virtual microscopy enthusiasts. We proclaimed that the two forms of microscopy were diagnostically equivalent and concluded that it would be feasible to replace glass microscopy with virtual microscopy for cytology education, external quality assurance and even primary diagnosis. We were not the first or the last to make such a claim.<sup>1,2,3</sup> Encouraged by these results I conducted a follow up study, this time recruiting participants who were more representative of the general population of UK cytologists. The results were completely at odds with the previous study. The virtual microscopy arm failed on several levels, including time to diagnosis, perceived image quality, userfriendliness of the technology, focussing capability and, most importantly, diagnostic accuracy. Since these studies were conducted, the College of American Pathologists released guidelines on the conduct and design of virtual microscopy validation studies.4 Quite rightly, the guidelines state the need for a minimum number of cases to ensure statistical validity but, disappointingly, make no mention of the minimum number of observers required. In statistical terms, for the results of a diagnostic accuracy study to generalise to the population of cytologists in addition to the population of cases, a representative and suitably large sample of both is required. The failure to take account of observer variation is an important omission in the CAP guidelines, and in my view is one that will plague virtual microscopy validation studies until the problem is addressed.

Investigations of new immunocytochemical markers are another area where observer variation appears to have been disregarded in study design. On the rare occasions when the size of the observer group is reported in the abstract, the number of cytologists recruited has been too small for the results to be reliable. Whenever human observers constitute part of diagnostic system under investigation, the а recruitment of a suitable number and mix of cytologists is absolutely essential if the results are to have any external validity. One way forward is for editors and reviewers of cytology journals to adopt one of the many available checklists for reporting the results of diagnostic accuracy studies. One such checklist, the "Standards for the Reporting of Diagnostic Accuracy Studies" (STARD), contains a list of 25 items that should be considered when designing and reporting such studies.<sup>5</sup> STARD was developed following a Cochrane Colloquium meeting in Rome in 1999, and arose from a concern about low methodological quality and sub-standard reporting of diagnostic test evaluations. The third item in the checklist makes it clear that study participants (which, in the case of cytology, refers to the cytologists who are recruited as visual interpreters of test results) are a crucial consideration. To the best of my knowledge, only one cytology journal has adopted the STARD checklist.

- Evered A, Dudding N. Accuracy and perceptions of virtual microscopy compared with glass slide microscopy in cervical cytology. *Cytopathology*. 2011;22(2):82–87.
- Krishnamurthy S1, Mathews K, McClure S, Murray M, Gilcrease M, Albarracin C, Spinosa J, Chang B, Ho J, Holt J, Cohen A, Giri D, Garg K, Bassett RL Jr, Liang K. Multi-institutional comparison of whole slide digital imaging and optical microscopy for interpretation of hematoxylin-eosin-stained breast tissue sections. *Arch Pathol Lab Med.* 2013 Dec;**137**(12):1733–9.
- Campbell WS, Hinrichs SH, Lele SM, Baker JJ, Lazenby AJ, Talmon GA, Smith LM, West WW. Whole slide imaging diagnostic concordance with light microscopy for breast needle biopsies. *Hum Pathol.* 2014 Aug;45(8):1713–21.
- Pantanowitz L, Sinard JH, Henricks WH, Fatheree LA, Carter AB, Contis L, *et al.* Validating whole slide imaging for diagnostic purposes in pathology: guideline from the College of American Pathologists Pathology and Laboratory Quality Center. *Arch Pathol Lab Med.* 2013;**137**(12):1710–1722.
- Standards for the Reporting of Diagnostic Accuracy Studies. 2008. Available from: http://www.stard-statement.org/ (accessed 15/12/14)

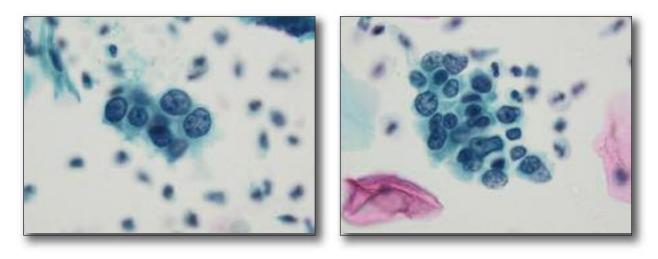
# iCytology

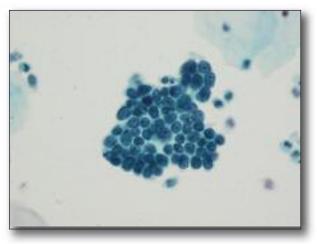
# **Andrew Evered**

Accessorise your mobile phone with the latest optical technology, effortlessly converting it into a high specification microscope camera. You will require the following attachments, all of which are available in most modern cytology laboratories: forefinger and thumb of your left hand and thumb of right hand. Of the three images shown below, only one was taken with a proprietary microscope camera (approximate retail price: £2500). The others were taken with a mobile phone\* (£10 deposit and £25 per month). Can you tell the difference? (\*can also be used as a telephone, stopwatch, alarm clock, torch, calculator, games console, etc etc)

Taking iCytology one step further is the rapidly expanding field of whole slide imaging. It should not be too long before mainstream cytology journals include links to digital slides with published articles. Whole slide imaging will add a completely new dimension to knowledge transfer in this most visual of diagnostic disciplines.

Send your iCytology photographs to the editor for possible inclusion in future issues.





# CEC Local Officers (Spring 2014)

# Jocal Baac British Association 2014) Viv Beavers Manchester Cytology Centre

Alison Baseley Cytology Dept Royal Hampshire County Hospital Winchester, Hants S022 5DG Tel: 01962 825371 Fax: 01962 824664 e-mail: Alison.Baseley@wehct.nhs.uk

Beverley Crossley Cytology Dept Royal Oldham Hospital Rochdale Road OL1 2JH Tel: 0161 656 1742 e-mail: beverley.crossley@pat.nhs.uk

Hilary Diamond The Laboratories Belfast City Hospital Lisburn Rd, Belfast BT9 7AD Tel: 028 9026 3651 e-mail: hilary.diamond@bll.n-i.nhs.uk

### WALES POSITION VACANT VOLUNTEERS REQUESTED

Rhona Currie 2nd Floor Pathology Dept NRIE 51 Little France Crescent Dalkeith Road EDINBURGH EH164SA Tel: 0131 242 7156 e-mail: rhona.currie@luht.scot.nhs.uk Viv Beavers Manchester Cytology Centre Central Manchester Healthcare Trust P.O. Box 208, CSB 2 Oxford Road, Manchester M13 9WW Tel: 0161 276 5115 e-mail: Viv.Beavers@cmft.nhs.uk

Andrea Styant-Green 88 Campernell Close Brightlingsea Essex CO7 0TA Tel: 01206 744855 e-mail: Andrea.Styant-Green@colchesterhospital.nhs.uk

Helen Burrell Cytology Training Centre Southmead Hospital Bristol BS10 5NB Tel: 0117 959 5649 e-mail: Helen.Burrell@nbt.nhs.uk

**LONDON POSITION VACANT** VOLUNTEERS REQUESTED

> Please remember to make a copy of everything before it is sent — there have been one or two losses in the post. Thankyou

# **CEC Scheme Sponsorship**

It has been decided that no further requests for sponsorship will be needed as running costs are minimal.

On behalf of the BAC Executive, and I am sure all the members, I would like to express my sincere thanks to the Trade for the loyal support they have shown over the years in the development and growth of the CEC Scheme.

# CEC News – Spring 2015

# **Jenny Davies**

The scheme is still running smoothly, but time for change is upon us. This will be my last CEC news as Administrator. In the near future I will be handing the reins over to Helen Burrell, who has kindly volunteered to take the scheme forward.

I took over the scheme in 2004 from Nick Dudding (at a motorway service station as a half way meeting point) and after 11 years I think I hold the record for being the scheme administrator! I still have that original computer under my bed! I have thoroughly enjoyed playing my part in the scheme, and I think the changes I made to increase flexibility and carrying over credits have been a success. I was also very pleased that the scheme was encompassed into the structure of the BAC when NAC and BSCC merged. This highlighted the importance and uniqueness of the scheme for cytology staff. I send a big thank-you to my local officers past and present who have helped to make the scheme run smoothly, and to you as CEC members making use of the service. I wish Helen all the very best as she takes up the task; I am sure she will find many improvements that can be made to the scheme and I

# **Journal Based Learning**

Now on to this issue's JBL exercise, which has been set by Helen Burrell. There are 10 questions for the 10 points.

For submission, same instructions as before — photocopy the page and send your answers to me, or your Local Officer, for marking — there is no need to send your book.

know she will be very efficient.

As I am also retiring from my post here at the Training Centre, please can I ask that you send any JBLs for marking to one of the local officers to avoid any delays. Any books for validation, please send either to a local officer, or directly to Helen Burrell at the address on the local officer list. Local officers, please send to Helen when validated.

We have now lost quite a few of the local officers, but as CEC workload has fallen it may not be necessary to have so many. This issue will be raised at the next executive meeting in March 2015.

When you submit your CEC book for validation, if you do not know your BAC membership number, this can be retrieved via Christian from the membership database.

Remember — you can still transfer to the new scheme if you have an old book and are a current member of the BAC. The new scheme rules are much more flexible.

Please try to do the JBLs as they come up in each issue of SCAN. JBLs more than 12 months old should be considered closed. Only one submission of each JBL will count.

Remember to keep a copy. Please include your name, BAC membership number, and as we are not receiving your book, your return address.

# Advanced Specialist Diploma in non-gynaecological cytology Paul Cross

The Advanced Specialist Diploma (ASD) qualification in cervical cytology has been in existence since 2001 and has been well accepted. Developed and run by a Conjoint Board set up between the IBMS and the RCPath it has allowed suitably experienced biomedical scientists to demonstrate their competence and obtain a recognised qualification which allows them to report "positive" cytology within the cervical screening programme. Within non-gynaecological (NG) cytology, there has been the Diploma of Expert Practice (DEP) examination, allowing successful candidates to report negative cytology samples from serous fluids and urines, and certain types of respiratory cytology samples. The need for an ASD equivalent in NG cytology has been an obvious omission, and after several years of work between the IBMS, RCPath and BAC the first such examination for the ASD in NG cytology is finally scheduled for June this year. To a large extent the requirements for applicants mirror those of the ASD in cervical cytology. There is an examination with written and practical components, and candidates must provide evidence of NG cytology experience and participation in multidisciplinary team discussions. The details are available on the IBMS website (member log in required). Given that this is a new examination, there is also a "grand-parenting" option, which allows those accepted via this route to enter straight at the examination component level. Final details of the ASD process have been finalised over the winter. Successful candidates will demonstrate that they are competent to report "positive" cytology from serous fluid and urine cytology, and also certain types of respiratory samples, so mirroring very closely the DEP qualification in diagnostic repertoire.

# Rapid on-site assessment of specimens by biomedical scientists improves the quality of head and neck fine needle aspiration cytology

J .Breeze et al., Cytopathology 2014, 25, 316-321

1. What three factors can affect the diagnostic accuracy of head and neck FNAC?

2. According to the 2009 BSCC Code of Practice, when are the best results obtained with respect to FNA samples?

3. What were the aims of this study?

4. What two criteria were compared for samples taken before and after introduction of ROSA by BMS?

5. According to guidelines from the Royal College of Pathologists, what constitutes adequate epithelial cell content of a thyroid FNA sample?

- 6. State 3 additional features that should be considered when assessing specimen adequacy and quality.
- 7. According to the authors, what is the additional cost to an FNA procedure if a BMS is in attendance to carry out ROSA of the sample?

8. In this study what improvements were observed with regards sample quality following the introduction of ROSA?

9. What were the effects of BMS attendance on the length of an FNA clinic?

10. What potential benefits might offset the additional costs incurred with ROSA?

10 marks available

Name..... CEC number (if known).....

# **Best JPEG competition**

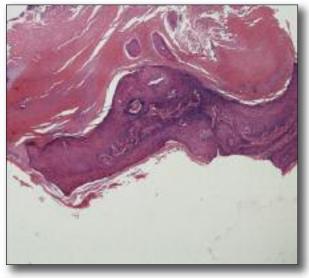
Cytology training centres in the UK were asked to submit their favourite digital images and here is what they came up with. The winning image was chosen by an independent judge and is displayed on the cover of this issue of SCAN.



A Welsh Duck



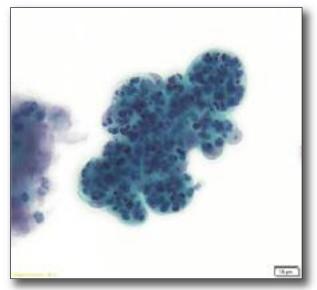
Unknown life form from Wales



Welsh dragon



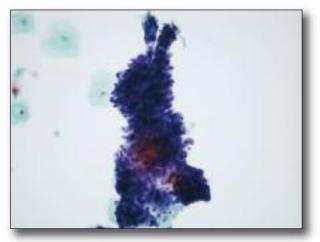
Sea anemone from the coast of Wales



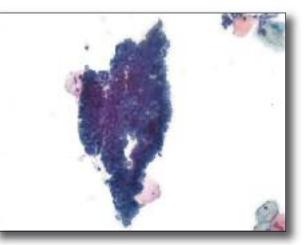
London Region Cytology Training Centre: endometrial hyperplasia



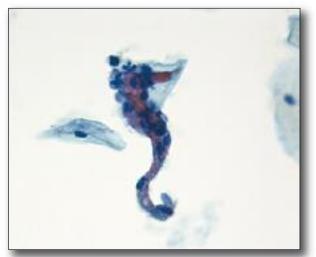
London Region Cytology Training Centre: IUCD changes



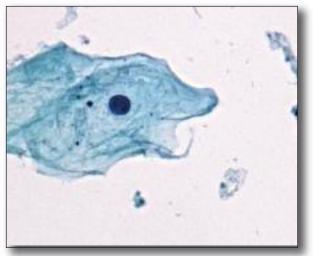
Bunny from Birmingham Cytology Training Centre



London Region Cytology Training Centre: ......



"LBC-horse" Cytology Dept, Pathology Partnership, Ipswich Hospital NHS trust



Scottish Cytology Training Centre: Dolphin

# **Case Reports**

# Dr Diane Hemming, Consultant Cellular Pathologist, Queen Elizabeth Hospital, Gateshead, UK

### Breast aspirate, 50-year-old female

The patient presented to the plastic surgeons with a seroma of the right breast seven years after breast augmentation with the insertion of bilateral implants. The seroma was aspirated yielding 13mls of blood stained fluid. There was no history of previous breast cancer or other significant pathology. What is your diagnosis? How would you confirm your diagnosis?

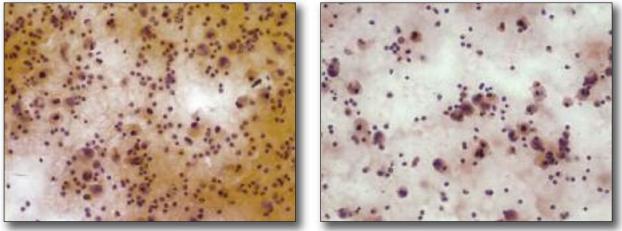


Figure 1.

Figure 2.

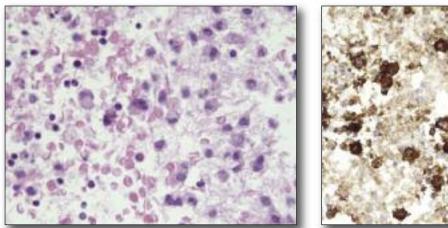


Figure 3.

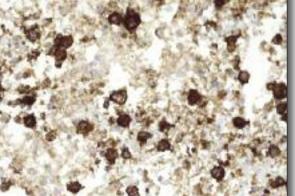


Figure 4.

### Bronchial brushing, 85-year-old female

The patient underwent bronchoscopy for right lower lobe collapse. At bronchoscopy a round polypoid vascular tumour almost filling the lumina of the bronchus intermedius was identified. Gentle brushing caused bleeding so no biopsies were taken. What is the diagnosis? How would you confirm your diagnosis?

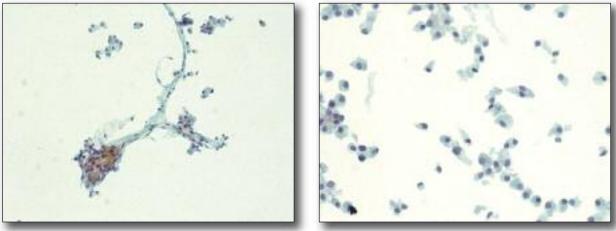


Figure 5.

Figure 6.

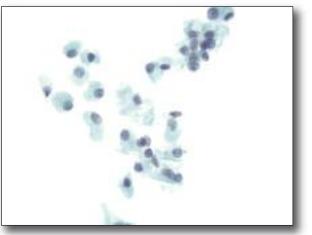


Figure 7.

Answers on page 22

# Ten tips for giving a really bad cytology talk

## **Andrew Evered**

Giving a really bad cytology talk isn't easy. Many bad things must come together at the same time and only the poorly prepared should ever attempt to disappoint their audience. Looking on the bright side, surprisingly little practice is required to master this fine art, which can be acquired on the train to the conference venue, or even while sitting in the audience as you wait for your slot. By keeping to the following rules you too can give the worst talk of your life. A poorly organised brain is a key factor in delivering a truly appalling presentation, so you do not need to follow these rules in any particular order.

1	Try not to plan too carefully. Improvisation is the name of the game in a cytology lecture.
2	Thank an enormous number of people right at the start of your talk. This will guarantee that you run out of time at just the point when your talk might start to get interesting. Be sure to include lots of blurry little pictures of the people who helped you prepare the talk.
3	Waste a lot of time on something really trivial, like discussing the correct spelling of "karyorrhexis." This is best done just after your pointless acknowledgements.
4	Provide an elaborate outline of the talk to come, phrased in terms the audience hasn't heard yet. This really helps to set the stage.
5	Never give a simple motivating example early on. Such a tactic is guaranteed to provide clarity. Instead, start with the most general, abstract statement possible (e.g. something about potato crops).
6	Blank space on the screen is wasted space, so fill it with images of poorly stained or unfocused cells. If your staining is really good and the images in focus, don't despair. Simply replace the cytology images with irrelevant clipart (preferably animated with sound effects). And remember to read every bullet point on the screen word-for-word. A real audience grabber.
7	If you are showing a table, the more rows and columns the better. Statements like "you probably can't make out these numbers" will completely enthral.
8	Try to avoid speaking clearly. If the organisers have provided a microphone, be sure to alternate between standing too far away from it and standing so close that the audience can hear the contents of your stomach churning. If the chairman thinks he can solve the problem by attaching a microphone to your collar, be sure to wander too close to a loudspeaker at frequent intervals to produce just the right level of acoustic feedback throughout your talk. You don't want the audience falling asleep on you now, do you!
9	Go back and forth rapidly between your slides. >>>That's what computers are for.
10	If you are running out of time talk as fast as possible, but make sure you show every slide, even if it's just for a millisecond. Say things like "This is really interesting stuff, I wish I had time for it". The audience will be eternally grateful for your thoroughness.

### Acknowledgements

This article was inspired by a statistician, and is dedicated to all those statisticians who have given so much of their valuable time attempting to teach biologists the intricacies of significance testing

# European Congress of Cytology (ECC), 2–5th October 2016

### **Paul Cross**

It may seem a long way off, but planning is already well advanced for the above meeting. The BAC had the privilege of bidding for the ECC meeting for 2016, and was awarded the meeting at the ECC meeting in Geneva held last September. The meeting is held annually, and the 2016 meeting

will be the 40th ECC meeting, under the auspices of the European Federation of Cytology Societies (EFCS). So far we have agreed dates of 2-5th October 2016, and the conference will be held at the Arena and Convention Centre (ACC) on Liverpool's quay side. The venue is ideally situated, within easy walk of

many hotels and the city centre, and is situated on

the banks of the Mersey river. The ACC has many rooms, and we will be using the main hall as well as several other breakout rooms, allowing for a variety of parallel sessions to be held at the same time. In addition we will be offering hands on practical workshops within the main venue.

The organisation of such a meeting cannot be underestimated. This will be the fifth scientific meeting the BAC will have organised and we are delighted to have appointed a professional conference organiser (PCO) in Conference Partners. We have already been working very closely with them and the meeting website (http://www.cytology2016.com/) is under construction. We have also agreed the meeting logo — see the back page of this SCAN. You will be seeing a lot of this logo over the next two years and it will be used extensively to promote the meeting. The role of the PCO is extensive, and they will help us in arranging many aspects of the meeting such as delegate booking, including hotels if requested, speaker liaison, poster and abstract submissions and the commercial exhibition. Our commercial partners are always vital to any meeting, and we hope to have very attractive packages to allow the companies to demonstrate their products, and their contribution in supporting any such meeting must not be underestimated.

There will of course also be a social side to the meeting, and we are planning to provide a mix of organised events but also give enough free time to allow delegates to do their own thing and enjoy the many sites and attractions of Liverpool, as well a chance to meet colleagues from Britain and beyond.



ECC 2016 2-5 October Liverpool, UK www.cytology/2018.com

But what of the scientific meeting itself? Again, the provisional programme and content is already under construction, and speakers are being approached. We want to use the meeting to promote British cytology, but also to allow us all to see the best that Europe and beyond can teach us, so we can

share ideas and best practice. One of the main themes of the meeting will be about breaking down barriers and expanding roles — this is so relevant now and will be more so in the future, given the changing face of medicine and cytology. We want to get a good balance between cytology as a discipline, the

developments and advances within it, and the clinical use and place of cytology in modern medicine. We also want the meeting to have an enduring legacy, and whilst we want people to remember the meeting as a positive experience in itself we would like to ensure that it is more than that, and that the impact of the meeting outlives the actual event itself.

However, before the UK in 2016 comes the ECC meeting in Milan this year (http://www.cytology2015.com/). BAC representatives will be present at this meeting, promoting not only the 2016 Liverpool meeting but also the BAC itself. We hope to see as many of you at the Milan meeting as possible, but also at our own meetings during 2015.

Whilst we have ideas for the ECC meeting we are always on the lookout for BAC members' input and ideas for this and any future BAC meetings. The organising committee would welcome any input or suggestions via the usual BAC email address, or direct to myself as Chair of the organising committee, or any member of the organising committee.

So, it may seem a long time off, but as you can see a lot has already been done and a lot more is yet to be done! We will keep you informed through SCAN, the website and by email updates. So put the dates in your diary, make sure you can attend, think about submitting an oral or poster presentation, and start planning for it yourself now!!!



Dr Paul Cross, Chair 2016 ECC Organising Committee

Organising Committee: Kay Ellis, Alison Cropper, David Carter, Allan Wilson, Professor Mina Desai, Dr Tom Giles.

# Case Report Answers (from p.18)

# Dr Diane Hemming, Consultant Cellular Pathologist, Queen Elizabeth Hospital, Gateshead, UK

### Breast aspirate, 50-year-old female

The seroma fluid was heavily blood stained with poor cell preservation but nonetheless showed an abnormal population of large atypical lymphoid cells with high nuclear/cytoplasmic ratios, abnormal nuclei with prominent nucleoli and eosinophilic cytoplasm (Figures 1 and 2). Small lymphocytes and monocytes were present in the background together with evidence of apoptosis. Mitoses were easily identified.

Immunocytochemistry of the processed clot (Figure 3) showed the atypical large lymphoid cells to express CD30 (Figure 4), BCL2 and CD15 with some expression of EMA. The atypical cells appeared largely negative for LCA and CD3 and did not express CD20 or CD79a. The proliferation index measured with Ki67 was high. Although interpretation of the immunocytochemistry was difficult

due to background staining and debris, the features were consistent with lymphoma. The case was sent to the local expert lymphoma panel who confirmed a T cell ALK negative anaplastic large cell lymphoma.

There is a rare but recognised association between breast implants and this type of lymphoma. Cytologists should be aware of this complication when assessing cytology preparations from patients with implants, especially if the specimens show poor cell preservation as was the case with this aspirated seroma.

Further investigations revealed no evidence of lymphoma elsewhere. The implants were removed with surrounding tissue but no mass lesion was identified. The patient has now commenced treatment for the lymphoma.

### Bronchial brushing, 85-year-old female

Examination of the bronchial brushings showed mainly dispersed cells with fragile finely granular cytoplasm and either centrally placed or eccentrically place nuclei (figure 6). The nuclei were smooth and rounded with a finely stippled chromatin pattern (figure 7). No necrosis was seen in the background but delicate small capillary vessels were identified to which some of the atypical cells were attached. There was no nuclear moulding and no mitoses were identified. A few benign bronchial epithelial cells were seen in the background.

A clot was processed from the lbc preparation and this contained scanty cells (figure 8). The cells were found to express the neuroendocrine markers chromogranin

(figure 9), synaptophysin and CD56. The diagnosis of carcinoid tumour was made. The diagnosis was confirmed on subsequent surgery.

Bronchial carcinoids are neuroendocrine tumours accounting for 1 – 2% of all bronchial neoplasms. They are slow growing and rarely metastasise. 75% of patients present with central tumours, the symptoms including cough, wheezing, chest pain and haemoptysis. The tumours are usually very vascular making biopsy hazardous. The diagnosis can be difficult as the tumours are often covered by intact bronchial mucosa and bronchial brushings may yield little or no tumour cells. A useful diagnostic clue in cytology preparations is the presence of small capillary vessels to which the tumour cells cling (Figure 5).

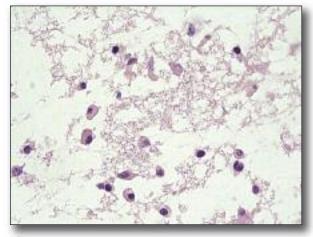






Figure 9.



# NHS Lothian

# Scottish Cytology Training School

# Programme 2015/16

No course fee is charged for Gynae cytology courses to employees of Scottish NHS Trusts

# **Training School Director**

Dr Edward Duvall Tel: 0131 242 7123 Email: <u>Edward.Duvall@luht.scot.nhs.uk</u>

# **Training School Manager**

Sue Mehew Tel: 0131 242 7149 Email: <u>Sue.mehew@luht.scot.nhs.uk</u>

# **Training School Administrator**

Mrs Linda A Cooper Training School Administrator Pathology Department Royal Infirmary of Edinburgh 51 Little France Crescent Edinburgh EH16 4SA (Available: 0800 – 1515, Tues - Thurs) Tel: 0131 242 7135 Email: Linda.Cooper@luht.scot.nhs.uk

# Application forms available on request from:

scts@nhslothian.scot.nhs.uk

**NHSCSP Accredited Training Centre** 

From February 2015 SCTS Courses will be at The Bioquarter, Royal Infirmary of Edinburgh, 1<sup>st</sup> Floor, Building 9, Edinburgh Bioquarter 9 Little France Road Edinburgh EH16 4UX Reception - 0131 658 5150 <u>http://www.edinburghbioquarter.com/nine/</u>

unless states (SGH) Southern General Hospital, Glasgow. Non-NHS Labs – price on application All courses are Liquid Based Cytology (ThinPrep) Courses are CPD accredited

# **Introductory Course**

 $23^{rd}$  February – 20th March 2015 7<sup>th</sup> September – 2<sup>nd</sup> October 2015 22<sup>nd</sup> February – 18<sup>th</sup> March 2016

£1000

# Introductory Course Part 2 tbc

16<sup>th</sup> November – 20<sup>th</sup> November 2015

# **Update Course**

 $24^{th} - 25^{th} March 2015$   $22^{nd} - 23^{rd} April 2015$   $9^{th} - 10^{th} June 2015 (SGH)$   $4^{th} - 5^{th} November 2015 (SGH)$   $1^{st} - 2^{nd} December 2015$  $1^{st} - 2^{nd} February 2016$ 

£100 per day

# **Pre-Exam Course**

 $24^{th} - 26^{th}$  Aug 2015 (for Oct Exam)

### £250

# Workshops

26th Nov 2015 – Medical Staff tbc

£100

# Non-Gynae Courses - for Trainee Medical (ST3) & BMS staff

 $4^{th} - 6^{th}$  March 2015 *tbc*  $22^{nd} - 24^{th}$  September 2015 *tbc* 

£100 per day

# **Course for Colposcopists**

13<sup>th</sup> - 14<sup>th</sup> January 2015

### £100 per day

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# SOUTH WEST REGIONAL



# 2015 Course Schedule

Date	Gynae Courses	Fee*
2-13 March – First	Introductory in Gynae Cytology	NHS £1000
part/ 13-24 April –Second		Other £1200
part 21 Sept-16 October		
23-25 February	Update in Cervical Cytology for Technical Staff	NHS £300
19-21 May 15-17 September	1 5 65	Other £350
1-3 December		
29 April 8 December	Update for Cytology Checkers	£100
<del>25 March</del> cancelled 11 November	Update in Cervical Cytology for Pathologists & Consultant BMS's & Holders of the Advanced Specialist Diploma in Cervical Cytology	£100
10 June	Gynae Histology for Technical Staff	£100
3-4 November	Gynae Pathology for Trainee Colposcopists	£200
11-12 May 7-8 September	Cervical Sample Taker Training	£250
14 May 18 November	1/2 Day Update in Cervical Screening for Sample Takers	

Date	Non-Gynae Courses	Fee*
10 February	Serous Fluid Cytology	£100
17 March	Respiratory Cytology	£100
20 October	FNA Cytology	£100
24 November	Urinary Tract Cytology	£100
6-9 July	Non-Gynae for Trainee Pathologists	£400

\*PLEASE NOTE THAT NO FEE IS APPLICABLE FOR NHS STAFF BASED IN THE SOUTH WEST REGION

South West Regional Cytology Training Centre Department of Cellular Pathology

Department of Cellular Patho Lime Walk Building Southmead Hospital Bristol BS10 5NB Tel: 0117 323 5649 Fax: 0117 323 5640 Email: <u>SWRCTC@nbt.nhs.uk</u>

www.cytology-training.co.uk



# **BIRMINGHAM CYTOLOGY TRAINING CENTRE**

All BCTC courses are provided in SurePath and/or ThinPrep LBC

**IBMS RCPath CPD accredited courses** 

INTRODUCTORY COURSES FOR NHSCSP DIPLOMA IN CERVICAL CYTOLOGY

October 2015 (dates tbc)

This four-week course provides students with a theoretical and practical introduction to cervical cytology. A five-day Follow-on Course is offered free of charge to all those attending our Introductory Course.

FOLLOW-ON COURSES FOR NHSCSP DIPLOMA IN CERVICAL CYTOLOGY

2016 dates to be arranged if required

PRE-EXAMINATION COURSES FOR THE CITY & GUILDS/NHSCSP DIPLOMA IN CERVICAL CYTOLOGY

25-27 August 2015, 18-20 January 2016 A three-day course for those preparing to take the City and Guilds/NHSCSP Diploma in Cervical Cytology

UPDATE COURSES IN GYNAECOLOGICAL CYTOLOGY (ThinPrep & SurePath) 9 March 2015 (Checkers' Update) 27 April, 28 April, 19 May, 30 July, 7 September, 15 October & 9 November 2015 (topics tbc)

NON-GYNAECOLOGICAL CYTOLOGY FOR TECHNICAL STAFF

23-24 April 2015

Ideal for those completing their portfolio for the Specialist Diploma

ADVANCED PRACTITIONER IN GYNAEPATHOLOGY 23 January, 20 February, 6 March & 1 May 2015

A four-day practical course for Year 1 Biomedical Scientists undertaking the Histopathology Reporting Pilots

**BIRMINGHAM HISTOPATHOLOGY COURSE** 

8-20 June 2015 (course includes optional Saturday & Sunday am for personal revision) This two-week course provides topic based lectures on systemic pathology, slide review of selected cases followed by discussion and a revision session including mock exam in preparation for the FRCPath Part 2 exam.

**GYNAECOLOGICAL CYTOLOGY FOR TRAINEE PATHOLOGISTS (StRS)** 

3-4 September 2015

The programme for this course is a combination of lectures workshops and multiheader sessions. This course includes a mock exam and is particularly suitable as revision for the FRCPath Part 2 exam

> NON-GYNAECOLOGICAL CYTOLOGY FOR TRAINEE PATHOLOGISTS (StRS) 8-12 September 2015 (course includes optional Saturday am for personal revision)

The programme for this course is comprehensive and includes the salient aspects of diagnostic non-gynaecological cytology. This course includes a mock exam and is particularly suitable as revision for the FRCPath Part 2 exam

WEST MIDLANDS AUTOPSY PATHOLOGY COURSE

14-15 September 2015

For trainees in preparation for the Autopsy element of the FRCPath exam and Consultant Pathologists involved in coronial / procurator fiscal work as an update for annual appraisal and revalidation.

**INTRODUCTORY COURSE FOR ST1s** 

30 November-4 December 2015 (provisional date) Gynaecological and Non-Gynaecological Cytology including Autopsy element

LECTURE SERIES IN GYNAECOLOGICAL PATHOLOGY

### Gynaecological Sarcomas 17 April 2015

Pathology of Ovarian Epithelial Tumours 11 September 2015

Update for consultant pathologists and senior trainees with an interest in gynaecological pathology.

LBC Conversion Courses, Ad hoc workshops and Off Site workshops can be arranged on request—please contact BCTC

Please see our website for full list of our courses. For further details and reservations please contact Louise Bradley or Amanda Lugg

Birmingham Cytology Training Centre, Birmingham Women's Hospital, Birmingham, B15 2TG, Phone: 0121 627 2721, Fax: 0121 627 2624, Email: Louise.Bradley@bwnft.nhs.uk or Amanda.Lugg@bwnft.nhs.uk Website: http://www.bwnft.nhs.uk/professionals/cytology-training-centre

Directorate of Laboratory Medicine		IHS Foundation Trust							
THE NORTH WEST CYTOLOGY TRAINING CENTRE COURSES 2015 Please visit <u>www.cmft.nhs.uk/nwcytologytraining</u> for more information and to book a place on any of the courses listed.									
Bespoke training available on request Please contact the Centre with your requirements	Courses aimed at tackling staff wishing to chall 2015 Dates to be announced Non Gynae Beginners Adequacy assessment	lasses for Medical Staff difficult areas, for Consultant enge their knowledge - check website for more details Guides (BMS/Screeners) of head and neck including irration cytology for scientific staff							
LBC Update Course in Gynae Cytology for BMSs/Cytoscreeners (SurePath) *£100 per day	Respiratory Cyto 9th Sep Serous Fluid	July 2015 logy for Scientific Staff tember 2015 for Scientific staff otember 2015							
Topic A – Borderline Topic B – Atrophy Topic C – Pitfalls and lookalikes 20 <sup>th</sup> , 21 <sup>st</sup> , 22 <sup>nd</sup> April 2015	Pre-Examination Course for the C&G Diploma in Cervical Cytology (Surepath)* <u>Bespoke training on request</u>	Cytopathology of EBUS FNA with ROSE for Consultant Cytopathologists Date to be arranged							
6 <sup>th</sup> , 7 <sup>th</sup> , 8 <sup>th</sup> July 2015 12 <sup>th,</sup> 13 <sup>th</sup> , 14 <sup>th</sup> October 2015 Topic days to be confirmed	FRCPath COURSES 2015 Non Gynaecological Cytology <u>Revision</u> Course 9 <sup>th</sup> – 13 <sup>th</sup> February 2015 17 <sup>th</sup> – 21 <sup>st</sup> August 2015 FRCPath Pre – Exam course								
Gynae Master Classes* Courses aimed at tackling difficult areas, for Medical and BMS Consultant	9 <sup>th</sup> - 13 <sup>th</sup> / 24 <sup>th</sup> - 28 <sup>th</sup> /	March 2015 August 2015 r <mark>regional trainees</mark>							
staff, and experienced staff wishing to challenge their knowledge 2015 Dates to be announced – check website for more details	Novice Sample Taker Training Course fee £330 Check Website for more	Primary Care ½ day Update Event Fee £30							
Introductory Course for C&G Diploma in Cervical Cytology*	details 25 <sup>th</sup> – 26 <sup>th</sup> February 2015 24 <sup>th</sup> – 25 <sup>th</sup> June 2015 18 <sup>th</sup> – 19 <sup>th</sup> November 2015	19 <sup>th</sup> March 2015 18 <sup>th</sup> June 2015 10 <sup>th</sup> September 2015 3 <sup>rd</sup> December 2015							
21 <sup>st</sup> July – 14 <sup>th</sup> August 2015 Fee £1000 Director Dr. Miles Holbrook	* <u>Mandatory Courses Are Free Of</u> <u>Charge to North West Region</u> <u>Technical Staff</u> . Please note that all gynae courses are based on Surepath morphology	Mentor Updates Course Fee: TBC 24 <sup>th</sup> March 2015 14 <sup>th</sup> July 2015 3 <sup>rd</sup> November 2015							
Clinical Lead for Cervical Cytology 0161 276 6727 Email: <u>miles.holbrook@cmft.nhs.uk</u>	Administrator: Miss Jen Bradburn 0161 276 8804 Email: jennifer.bradburn@cmft.nhs.uk								

### East Pennine Cytology Training Centre



Overall Winner 2010

Achieving Excellence in Learning, Teaching & Development

### Training Centre Manager:

Mr N Dudding 0114 226 8691 Nick.dudding@sth.nhs.uk Website: www.cytologytraining.co.uk

# One-Day Update Courses in ThinPrep<sup>®</sup> Cytology

### **Pitfalls, Problems and irritations**

Covering challenging and interesting cytological presentations from both squamous and glandular lesions including typical look a likes and pitfalls

1<sup>st</sup> April, 16<sup>th</sup> June, 1<sup>st</sup> October & 8<sup>th</sup> December 2015 Course Fee\*: £95

### One-Day Hospital Based Programme Co-ordinators Course

This course is aimed at all Hospital Based Programme Coordinators (HBPCs) both experienced and new from any specialty. It includes an introductory session covering your role and responsibilities and will include areas such as governance, lines of accountability, incidents, invasive cancer audit and the link between the audit and disclosure

> 16<sup>th</sup> July 2015 Course Fee\*: £120

## Breaking Bad News One Day Communication Skills Course

This day is designed to give delegates the opportunity to explore some of the communication challenges they face, the use of appropriate facilitative skills and the associated theory. Would be ideal for anyone involved in feedback to patients through disclosure.

> 17<sup>th</sup> July 2015 Course Fee\*: £120

Administration:

Mrs K Hawke 0113 246 6330 Kathryn.hawke@nhs.net

### Update Courses in Non-Gynae Cytology

A series of three one day courses covering serous fluids, urine and respiratory cytology and ideal for anyone seeking an update in these areas, particularly those intending sit the IBMS diploma. Also includes an optional fourth half-day covering aspects of the IBMS

exam. 28<sup>th</sup> April – 1<sup>st</sup> May 2015

Course Fee\*: £95 / £230 / £345

### One-Day Introductory Non-Gynae Cytology Workshops

Ideal for anyone requiring an introduction to nongynae cytology. These courses will cover specimen preparation and understanding the morphology of urine, respiratory and effusion cytology. Very useful to anyone undertaking their Specialist Portfolio.

> 15<sup>th</sup> & 16<sup>th</sup> September 2015 Course Fee\*: £95 per day

# Thyroid Cytology All you need to know, an introduction BMSs and Junior Medical Staff

Aimed to give anyone involved in or thinking about starting with Thyroid cytology an overview of basic histology, cytology and their clinical correlations.

> 19<sup>th</sup> May 2015 Course Fee\* : £95

\*Participants from the North East, Yorkshire and East Midlands will incur £15 administration fee per day on all courses above except those marked • where full fee applies. All prices are subject to change. Further information and application forms are available from our Administration Team: <u>Kathryn.hawke@nhs.net</u>.



London Regional Cytology Training Centre

The North West London Hospitals NHS NHS Trust

# 2015 COURSES

All course information and online booking form can be found on our website www.lrctc.org.uk

### Pre-Registration Gynaecological Courses

INTRODUCTORY COURSE IN GYNAECOLOGICAL CYTOLOGY (Thinprep-)

- 2<sup>nd</sup> 27<sup>th</sup> February
- 5<sup>th</sup> 30<sup>th</sup> October

Course fee:

- Contracted London regional students: No charge - All other students: £1100

### FOLLOW UP COURSE (Thinprep)

- 13<sup>th</sup> April 17<sup>th</sup> April
- $27^{th} 31^{st}$  July

Course fee:

- Those who attended the Introductory Course at LRCTC: No charge Other participants: £400

### PRE – EXAM COURSE (Thinprep•)

- 5<sup>th</sup> 9<sup>th</sup> January
- 21<sup>st</sup> 25<sup>th</sup> September
- Course fee:
- Contracted London regional students: Free
- Non-Contracted students: £400

### **Medical Practitioners Courses**

### PATHOLOGISTS COURSE - GYNAE

This two day course covers gynaecological cytology.

4<sup>th</sup> - 5<sup>th</sup> + 6<sup>th</sup> (Optional Mock Exam) March

Mock exam - +£50 Course fee: - £200

### **PATHOLOGISTS COURSE – NON GYNAE**

This four day course covers non-gynaecological cytology.

- 9<sup>th</sup> 12<sup>th</sup> + 13<sup>th</sup> (Optional Mock Exam) March 14<sup>th</sup> 17<sup>th</sup> + 18<sup>th</sup> (Optional Mock Exam) September

Course fee: - £ 400 Mock exam - +£50

Please indicate on the online booking form if you wish to attend the mock exam.

### **MEDIC'S 1-DAY UPDATE COURSE**

A refresher course for consultant pathologists/AP's

- 22<sup>nd</sup> May
- 30<sup>th</sup> September

Course fee

- Contracted London regional participants: Free
- Non-Contracted participants: £150

### Post Registration Courses

**BMS/CYTOSCREENER UPDATE COURSE** 

- 13<sup>th</sup> 15<sup>th</sup> January
- 17<sup>th</sup> 19<sup>th</sup> March
- $22^{nd} 24^{th}$  April
- 19<sup>th</sup> 21<sup>st</sup> Mav
- 8<sup>th</sup> 10<sup>th</sup> June
- 2<sup>nd</sup> 4<sup>th</sup> September
- 24<sup>th</sup> 26<sup>th</sup> November
- 9<sup>th</sup> 11<sup>th</sup> December

### Course fee:

- Contracted London regional participants: Free - Non-Contracted participants: £350

### Introductory Non-Gynae Courses

### **RESPIRATORY CYTOLOGY COURSE**

15<sup>th</sup> – 16<sup>th</sup> June

### SEROUS FLUID CYTOLOGY COURSE

10<sup>th</sup> – 11<sup>th</sup> September

### URINE CYTOLOGY COURSE

2<sup>nd</sup> – 3<sup>rd</sup> December

Course Fees - Contracted London regional participants: Free

- Non-Contracted participants: £200

### Medical Laboratory Aides (MLA's) Courses

### INTRODUCTORY MLA COURSE

This is an Introductory course designed to cover topics such as overview of the NHSCSP, terminology, role of an MLA and audit.

- 27<sup>th</sup> April
- 18<sup>th</sup> November

Course Fee

- Contracted London regional participants: Free - Non-Contracted participants: £150

# Book online at www.lrctc.org.uk

All courses above are CME, IBMS CPD and NAC CEC accredited. Further details/information can be obtained by contacting 0208 869 5270 or emailing nwlh-tr.lrctcbooking@nhs.net or by visiting our website.

# **European Congress of Cytology (ECC)**









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### Front Cover image: Best JPEG competition

Cytology training centres in the UK were asked to submit their favourite digital images. The winning image was submitted by Tracy Cotterell, Cytology Department, The Pathology Partnership, Ipswich Hospital NHS Trust.





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www.britishcytology.org.uk