

College NEWS



Spring
2011

The Royal College of Ophthalmologists 2011 Annual Congress

Tuesday 24 May – Thursday 27 May at the ICC, Birmingham

We hope to welcome you to our 2011 Annual Congress which promises to be a great meeting. We have a varied and packed scientific programme and have chosen the best speakers in their different fields. Alongside the excellent scientific sessions there will be rapid fire sessions, poster exhibitions, DVD presentations and the largest ophthalmic exhibition in the UK.

We have three distinguished speakers to deliver the 2011 Eponymous Lectures. Professor Eberhart Zrenner, Director of the Institute of Ophthalmic Research at University Tübingen, Germany, will be delivering our Edridge Green Lecture and Professor Graeme Black, Professor of Ophthalmology and Honorary Consultant in Genetics & Ophthalmology at St Mary's Hospital, Manchester, is giving the Duke Elder Lecture 2011. The Optic UK Lecture will be delivered by Professor Stanley Chang, MD Director at Columbia University, USA. Biographies for all our eponymous lecturers can be found on the website.

The Retina Day last year was a huge success and we see its return

this year on Monday 23 May. There are several keynote speakers and the day will cover key updates in medical and surgical retina. The presentations will complement the content in the main meeting. Separate registration is required for this event.

We will also be holding a special Allied Professions Day on Wednesday 25 May; do please encourage your colleagues to attend.

As ever the courses were very popular last year and we urge you to register early as places for these sessions are on a first come, first served basis.

Registration is now open and there is an early bird discount for consultants until Monday 18 April. All details can be found at www.rcophth.ac.uk/annualcongress



*Graeme Black
Duke Elder*



*Eberhart Zrenner
Edridge Green*



*Stanley Chang
Optic UK*

- 2 Memorial for Mr John Lee
- 3 Members' news and new appointments
- 5 Focus
- 7 Medical Ophthalmology
- 9 Article 14
- 10 International news
- 12 Travel awards and fellowships
- 13 Honorary Fellows
- 15 The Basic Skills Supplement
- 20 Events

For more information on Congress please visit page 3

Articles and information to be considered for publication should be sent to:
kathy.evans@rcophth.ac.uk
and advertising queries should be directed to:
Robert Sloan 020 8882 7199
robertsloan@virginmedia.com

Copy deadlines

- Summer
5 May 2011
- Autumn
5 August 2011
- Winter
5 November 2011
- Spring
5 February 2012

The basic skills supplement

This bumper issue celebrates twenty years of basic skills course training, first pioneered by Mr Larry Benjamin and Mr Nigel Cox in Stoke Mandeville in 1990. During that time, over 4,000 trainees have attended courses, which have been run in various locations both within the UK and abroad. Meike Hummerich describes the development of the Eyesi simulator; Mr Brian Little and Mr Benjamin explain some of the different techniques and philosophies of training in phacoemulsification. Phil Bosworth, ex-Tornado pilot, gives a fascinating insight in to training of jet pilots, which provides food for thought as we enter the next two decades of surgical training. And the College Curator, Richard Keeler, provides a historical perspective. Please see pages 15 – 19.

Memorial for Mr John Lee

Close to 600 people paid tribute to the late President on Saturday 29 January 2011 at St Leonard's Church in Shoreditch. Colleagues came from Italy, Spain, Turkey, Belgium, Holland, Ireland, Canada and from the USA, including Dr Alan Scott who did the original research on Botulinum Toxin. A display of photographs and letters, written by and about John, set the tone of irreverent affection. The service featured eulogies from family members and colleagues who paid tribute to his 'sense of carpe diem' and 'towering intellect'.

The son of Irish teacher parents and the oldest of 11 siblings, John studied medicine at Oxford before going on to become a consultant at Moorfields Eye Hospital and an authority on strabismus of world renown.

His sister, Anna, led the tributes, speaking of his childhood growing up with seven sisters. The feminine influence grew stronger when, upon marrying Arabella, he acquired five sisters-in-law.

His son Ben continued the theme by recounting family holidays in Connemara and his father's love of crosswords and board games, especially Risk, for which he enjoyed the prospect of 'world domination'. A great capacity to store general knowledge made John a formidable Trivial Pursuit opponent and won him a place on University Challenge.

Colleague Mr Bruce Noble spoke of John's enjoyment of ridiculous or surreal humour and how he particularly relished Spike Milligan's take on 'Beachcomber'. Among the many zany characters created on the BBC2 show, John loved the mad professor 'Dr Strabismus (whom God Preserve) of Utrecht'. This is an extraordinary example of serendipity since at that point John had absolutely no intention of doing ophthalmology, let alone squints.

Moorfields colleague Miss Gill Adams recalled John's electrifying influence on colleagues and 'Beatles hairstyle' in a hospital known as a 'straight back and sides' place. Gill recounted his relaxed attitude to health and safety but also his kindness and support for junior colleagues.

From 2002–2006, John held the presidency of the International Strabismological Association (ISA) and in that connection Dr Jan-Tjeerd de Faber flew in from the Netherlands to give an address. Referring again to 'Dr Strabismus from Utrecht', he said: 'The founder of Dutch ophthalmology is Franciscus Cornelis Donders; John Lee will be in his league! Why?

Because the Rotterdam Eye Hospital has five mobile eye clinics in white Mercedes vans which reach out to less mobile patients in nursing homes.

The first "Oogbus" (eyebus) was named after Professor Donders. The following vans after Professor Snellen, Professor Henkes, and Dr Binkhorst. The newest mobile eye clinic will be named: "Mr John P Lee".

International colleague Dr John Flynn, from the USA, reminded guests of John's contribution to science, having published more than 130 journal papers and training 40 postgraduate fellows.

The memorial was filled with music. As well as pieces by Bach and Handel, sung by his niece Anna Sideris, there was an acoustic version of Jackson Browne's song, 'Doctor My Eyes'. The service finished with the Irish folksong, 'Parting Glass' and a lament with uilleann pipes.

It is anticipated that an audio recording of the memorial will appear on the members' area of the College website www.rcophth.ac.uk



The service sheet

The MRC/RCOphth John Lee Fellowship

The College intends to commemorate John's contribution to ophthalmology by naming a Research Fellowship after him, funded jointly by the Medical Research Council and the College. This Fellowship is likely to begin in 2012 and the College seeks contributions to enable it to pay its share of the costs, of circa £125,000.

If you would like to make a contribution to this fund you may do so in one of the following ways:

1. By downloading a Gift Aid Form from the College website www.rcophth.ac.uk/giftaid and send a cheque payable to 'The Royal College of Ophthalmologists' (please mark the envelope: 'John Lee Fellowship Fund').
2. By making a electronic donation through our 'just giving' website: www.justgiving.com/rcophth/donate

Bike ride

John's nephew will cycle from Land's end to John O'Groats in a sponsored ride. All proceeds will go to the Fellowship.

Members' News and Appointments

Consultant Appointments

We rely on medical personnel departments to confirm consultant appointments. Please contact aac@rcophth.ac.uk if you notice an error or omission.

Miss Poorna Abeysiri	Queen's Hospital, Romford
Mr Imran Akram	St Helens Hospital, St Helens
Mr Mohammad Nadeem Ali	Moorfields Eye Hospital, London
Miss Susanne Althausen	Royal Free Hospital, London
Ms Seema Anand	James Cook University Hospital, Middlesbrough
Mr Paul Baddeley	Worthing Hospital, Worthing
Mr Paul Cannon	Royal Shrewsbury Hospital, Shrewsbury
Miss Sharmin Chowdhury	Frimley Park Hospital, Frimley
Miss Luna Dhir	Chelsea and Westminster Hospital, London
Mr Bertie Fernando	Royal Blackburn Hospital, Blackburn
Mr Amit Gaur	Royal Glamorgan Hospital, Llantrisant
Miss Sonia George	Royal Hospitals, Belfast
Mr Yajati Ghosh	Birmingham and Midland Eye Centre, Birmingham
Ms Catherine Guly	Bristol Eye Hospital, Bristol
Mr Tarek Hammam	Royal Shrewsbury Hospital, Shrewsbury
Mr Steven Harsum	Sutton Hospital, Sutton
Mr Vijay Hegde	Cumberland Infirmary, Carlisle
Ms Anju Kadyan	Royal Shrewsbury Hospital, Shrewsbury
Mr Srikanth Kamalarajah	Royal Hospitals, Belfast
Ms Rehna Khan	Calderdale Royal Hospital, Halifax
Miss Evelyn Mensah	Central Middlesex Hospital, London
Mr Dan Nguyen	Bristol Eye Hospital, Bristol
Miss Sarah Osborne	Pilgrim Hospital, Boston
Miss Bina Parmar	Milton Keynes Hospital, Milton Keynes
Mr Theocharis Papanikolaou	North Middlesex University Hospital, London
Miss Shohista Saidkasimova	Norfolk and Norwich University Hospital, Norwich
Miss Julia Sen	Alexandra Hospital, Redditch
Miss Asifa Shaikh	Stoke Mandeville Hospital, Aylesbury
Mr Hiten Sheth	Stoke Mandeville Hospital, Aylesbury
Mr Jagdeep Singh Gandhi	Worcestershire Royal Hospital, Worcester

Regional Advisers

Regional Advisers are appointed by Council to act on behalf of the College. They must be:

- Fellows of the Royal College of Ophthalmologists registered with the College for Continuing Professional Development (CPD).
- NHS consultants with an established or honorary contract in active practice. Advisers must stand down on retirement from their NHS post.

The table below shows those post holders who will shortly complete a three year term of office. Any person wishing to stand should contact esther.merrill@rcophth.ac.uk

RETIREMENT DATE	NAME	REGION	ELIGIBLE FOR RE-APPOINTMENT
June 2011	Mamdouh El-Naggar	Northern	Yes
June 2011	Geoffrey Woodruff	East Midlands (South)	No
June 2011	Richard Gregson	East Midlands (North)	No

MORE CONGRESS NEWS

The Annual General Meeting

The 2011 AGM will take place at 4.00 pm on Wednesday, 25 May and all members are eligible to attend. Those members who are not registered for Congress but wish to attend the AGM only must present themselves at the registration desk at 3.15 – 3.45 pm so that a security pass can be made.

The agenda and proposed subscriptions for 2012 have been included as an insert in this issue of College News. The papers are also on the members' area of the website: www.rcophth.ac.uk

OTG Forum

Tuesday 24 May 2011 at 5.30 pm

Staff and Associate Specialists Forum

Wednesday 25 May 2011 at 5.30 pm
Feedback is very important to us and to encourage future completion of feedback forms we have drawn, from a large sack, a form from Congress 2010. Miss Luna Dhir wins a week of free registration at Congress 2011.

Seniors' Day

Thursday, 30 June 2011

There will be an interesting programme of talks, a sit down lunch and plenty of opportunities to catch up with colleagues. The cost is £55, including VAT, Please contact penny.jagger@rcophth.ac.uk for further details.

Obituaries

We note with regret the death of:

Mr Michael Absolon of Gloucester, Gloucestershire

Mr Shaikh Mohammed Kamaluddin of Prestatyn, Clwyd

Dr T Stafford Maw of Sheffield, South Yorkshire

Mr Andrew H McAdam of Kings Lynn, Norfolk

New President for the EBO

Mr Wagin Aclimandos is the President of the European Board of Ophthalmologists.



**HS JOHN WEISS
INTERNATIONAL**

A history of quality craftsmanship

from 1787



Presenting our latest catalogue and a range of surgical instruments that provide ophthalmic surgeons with the precision they demand, the uncompromising quality they expect and the innovation they inspire.

The NEW John Weiss catalogue is now available online, on CD or in the traditional printed version, essential for all ophthalmic clinics, theatres and procurement departments.

To request your copy please call

01908 318017
or visit www.johnweiss.com

Ophthalmic Surgical Instruments

John Weiss & Son Ltd.

89 Alston Drive, Bradwell Abbey, Milton Keynes, MK13 9HF, United Kingdom
Tel: +44 (0)1908 318 017 Fax: +44 (0)1908 318 708 Web: www.johnweiss.com

Focus



Spring
2011

An occasional update commissioned by the College. The views expressed are those of the author.

The Surgical Management of Infantile Cataract

Susmito Biswas, FRCOphth
Manchester Royal Eye Hospital,
Manchester.

Background: The incidence of congenital and infantile cataract in the UK has been estimated to be 2.49/10 000 by the age of 1 year.¹ Worldwide, the incidence has been estimated to be between 1 and 13 cases per 10 000² and the prevalence of blindness resulting from this is between 0.1 to 0.4 per 10 000 contributing to approximately 10% of all childhood blindness worldwide.² Such cataracts may not be visually significant at birth but may progress in the first year of life. Congenital and infantile cataracts have a diverse aetiology, which includes genetic, environmental or metabolic factors. Most unilateral and around half of bilateral cataracts are idiopathic. Some may be isolated whilst others are associated with other ocular or systemic disorders. Whether a cataract is visually significant depends on its morphology, size, position and density. The decision to operate will depend on clinical judgment as to whether there is significant visual deprivation. Controversy exists around almost every aspect of the management of this disorder, highlighting the need for good quality data and prospective studies to resolve some of these issues. Primary intraocular lens (IOL) implantation for congenital and infantile cataract continues to increase in acceptance. A recent survey of ophthalmologists in the UK and Ireland revealed that only a minority of surgeons who operate on infantile cataracts (25%) would not implant children less than 1 year of age.³

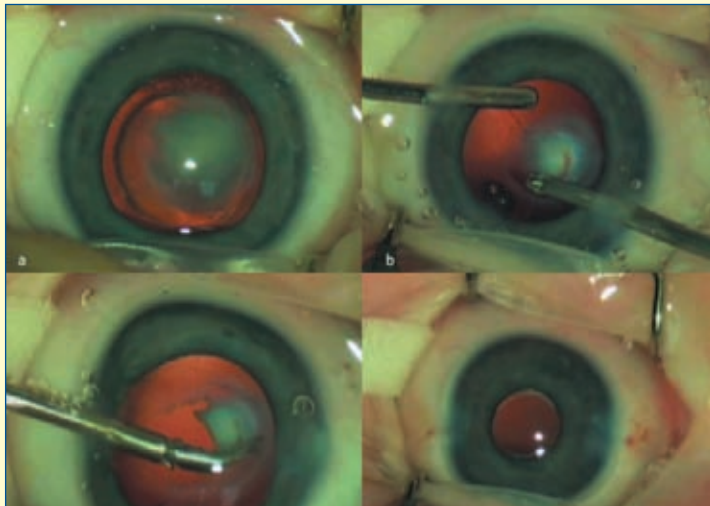
Critical Timing: Animal studies have established a latent and sensitive period for cortical visual development. Within the first 6 weeks a primitive, sub-cortical visual pathway predominates. A bilinear relationship between age and visual outcome from unilateral cataract surgery has been shown to be 5.6 weeks corresponding to this period of sub-cortical pathway dominance. It is now fully accepted that for unilateral congenital cataracts, removal of the cataract before the end of this 6 week latent period, combined with intensive occlusion of the fellow eye, is associated with a better visual outcome. A latent period for bilateral cataracts is not well defined. Lambert et al.⁴ attempted to

refine this period in a series of 43 children with bilateral cataracts. Infants operated upon after the age of 10 weeks had a significantly greater chance of an unfavourable visual outcome (vision of 6/30 or worse) than infants operated upon before the age of 10 weeks. However, this did not reach statistical significance. The most significant predictive factor for poor visual outcome was the presence of pre-operative nystagmus. Even with early surgery, long term follow-up shows that infants with major form deprivation cataract can still go on to develop nystagmus irrespective of laterality. However, with early surgery the nystagmus tends to be a manifest latent or latent nystagmus, a more favourable form of nystagmus in terms of visual outcome. The critical period for fixation stability may be as early as 3 weeks.⁵ Jain et al.⁶ measured visual acuity at 5 years in a cohort of 13 infants undergoing surgery at a mean age of 8.7 weeks (range 3 – 20 weeks). Visual acuity outcomes decreased exponentially with the age at surgery with no clearly defined latent period. In contrast, Birch et al.⁷ found a bilinear relationship of visual acuity with age at surgery, with a breakpoint of around 14 weeks. In their series of 37 patients treated for dense bilateral cataracts they estimated that there would be a 1-line decrease in the final LogMAR acuity for every week that surgery is delayed in the first 14 weeks. Between 14 weeks and 31 weeks, no significant relationship between age and final acuity could be demonstrated. These studies indicate that there is no defined latent period for visual development in the case of bilateral cataracts. Instead there is a progressive decrease in visual outcomes with delay to surgery, i.e. the earlier the surgery, the better the chance of achieving a good visual outcome. This does come at a cost with a significant likelihood of developing secondary membrane and a trend to greater rates of glaucoma with early surgery (before 4 weeks) compared to later surgery.^{7,8} It may therefore be safer to defer surgery for bilateral cataract until after the first 4 weeks.⁸

Refractive Targeting: Unlike the adult eye, the infant eye

grows rapidly in the first year to 18 months. Emmetropisation is an active process whereby the refractive power of the eye typically adjusts from a state of hyperopia in infancy to near emmetropia in later childhood. This is contributed to by a flattening of the cornea, axial elongation and relative reduction in lens curvature. This growth pattern may become abnormal in the presence of infantile cataract. This may be influenced by such factors as age at surgery, laterality of cataract, visual deprivation, amblyopia and whether an IOL is implanted. The greatest rate of change in axial length occurs within the first year at a rate of 0.62mm/month in the first 6 months followed by a rate of 0.19 mm/month between 6 and 18 months.⁹ The literature gives conflicting results for the effect of pseudophakia on axial growth.¹⁰ However, these studies all show that there is a large myopic shift observed in eyes operated upon in the first year, which increases with decreasing age at time of surgery. This is largely influenced by axial growth without the compensatory reduction in the curvature of the lens due to aphakia or pseudophakia.

The choice of IOL power to implant is less than straightforward. Aiming to leave the infant eye emmetropic following surgery, whilst providing a better focussed image immediately post-operatively, is likely to lead to high myopia at a time when amblyopia still remains an issue. Most surgeons aim to leave infants undercorrected, i.e. hyperopic. The amount of undercorrection is dependant on the age of the infant. Variation in practice is also apparent with



A congenital cataract secondary to persistent hyperplastic primary vitreous (a), is removed using a bimanual aspiration / cutter technique (b). The thickened, plaque-like posterior capsule required manual excision with intra-ocular scissors (c), before placement of an MA30 IOL within the capsular bag (d).

regards to this. Some authors advocate implanting an IOL that corrects 80% of the power needed to give emmetropia¹¹ whilst most would advocate a targeted refraction of around +8.00 dioptres, if operating between 4 – 6 weeks of age, +6.00 dioptres at 6 weeks.¹² The most appropriate biometry formula to use in infants also remains unresolved. Most surgeons undertake biometry immediately prior to surgery where fixation in an infant under anaesthesia is not possible and where corneal curvature in a non-rigid infant eye may be easily altered by anaesthesia-induced hypotony. A variety of adult biometric formulae have been applied to calculate IOL power for infants. Different authors give conflicting results from back-analysis of multiple biometry formulae. It is clear that, in infant eyes, the use of adult formulae can lead to a

significant proportion of eyes having wide prediction errors, with most formulae tending to undercorrect post-operative refractions. This underlines the need to develop more specific paediatric biometry formulae.¹³ Following IOL implantation the infant posterior capsule would inevitably undergo rapid opacification due to lens epithelial cell (LEC) proliferation. Therefore a primary posterior capsulotomy or primary posterior continuous curvilinear capsulorhexis is typically performed. The well-formed anterior vitreous face can also act as a scaffold for LEC proliferation and most surgeons would additionally perform a shallow anterior vitrectomy, although some may consider capturing the optic within the opening of the posterior capsule. Whichever way this is managed, this can be one of the most technically challenging parts of the procedure.

Infant Aphakia Treatment Study: Controversy remains regarding the safety and efficacy of lens implantation in infants. Until recently no randomised clinical trials comparing implantation to contact lens correction of aphakia had been carried out. The Infant Aphakia Treatment Study (IATS) recently published its 1 year outcomes.¹⁴ Briefly, this prospective, multicentre, randomised clinical trial compared the outcomes of lensectomy with contact lens correction of aphakia to primary IOL implantation in infants with visually significant (>3mm) unilateral congenital cataract operated upon within the first 7 months of life. The primary outcome measure of visual acuity was measured using grating acuity cards (Teller acuity cards) within 2 months of their first birthday. This demonstrated slightly better median visual acuities in the aphakic infants (0.80 LogMAR) versus the pseudophakic group (0.97 LogMAR), although the difference of 0.17 logMAR did not reach statistical significance. Of note, the self-reported compliance with prescribed patching regimes did not show any significant difference between the 2 groups. However, compliance with refractive correction was lower in the pseudophakic group (58% of waking hours) in comparison to the aphakic group (80% of waking hours wearing contact lens). IATS also highlighted the significantly greater number of intra-operative and post-operative adverse events and additional surgical procedures, usually to clear secondary membranes or visual axis opacity, occurring in the pseudophakic group. At first glance the 12 months outcomes of the IATS do not seem to support the use of intra-ocular implantation for unilateral infantile cataract. However, longer follow-up (at around 5 years) will provide a better comparison. Compliance with refractive correction in the two study arms may reverse as children get older, with the contact lens managed group becoming less compliant than the pseudophakic group. This may lead to a better visual outcome for the pseudophakic group. The issue of glaucoma risk also remains unresolved at this juncture, but will become clearer once the 5 year outcomes are published.

References:

1. Rahi JS, Dezauteux C. Invest Ophthalmol Vis Sci 2001; 42: 1444–8.
2. Foster A, Gilbert CE, Rahi JS. J Cataract Refract Surg. 1997;23:601–604.
3. Solebo AL, Russell-Eggitt I, Nischal KK, et al. Br J Ophthalmol 2009;93:1495–8.
4. Lambert SR, Lynn MJ, Reeves R, et al. J AAPOS 2006;10:30–6.
5. Abadi RV, Forster JE, Lloyd IC. Vision Research 2006;46:940–952.
6. Jain S, Ashworth JL, Biswas S, Lloyd IC. J AAPOS 2010;14:31–4.
7. Birch EE, Cheng C, Stager DR et al. J AAPOS 2009;13:67–71.
8. Vishwanath M, Cheong-Leen R, Taylor D et al. Br. J. Ophthalmol. 2004;88:905–10.
9. Trivedi RH, Wilson ME. Invest Ophthalmol Vis Sci 2007; 48:471–4678.
10. Sminia ML, de Faber JTHN, Doelwijdt DJ et al. Br J Ophthalmol. 2010;94:547–50.
11. Dahan E, Drusedau MU. J Cataract Refract Surg 1997;23:618–23.
12. Ashworth JL, Maino AP, Biswas S, Lloyd IC. Br J Ophthalmol. 2007;91:596–599.
13. Nihalani BR, VanderVeen DK. Ophthalmology 2010;117:1493–9.
14. The Infant Aphakia Treatment Study Group. Arch Ophthalmol. 2010;128:810–8.

Medical ophthalmology and ophthalmology: partnering ophthalmic care for the future

Medical ophthalmologists have been practising in the UK for over two decades, usually managing inflammatory, neurological and endocrine disorders of the eye particularly in the context of systemic disease. There has been a strong academic interest. Medical ophthalmologists work alongside mainstream ophthalmologists, and in some units deliver identical care in general and sub-specialist ophthalmology as a part of their working week. They do not normally undertake surgery but perform procedures such as laser and intravitreal injections.

Over the last decade or so the Joint Royal College of Physicians Training Board (JRCPTB), which has responsibility for delivering Medical Ophthalmology training, has developed successive curricula with a broader remit to provide training in ophthalmology and general medicine. The aim is to enable a holistic approach to patient care. Medical ophthalmologists now manage medical retina conditions including age-related macular degeneration, diabetic retinopathy and inherited retinal disease care, manage diabetic retinopathy screening programmes and look after inflammatory disease of the cornea and orbit.

With newer treatments becoming available, such as intravitreal therapies for retinal disorders and biological agents for inflammatory disease, it is important that there is an

integrated strategy for specialists providing such ophthalmic care.

A recent meeting to discuss medical ophthalmology involved the JRCPTB, the RCOphth, the Medical Ophthalmology Society UK (MOS UK) and many practising and trainee ophthalmologists and medical ophthalmologists. An agreement between the three organisations has been made to gradually expand the numbers of medical ophthalmologists from 12 to 100 in the UK by increasing the number of training posts to between 16 and 20. Training and certification will be brought closer together through curriculum and examination development between the JRCPTB and the RCOphth, and parity will be sought for all.

There has never been a more exciting time to become a medical ophthalmologist and we look forward to medical ophthalmologists continuing to provide high quality ophthalmic care alongside their ophthalmologic colleagues.

If you would like more information about medical ophthalmology, please visit www.jrcptb.org.uk/specialties/ST3-SpR/Pages/Medical-Ophthalmology.aspx

Dr Richard Gale, Chair of the Specialist Advisory Committee on Medical Ophthalmology

The Ophthalmic Training Club: 'First Do No Harm' – then what?

Report on 'A Thousand Years of Wisdom' – Saturday 20 November 2010, held at The Royal Society of Medicine, London

The goal of the Ophthalmic Training Club (OTC) is to encourage camaraderie among ophthalmologists in an otherwise competitive specialty. To achieve this, the successes of previous OTG annual events provided the foundations by looking at issues of particular relevance to trainees.

Almost 100 delegates heard various speakers provide practical guidance on organising sub-specialist fellowships based on their experience in the UK and overseas. Tips on passing the Fellowship Assessment were provided by examiners and an announcement was made about the OTG Fellowship database for the benefit of trainees. Two medico-legal experts shared their knowledge about how to avoid difficulties and understand what to do when things go wrong.

The College sets standards and also examines knowledge and assesses skills. However, the attitudes and behaviour of doctors are also fundamental to good practice. Therefore most of the meeting schedule was set aside for various speakers to share what they had learned in their personal and professional lives.

It was with great sadness that Mr Lee's sudden death days before the meeting mandated the change in the timetable. Miss Brenda Billington was kind enough to step in at short notice and delivered a memorable eulogy. Obviously, no meeting can truly deliver 'A Thousand Years of Wisdom' in a few hours. It is, however, through their day-to-day practical example that exceptional teachers share their wisdom with their students and also influence attitudes and behaviour. In that way in a sense Mr Lee lives on through his shared experiences with family, patients, colleagues and his students. Perhaps then the rule should be 'Second Do Some Good'.

*Mr Faisal Idrees
OTG Chairman to November 2010
MSD (Merck Sharp & Dohme Limited) provided an educational grant and technical support.*

Membership information

Please contact database@rcophth.ac.uk if you get a new email address so that we can keep in touch with you.

New

VISALIS® 500

**There are
solutions ...
then there
is the Zeiss
solution ...**

- Modular phaco and vitrectomy system for anterior and posterior procedures.
- Captivating design with exceptional ergonomics
- Flexible and efficient performance technologies
- Excellent integration into the surgical workplace

Carl Zeiss Ltd
Medical Division

www.zeiss.co.uk

PO Box 78, Woodfield Road
Welwyn Garden City Herts AL7 1LU
Tel: 01707 871250 Fax: 01707 871366
E-mail: so-admin@zeiss.co.uk



We make it visible.

Article 14 – a significant route to the specialist register

Mr Zachariah Koshy is a consultant vitreoretinal surgeon who successfully applied through article 14 while a locum consultant, having trained in India and the UK. He gave a very informative talk at the October 2010 SAS National Eye Day and has written this article for a wider audience.

Article 14 is the shorthand for the process leading to a Certificate of Eligibility for Specialist Registration (CESR). Since its inception 59 ophthalmologists have gained entry to the specialist register through this route. Modernising medical careers recognised that the conventional training programmes limited entry for those with previous training and experience gained elsewhere. The Article 14 route created an incentive for those out with conventional training programmes to gain accreditation of their training and experience, while at the same time avoiding wasteful duplication of training.

Article 14 works by accrediting the training found to be equivalent to that of the UK CCT standards. This can be from training, qualifications and experience gained from within the UK and or, out with. The applicant needs to prove that they have gained the required training as well being current with their knowledge and skills. Those who wish to pursue this route to specialist registration need to assess their current status with respect to the detailed and clear parameters outlined in the GMC and The Royal College of Ophthalmologists websites.

www.rcophth.ac.uk/page.asp?section=137§ionTitle=The+Profession

These sources provide a wealth of comprehensive information on the application process, the standard for accreditation and the evidence required. The successful applicant would establish in a clear, objective and systematic manner that the breadth and depth of their knowledge and skills meets the standards required of a consultant fit to practice in the UK. Evidence demonstrating participation in audits, research, 360* appraisal, sub-speciality experience, teaching, management initiatives and a robust CPD profile adds weight to the application.

Those maintaining a comprehensive appraisal folder would have a head start in the process. This also provides a valuable means to make up any perceived deficits in your portfolio with the support of the department you work in. It also minimises the loss of time in obtaining evidence in retrospect from previous posts. Embarking on this route is a major undertaking and a clear roadmap and timetable is likely to maximise the chances of success in the first attempt.

Ophthalmologists considering this route to the specialist register are advised to read the web document **"Frequently Asked Questions"** document from The Royal College of Ophthalmologists for CESR (CCT specialty) applications which stresses the importance of reading all the relevant documents in detail.

The General Medical Council uses its website to sound a note of caution:

It is very important that you do not submit your application prematurely. The biggest single reason why applications fail is because they are incomplete; perhaps because the applicant has not submitted sufficient or appropriate evidence to demonstrate that they meet the CESR criteria. It is much quicker (and cheaper) to take the time to gather all your evidence before you submit your application than it is to submit an incomplete application and be unsuccessful.

GMC consultation on fitness to practise reforms

The GMC has proposed major changes to the way it handles cases involving concerns about doctors.

Under the new process doctors could accept sanctions in fitness to practise cases without going to a public hearing; for those doctors who do not accept the sanction proposed by the GMC cases would still be referred for a hearing. The aim is to deliver a quicker system while still maintaining fairness to doctors and patients, and crucially, this will still be transparent – in every case the outcome, including the nature of the concerns and any sanctions will be published on the GMC website. The consultation document also proposes a more speedy process for dealing with doctors convicted of serious crimes such as murder and rape - the GMC argues that those who have committed such crimes are not fit to be doctors.

View the full document at www.gmc-uk.org/ftpreformconsultation, respond at <https://gmc.e-consultation.net/econsult> by **11 April 2011**

The Training Directory 2011

This online version is a succinct document available on the College website www.rcophth.ac.uk and replaces the earlier printed versions. Now that this document is online it will be easier to amend and College members are encouraged to correct or update local information by contacting the Education and Training Department, training@rcophth.ac.uk

The National Patient Safety Agency (NPSA)

The NPSA will cease to exist as a legal entity in March 2012 and the Patient Safety division has already been reduced in size. This is a matter of regret for the College. During this period of transition and transfer it is essential that patient safety incidents are still reported to the National Reporting and Learning System (NRLS), using current procedures. www.nrls.npsa.nhs.uk/report-a-patient-safety-incident Some work will move to the NHS Commissioning Board but, in the interim, the NPSA will be unable to provide a service to support individual enquiries on past alerts, produce new publications or meet requests for incident data (except those for which there is a legal obligation).

The next two articles are personal accounts of interaction with a teenager in Pakistan.

Iqbal lives in the remote village of Machulo, which lies at 3,000m in the Hushe valley in Baltistan, in the far north of Pakistan – a stone's throw from some of the highest mountains in the world. Life there is harsh, education is limited and gender equality restricted.

I met Iqbal when he was 13, in 2008, following a climbing expedition. I noticed immediately that he had problems with the bright light and I gave him my glacier glasses; the relief was instantaneous. Sadly, as is the way with teenagers, the glasses didn't last for ever.

In 2010 I returned to Machulo, this time to help in the village's schools. I took with me an illuminated magnifying glass which I hoped would help – I had sent out a vision test in advance to determine the strength of lens required. It was an instant hit. In my five weeks in the village, Iqbal became my shadow and I saw at firsthand the difficulties in his daily life. I decided to see what help I could get for him on my return to the UK – to get a diagnosis at least. Back home, I contacted Mr Adam Booth from the Royal Eye Infirmary Plymouth and, given the political difficulties of bringing young adults to Britain, I also met with our local Member of Parliament, Dr Sarah Wollaston. She enlisted the help of the President of the Royal College of Ophthalmologists in London, who, together with Mr Booth, put me in contact with two excellent ophthalmic specialists in Islamabad and Lahore.

The next challenge was to get Iqbal and his uncle down to Islamabad. Following the devastating floods, four of the five generators in Iqbal's part of Baltistan were out of action – communications were difficult! But, with the unstinting help of a couple of village men and the generous assistance of our expedition agent, we got Iqbal and Uncle Hussain down to Islamabad for an appointment with Professor Imtiaz. The serious work could begin.

Clare Gillespie

This is the story of a boy named M. Iqbal – a 15-year-old boy who lives in the far-flung areas of Northern Pakistan called Baltistan. He was sent to me by Clare Gillespie and when I saw this boy last year and his visual acuity was CF 'counting finger' in both eyes. He had a left divergent squint of 21 degrees and he had nystagmus which was pendular in nature. On mydriatic examination, he was found to have a very severe retinitis pigmentosa. There was nothing that I could do for him except to offer supportive treatment. I provided him with myopic spectacle correction, which helped him see a little better and made him happier.

The disease of retinitis pigmentosa is rampant in Pakistan because of consanguineous marriages. There is lot of molecular research going on to eliminate this disease but unfortunately there has not been any significant progress. Thousands of families are suffering from this disease which is accompanied by involvement of other parts of the eye

like posterior sub-capsular cataract, vitreous abnormalities, high myopia and nystagmus. There is a special need for genetic counselling to tell families the danger of marrying within the family.

I hope the Royal College of Ophthalmologists will be able to set up a taskforce comprising ophthalmologists from Pakistan and UK to join hands in eliminating this disease.

Professor Imtiaz Ali



Iqbal with his uncle and Professor Ali

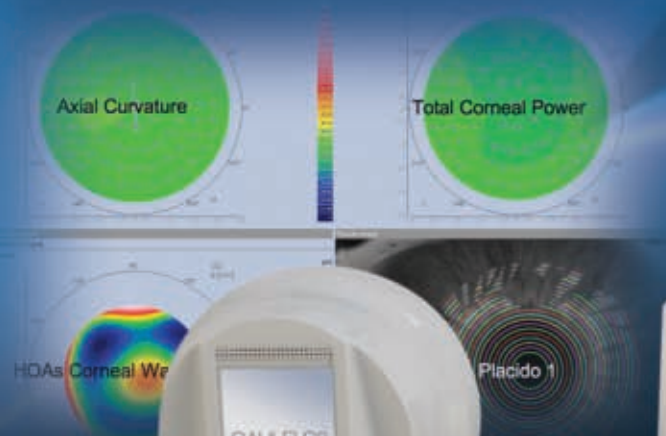
Self-sustainable hospitals for the developing world

Retired member Samar Das MBE FRCOphth has established the Guildford Rotary Eye Project. This charity forms local Rotary Club supervised partnerships to enable hospital buildings, plus one third of the cost of all equipment, operations and training, to be funded within the area of need. The balance is then provided by donations from supporting Rotary Clubs worldwide and grants from The Rotary Foundation.

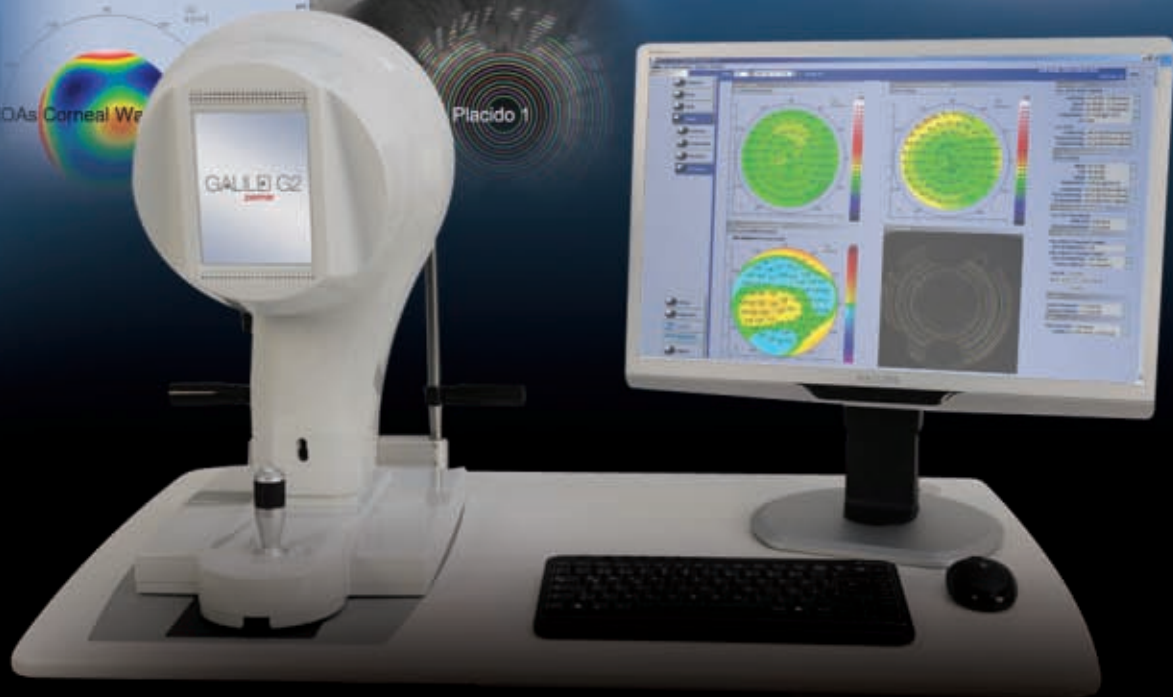
Surgeons from developing countries are trained in the UK, or elsewhere, who then commit to training their fellow countrymen to work for their own people. The first seven hospitals were established in India, while recently this self-sustainable strategy has been deployed in Nigeria with plans afoot to establish similar units in Bangladesh.

A comprehensive range of ophthalmic services is provided, with the cost of a cataract operation being just £15.

More information: samargfd@googlemail.com,
www.guildfordrotaryeyeproject.org.uk



ziemer 
OPHTHALMOLOGY



Galilei G2.

One Second Eye Exam. All Data in One 3-D Image.

The new GALILEI G2 performs a complete eye exam in less than one second; constructs a complete report and crisp, detail-rich maps and images in less than 30 seconds, offers over 40 customisable maps, reports and displays, and provides easier data-grabbing and processing.

The G2 is still the only Dual Scheimpflug/Placido system capable of merging and ray-tracing all data into a single 3D reconstruction, delivering superior accuracy in elevation, curvature, pachymetry, total corneal power and anterior chamber biometry. For a demonstration contact Carleton on (01494) 775811.

www.carletonltd.com



TRAVEL AWARDS AND FELLOWSHIPS

AWARD	AMOUNT	CLOSING DATE
Patrick Trevor Roper Undergraduate Travel Award 2011	Two awards of £550	3 June 2011
Dorey Bequest and Sir William Lister Travel Award 2011	c. two awards £400-£600 each	7 October 2011
Ethicon Foundation Fund Travel Award	Four to six awards of £400-£1000 each	4 November 2011

Information and application forms for all awards are available on the College website:

www.rcophth.ac.uk/awardsandprizes



Leading science for better health



An exciting new research training opportunity for trainee ophthalmologists in 2011

A new clinical research training fellowship (CRTF) specifically in the area of paediatric ophthalmology/visual sciences has been created, to be jointly funded by the Medical Research Council and the Ulverscroft Vision Research Group (UVRG).

The Fellowship will be included in the autumn 2011 round with a likely submission deadline of September 2011 but please check the MRC website:

www.mrc.ac.uk/index.htm

It will be awarded and administered through the usual MRC national processes. The successful applicant will be

an honorary member of the Ulverscroft Vision Research Group (at ICH/GOS) which brings access to the UVRG's academic resources.

As this will be the first CRTF supported by the MRC specifically in the area of paediatric ophthalmology/visual sciences – it is hoped that there will be good field of promising candidates with strong projects.

If you have any questions about this Fellowship, please contact Jugnoo Rahi (j.rahi@ich.ucl.ac.uk or tel 020 7905 2250)

Fulbright Fight for Sight Research Award 2012–2013

Eligibility: UK citizens holding a PhD (or completing their thesis by 2012) An interest in pursuing research into the prevention and treatment of blindness or eye disease at any accredited US higher education institution

Benefits:

- The award is for the US dollar equivalent of £75,000 (converted using the prevailing rate) paid in instalments directly to the grantee
- Limited sickness and accident benefit coverage
- Visa sponsorship and processing.

Apply: www.fulbright.co.uk. **Deadline: Tuesday 31 May 2011** More information: programmes@fulbright.co.uk

Fight for Sight is the UK's leading charity, funding research into the prevention and treatment of blindness and eye disease since 1965.



HONORARY FELLOWS

At the Admissions Ceremony in September 2010, an Honorary Fellowship was awarded to Mr Paul Hunter. This is an edited version of the citation given in his honour.

It is a great pleasure to give a citation for someone with whom I have worked as a SHO, as senior registrar and as colleague consultant over a period of 28 years. I very strongly believe in loyalty to anyone who has ever taught me anything. Paul has taught me a lot. It is difficult to summarise Paul Hunter's career in a few minutes. I will present an overview of his CV and then touch briefly upon his main attributes as a clinician, as a diplomat with a good sense of humour and as a family man.

Paul was born in Leeds and studied at Queens' College, Cambridge. In 1966 he joined the Middlesex Hospital Medical School, now part of UCL, and by 1970 he had a BA, MB BCh and MA. He started his training in ophthalmology at Barts, then moved to the Western Eye. He was a Resident at Moorfields and then Senior Registrar at the Middlesex Hospital. He was appointed Consultant Ophthalmic Surgeon at a top Teaching Hospital in London, King's College of course!

Paul is a long-standing member of several groups and learned societies including the Oxford Ophthalmological Congress, the Ophthalmic Club, the International Medical Group and the Southern Ophthalmological Society, of which he was President in 1995.

Paul has been very actively involved with the College and prior to that with the Ophthalmological Society of the United Kingdom (OSUK). He became a Foundation Fellow of the College in 1988 and held the posts of Programme Secretary, Honorary Secretary, Vice President and Chairman of the Professional Standards Committee and in 2000 he was elected President. He has also acted as Honorary Treasurer of The Academy of Medical Royal Colleges from 2001–2008. In 2002 he was awarded the Honorary Fellowship of the Royal College of Physicians of London and he has been awarded the Fellowship of the European Board of Ophthalmology.

Throughout this very busy and illustrious political career, Paul has remained an outstanding clinician. He has been at the forefront of corneal transplantation and the combination of knowledge, astute observation and common sense makes him an excellent teacher. With David Spalton and Roger Hitchings, he produced in 1984 "An Atlas of Clinical Ophthalmology", still regarded as a top class educational and reference source. It won the Abbott prize for medical writing in 1985 and its latest edition won the BMA Medical Book of the Year Competition in 2005.

Paul has a long list of publications. I thought it was quite revealing that his first publication with Barry Jones in 1976 in the Transactions of the OSUK, was 'Neglected Lid Deformities causing Progressive Corneal Disease' and his latest publication in EYE is 'Giant Fornix Syndrome: a



*The 2010 Honorary Fellows and President:
Mr John Scott, Mr Tim ffytche, Mr John Lee and
Mr Paul Hunter*

recently described cause of chronic purulent conjunctivitis and severe ocular surface inflammation with a new diagnostic sign on CT'. Both are examples of his observational skills and indicate a keen interest in the anterior segment of the eye spanning over more than 30 years. Paul has also delivered over 30 presentations and guest lectures at a wide range of national and international meetings and societies.

Paul the diplomat is a very sociable person with a great sense of humour. You may be familiar with the saying that, 'a diplomat can tell someone to go to hell in such a way that they look forward to the journey'. Well Paul can even better this; you may find yourself writing to him from Hell thanking him for all his help.

And finally a few words about Paul the family man. Behind every successful man there is a surprised lady. Lizzie, too, is a perfect diplomat and she has the patience of a saint. She obviously needs it... that is because she is dedicated to teaching disadvantaged children. Their own children, Rebecca Lucy and Adam Thomas, have both done exceedingly well. Becky is married and now looks after thousands of children as a paediatrician. She has three children of her own. Adam is presumably even brighter as he went into finance and so far has managed to avoid the marriage institution!

In summary, Paul is a great clinician and surgeon. He is an accomplished diplomat who has been a founder of our College and has served it over a period of 20 years in several roles including being President from 2000 to 2003.

Mr President, I command to you Mr Paul Hunter for Honorary Fellowship of the College.

Mr Wagih Acimandos

SD HEALTHCARE

Specialists in
Single-use procedures

High Quality Instrumentation • Flexible on Quantities • Professional Service

Brand New Every Time

Individual Instruments

Quality Single-use
Sterile Ophthalmic
and Refractive
Instruments

Complete Packs

I/A's

surgitrac
instruments

THE BASIC SKILLS SUPPLEMENT

The skills tutors' tale

The Basic Surgical Skills Course

The modern facilities and advanced teaching techniques on the College Basic Surgical Skills Course belie their humble origins in Stoke Mandeville 20 years ago. Although the courses have evolved, as has the technology, the fundamental principles remain unchanged.

The philosophy

The original philosophy of the course, which has been maintained to this day, was to teach the most basic surgical techniques properly, and to encourage and support trainees in gaining access to regular hands-on practice of fundamental skills. This includes training in suture placement, knot tying, wound construction and learning how to handle tissues both within and outside the eye. All the courses are delivered by experienced senior surgeons and, from the start, it has been a requirement that they all attend the course as trainees before teaching on it.

Very few such trainers have passed through the course without being surprised to learn something very fundamental that they had never realised they didn't know! Through the two days trainees practise on 'skills boards' designed specifically for the course, which facilitate knot tying and suture placement, as well as on porcine eyes and eyelids.

Evolution

The original courses at Stoke Mandeville necessitated all kinds of ingenious improvisation to bring together all the equipment and expertise needed, and it is a credit to the pioneers and their support from colleagues, equipment suppliers and nurses that the project was the success it turned in to. As the courses became more popular, more permanent facilities were established at Stoke Mandeville, and other wet-labs developed around the country. In 2003 the Simplyhealth Skills Centre was opened at the Royal College by our patron, HRH The Duke of York, supported by the generosity of a number of equipment manufacturers. This is a dedicated training facility providing 9 workstations complete with modern phaco machines, operating microscopes and video linking between them all and since then has been the hub of surgical training at the College. The two-day course in basic surgical skills now links with a third day comprising training specifically in phaco cataract surgery. The safe environment of a skills centre allows trainees to rehearse surgical manoeuvres with senior support and advice. The ratio of trainers:trainees has always been maintained at 1:5 or better and, although mandatory, the course has never been used as an assessment of trainees – encouraging an open and friendly environment in which they can make mistakes and ask questions without anxiety.

Entering Cyberspace

One of the fundamental tenets of the skills courses has been to listen to trainee feedback, and a constant theme of this has always been that it is hands-on practice that is most appreciated. There are some theoretical principles that need to be understood first, however, before practice is meaningful. Over the last two years, the College has

introduced e-learning to the skills courses, such that trainees can undertake an interactive preparation for the course online, freeing more time for practical training when they attend the College. Their use of the e-learning can be monitored to ensure all have completed it, and also to assess if there are any sections of it which they find difficult, which can be concentrated on during the course.

In addition, the recent purchase of the EYESi virtual reality simulator facilitates practice of difficult steps in cataract surgery, such as capsulorhexis, in a 3-dimensional simulated environment. This valuable teaching tool complements the training in the classroom and Simplyhealth Skills Centre.

The Future

Whilst service and economic pressures continue to impose increasing demands on time for seniors and their trainees alike, it is important that we retain a commitment to training the surgeons of the future. Embracing new technologies such as e-learning and surgical simulators goes some way to enhancing the quality of training. The simulator in particular lends itself to local training, and increasing uptake of these around the country should make some aspects of training more complete. It is imperative, that however, as a surgical body we ensure that the rhetoric of quality in training is realised, and this can only be achieved by the continuing commitment of us all to supporting practical training outside as well as within the operating theatre.

*Mr Mark Watts
College Skills Tutor*



The Simply Health Skills Centre at The College

The developers' tale

The idea - Intraocular Surgery in Cyberspace

Scientists from the Universities of Mannheim and Heidelberg demonstrated how eye surgery could be taught in a highly realistic way by using a computer-based simulator at the American Academy of Ophthalmology in 2000. The prototype, named Eyesi Vitreoretinal for operations on the retina and vitreous body, was developed by a team of computer

scientists, physicists and medical specialists as part of a research project on “Virtual reality technology and medical simulations”. The goal was to develop a training system for medical trainees to practise surgical operations without risk to patients - similar to the principle employed in training pilots using a flight simulator.

High-End Technology for a Realistic Training Environment

Highly sophisticated hardware and software was needed for true realism and the simulator was designed from first principles. The surgeon sits at a binocular microscope, similar to that in an operating theatre, and is presented with a three dimensional view of a virtual eye, which can be operated on using virtual instruments. The images obviously need to be generated by the computer.

The model head of the simulator contains an optical tracking system that follows the movements of colour marks on both the model eye and the tips of the instruments with three calibrated cameras. This supplies the position and the orientation of the eye and instruments to a computer, where 3D reconstruction takes place. The instrument movements are tracked with an accuracy between 10 - 60 microns.

Powerful algorithms were developed for Eyesi that calculate in real time the behavior of fluids and tissue upon collision with the instruments and after tearing or deformation. The whole simulation project comprises 3.8 million lines of code. One challenge was to keep the time delay of visual imaging below the human perception threshold of 50 to 100 milliseconds. The simulated images created by the PC for left and right eye then are shown on two OLED micro-displays in the operating microscope.

The Success Story

The feedback following the prototype presentation in 2001 encouraged the research team to develop the product to series maturity and create the company VRmagic GmbH. In 2005, VRmagic expanded the platform with a training interface and software modules for surgery in the anterior segment of the eye. Today, Eyesi is used for intraocular surgery training all over the world. Embedded Eyesi curriculums provide training courses for new and advanced trainees and combine abstract exercises of basic skills training with training of actual surgical procedures. Evaluation tools provided by Eyesi permit objective, detailed assessment of the surgical performance.

Meike Hummerich

VRmagic GmbH, Augustaanlage, 32, 68165 Mannheim, Germany

The pilot's tale

I was an RAF Flight Lieutenant flying Tornado aircraft for four years before becoming an instructor, and subsequently moving to commercial aviation as a captain on passenger aircraft. Following basic training, RAF pilots are streamed into Groups I to train on fast jets, Group II to train for multi-engine aircraft and Group III for helicopters. Group I is generally regarded as comprising the most capable pilots, and following selection,

they undergo 120 hours of training in the air on the Hawk aircraft. Roughly the first 60 hours is used to learn advanced flying techniques in the high speed environment, and includes training in low level navigation and close formation flying. The remaining flying hours concentrate on tactical formation and use of weapons. On completion of this, pilots are streamed again on to the type of fast jet they will fly, which in my case was the Tornado. A further 60 hours is spent in this aircraft before training is completed to a level where a pilot may join one of the front line squadrons. Training continues on the squadrons.

Every 60 days, military pilots spend an hour in a simulator undergoing further assessment and training. Simulators have become more sophisticated since I trained, and the RAF now has simulators which can create full 360 degree visuals, as well as every potential aircraft or weather-based situation that a pilot will encounter. Some jet simulators can even be programmed to fight against each other!

Training as a commercial pilot is slightly different; simulators play a much larger role and they are a vital part of familiarisation with new aircraft and ongoing training. On moving to a new type of aircraft, a pilot undertakes 10 four-hour sessions in the simulator, familiarising himself with the new aircraft and practising handling of abnormal situations and emergency procedures. A pilot never undertakes a normal procedure in the air that he has not practised first on a simulator and most abnormal or emergency procedures are also covered. Every six months, a commercial pilot is required to undergo mandatory continuation training. This comprises two four-hour sessions in the simulator, the content of which is prescribed by the Civil Aviation Authority (CAA). Some of the training will be determined by direct feedback from the obligatory reporting of incidents to the CAA, such that they can ensure all pilots are conversant with developing situations, technology and procedures that may not have been handled well.

Phil Bosworth

The trainers' tale

Methods for teaching and training in cataract surgery

Motivation is the cornerstone for successful learning and a trainee must be aware of the plethora of self-directed training resources available in addition to any in-house training programme. These include: on-line multimedia sites that offer video and downloadable documents, guidelines and surgical curricula, the surgical techniques sections of peer-reviewed and non peer-reviewed journals, well-illustrated, comprehensive and authoritative text books; DVD publications using high quality video; instructional courses and wet-labs at professional meetings and symposia. More recently, 3D cataract surgical simulators have become available and several studies report that they lead to a measurable improvement in performance.

There is enough material on cataract surgery to fill all the available spare time of any trainee. So the trainee has

to be selective and be guided by their mentors to make the most efficient and appropriate use of resources.

However, the most valuable and time-efficient of all training methods is direct supervision of the trainee by a senior surgeon with video recording of all cases. Looking at the effect of supervised training on intraoperative complications, a recently published study found that the complication rate of resident-performed phacoemulsification surgery fell by 50% after the first 40 cases and stayed the same for the next 20 cases.

Ideally the trainee will have considered the case beforehand, having examined the patient at the slit-lamp to assess the accessibility of the eye, corneal clarity, degree of pupil dilation, red reflex, status of zonules etc. Thus, the trainee can anticipate any specific challenges that may arise and decide how to manage them and determine what extra instruments or devices may be needed.

Under direct supervision by an experienced surgeon the likelihood of any intraoperative complications arising is minimised; with video recording, the trainer can offer immediate feedback of cases and the trainee can later review the video.

Case Selection & Pre-operative Assessment

This is probably the most important step in the overall management of someone with a cataract. The trainee has to learn to assess the patient's needs and exclude other causes of reduced vision. They then have to conduct an informed and informative discussion with the patient on the specific and quantifiable risks of surgery together with the realistic expected benefits and refractive outcome. Due to the 96% success rate of surgery, the intervention point has generally become earlier in the development of cataract. Consequently the patient's expectation for better vision post-operatively represents an increasingly difficult challenge for the surgeon, and the skills required to meet this challenge have to be instilled during training. Accurate biometry is a key step for hitting the target refraction within acceptable limits. Understanding the principles of optical and ultrasonic biometry together with the appropriate use of different formulae as well as its limitations and sources of error are therefore essential skills for the trainee.

Preparation for Surgery

The understandable desire to press on with the actual surgery is often pursued at the expense of the less exciting, but important, stage of preparation.

Trainees do most of their surgery using infiltrative anaesthesia, either peribulbar or sub-Tenon's. They need to understand how to perform both of these techniques safely and effectively. Topical anaesthesia is generally used once the surgeon has reached a level of confidence and competence and is at the level of performing solo surgery. The application of 5% povidone iodine in the conjunctival sac for at least 2 minutes pre-operatively is of undisputed benefit in reducing the risk of postoperative endophthalmitis and should now be considered as routine practice.

Careful positioning of the patient on the operating table is essential in order to ensure that both patient, and surgeon as well as the microscope are correctly and

comfortably positioned. Taping of the head is an optional manoeuvre that stabilises the head position and most patients appreciate the security they feel in knowing that they are less likely to move their head during surgery. Scrubbing, gowning and gloving are usually familiar to trainees from early training but should be supervised at first to ensure compliance with standards.

Surgical Skills

The surgical component of the cataract patient pathway is often viewed as the most important part of the process but the whole pathway must work well for sustainable good results to be obtained.

It takes approximately 10,000 hours to become an expert at virtually anything and trainees should not be reliant on "live surgery" during their working week to practise surgical skills. As a trainee becomes more experienced, they are usually able to take on more and more complex cases thus further improving their expertise. However, the judicious use of skills labs and simulators has been shown to speed up the process.

The College skills head and skills board are available for a reasonable price and last many years. Simulators, as introduced on the College mandatory skills course, give trainees a flavour of real surgery. All the steps of a modern cataract operation can be simulated on animal or plastic eyes.

Our advice: All eye units that carry out training should install equipment to allow trainees to practise other than on live patients.

Post-operative Care: Wound hydration (or suturing) ensures that the cataract wound is watertight and does not allow ingress of external fluids and thus environmental pathogens.

Urgent access to emergency facilities in case of complications is mandatory and staff and trainees need to be aware of the symptoms and signs of early post-operative complications and be prepared to see such patients urgently if necessary. Access to examination of post-operative cases is an important part of the training for cataract surgery. Trainees should know what such eyes look like and be aware of the possible short, medium and long term problems which may arise, such as optical aberrations, chronic cystoid macular oedema etc. etc.

Auditing Outcomes

Trainees must understand the importance of outcome audits.

Summary: Potential facilities and methodologies for teaching and training in cataract surgery have never been better. Paying structured attention to the basics will speed up surgical skills acquisition.

*Mr Brian Little and
Mr Larry Benjamin*

The curators' tale

Teaching ophthalmic surgery: the early years

The earliest recorded reference to the practice of eye surgery is in the Codes of Hammurabi, the ancient collection of 282 Babylonian laws written about 1780 BC. For the ophthalmic surgeon, let alone a novice learning the skill, the Codes were none too encouraging.

First the good news expressed in law 215'....if he opens an abscess in the eye of a man with a bronze lancet and save that man's eye, he shall receive ten shekels of silver (as his fee).'

But the bad news is in law 218'....if the physician open an abscess in the eye of a man with a bronze lancet and destroys the man's eye, they shall cut off his fingers.' For operating on a slave the penalty of the loss of the eye was less draconian with just the payment in silver of half the man's worth.

Ophthalmology as a specialty commenced in the early part of the 19th century. Before that the practice of eye surgery was undertaken by general surgeons and itinerant quack oculists such as the royally approved but uneducated Read, Grant and the greatest of all, the self-styled "ophthalmiator", Chevalier John Taylor.

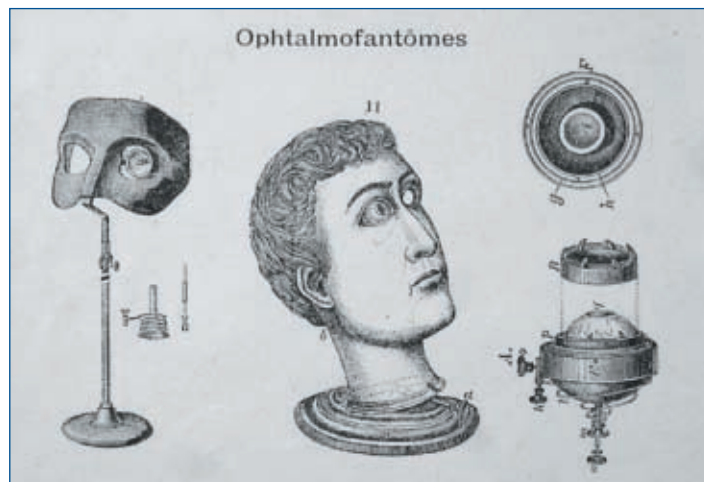
The early training in ophthalmic surgery was by apprenticeship to a general surgeon, as John Cunningham Saunders, the founder of Moorfields, was to the great Sir Astley Cooper. Saunders went on to become one of the first ophthalmic specialists and set up training at Moorfields shortly after it was founded in 1805. By 1828 no less than 1,000 students had been trained.

In the second half of the 19th century introduction to the specialty was by recruitment from a medical school to become a 'dresser', as happened at the Bristol Eye Hospital. These dressers prepared the patient for the surgeon and



Students watching eye operation

Phantom for Strabismus



French Phantoms

often administered the anaesthetic and, by close association, they learnt the skills of eye surgery. One of the earliest dressers was Robert Doyne.

Phantoms for practising eye surgery, using pig's eyes, were used widely. These ranged from elaborate ones with the eye held in a full-sized model head to laboratory-type phantoms with masks. A special model for practising strabismus surgery made by John Weiss & Son was invented by Bishop Harman.

When the Royal London Ophthalmic Hospital moved to City Road in 1899, students could observe eye surgery from a railed gallery close to each side of the operating table. Scant attention seems to have been paid to cleanliness as the students watched the surgery at close proximity, their shoes being at the same level as the patient's head.

A plethora of books and atlases on eye surgery including Jacques Daviel's graphic description of his first extraction of a cataract in 1747 was the basis for the student to learn the skills of eye surgery.

Richard Keeler, Museum Curator, rkeeler@blueyonder.co.uk



Full mask phantom



Code of Hammurabi in cuneiform text

delivering surgical innovation

New Higher Density Brilliant Peel



Brilliant Peel, the CE marked non-toxic selective ILM dye has now been made even more effective with the inclusion of 'heavier' water in the composition resulting in a faster and more intense staining performance.

Altomed not only brings to you its own extensive instrument range, we also deliver to you leading world ophthalmic brands such as Sterimedix, Volk, Labtician and Mani.

Ask for a copy of our free colour catalogue and helpful price list.

Malyugin Ring

Gentle but significant pupil expansion using a device that is 'injectable' through the main incision. Useful in both cataract and vr procedures.



Reusable. Efficiently using resources and funds.

Using modern automated decontamination methods and the latest generation of trays such as Altomed Microwash, reusable instruments can be safely cleaned and sterilised without damage.

2 Witney Way, Boldon Business Park, Tyne & Wear, NE35 9PE. England
Tel: +44 (0)191 519 0111 Fax: +44 (0)191 519 0283
Email: admin@altomed.com Website: www.altomed.com

2011 CONGRESS

24–26 May
ICC, Birmingham

College Seminar Programme 2010

All College seminars and events take place at 17 Cornwall Terrace, unless otherwise stated.

10 June

Focus on DMO Regional Symposia
Chaired by Miss Susan Johnston
Northern Ireland

29 June

Focus on DMO Regional Symposia
Chaired by: Professor Yit Yang &
Mr Salman Mirza
Birmingham

7 – 8 July

Retinal Imaging Seminar

Chaired by: Mr Heinrich Heinmann &
Professor Yit Yang
The Institute of Physics, 76 Portland
Place, London

6 September

The Future Management of Glaucoma: Virtual Clinics, Electronic Patient Records and Shared Care

Chaired by: Professor James Morgan

15 September

Paediatric Amblyopia and Strabismus

Chaired by: Mr Mike Clarke and
Mr Robert Taylor

13 October

Medico-legal Seminar
Chaired by Professor Charles Clark and
Mr Graham Kyle

15 November

Revalidation in Ophthalmology

Chaired by: Mr Richard Smith

18 November

Elizabeth Thomas Seminar

Chaired by: Mr Winfried Amoaku
The East Midlands Conference Centre,
Nottingham

Please visit

www.rcophth.ac.uk/seminars
for further details.

Training the Trainers

Trainees in difficulty

6 June

21 November

Please visit

www.rcophth.ac.uk/trainingthetrainers
for further details.

College Tutor Induction Days

14 June

11 November

Seniors' Day

30 June

penny.jagger@rcophth.ac.uk

College Skills Centre Programme 2011

Details are on the website at

www.rcophth.ac.uk/bmscourse

New: Surgical Simulation Courses, to
be held at the Bristol University Centre
for Comparative and Clinical Anatomy
(CCCA).

24 June: Strabismus Surgery

25 June: Oculoplastic Surgery

Closing date: 29 April

Other Events 2011

23 May

UKISCRS Satellite Meeting

Thinktank, Birmingham
"Phacoemulsification and Beyond"
www.ukiscrs.org.uk
ukiscrs@ukiscrs.org.uk

26 – 29 May

35th British Contact Lens Association (BCLA) Clinical Conference and Exhibition

Manchester Central
contact lens fitting course for
ophthalmologists on 27 May
bcla.communications@virginmedia.com

16 – 17 June

British Oculoplastic Surgery Society Annual Scientific Meeting

Cardiff
Update for consultants and trainers on
15 June
www.bopss.org
nicola.parkins@wales.nhs.uk

23 - 24 June

British Ophthalmic Anaesthesia Society

Norfolk and Norwich University Hospital
www.boas.org
joy.brown@nnuh.nhs.uk

7 – 8 July

Cornea and Oculoplastics Course

Unit, Queen Victoria Hospital,
East Grinstead
cpcourse@qvh.nhs.uk
www.corneaoculoplasticscourse.org

7 – 9 September

41st Cambridge Ophthalmological Symposium

St. John's College, Cambridge
Chairman: John Dart
bm.ashworth@tiscalli.co.uk

1 October

OCULUS – Practical OSCE and viva revision for Part 2 Fellowship

Course Chair – Professor Phil Murray
Birmingham & Midlands Eye Centre
lisa.ford4@nhs.net
www.oculus-course.com

13 – 14 October

UKISCRS 35th Annual Meeting

Convention Centre, Southport
www.ukiscrs.org.uk
ukiscrs@ukiscrs.org.uk

18 November

MCLOSA (Medical Contact Lens and Ocular Surface Society) 18th Annual Scientific Meeting

One Great George Street,
Westminster, London.
chemmerdinger@google.mail

The Royal College of Ophthalmologists

17 Cornwall Terrace, London NW1 4QW
Tel. 020 7935 0702 Fax. 020 7935 9838
www.rcophth.ac.uk
Editor of Focus: **Professor Victor Chong**