



2016

IMI CONFERENCE

16TH - 17TH SEPTEMBER

CLYDEBANK • GLASGOW



Institute of
Medical
Illustrators

DELEGATE HANDBOOK



WELCOME FROM THE IMI CHAIRMAN

Welcome to the 2016 IMI Annual Conference, and to my home city of Glasgow. I was born and bred here and have spent all my working life in hospitals in Glasgow and the west of Scotland. It is humbling to look back at the medical advances that have come from this great city. John Macintyre opened the world's first hospital radiology department at Glasgow Royal Infirmary in 1896. Other leading figures include William Hunter, the anatomy pioneer, Joseph Lister who developed antiseptic surgery, and William MacEwen the renowned neurosurgeon. Many of you will have heard of the 'GCS' from medical dramas on television, however you may not know that this stands for the Glasgow Coma Scale developed in Glasgow's Institute of Neurological Sciences. Professor Ian Donald first explored the use of ultrasound in the 1950s after seeing it used in the Glasgow shipyards to investigate flaws in ship plates. Ultrasound has since become a routine aid in the monitoring of foetal progress during pregnancy and in many other conditions. The first 16mm film demonstrating the use of ultrasound in medicine was produced by one of our early Institute Chairmen, Mr Gabriel Donald.

The conference location this year is the impressive Golden Jubilee Conference centre, which is wholly owned by NHS Scotland. It forms part of the Golden Jubilee National Hospital, a major centre



for regional and national heart and lung services, orthopaedics and other key specialties.

Before the hospital and conference centre were built, the land was occupied by Beardmore's shipbuilding yard. They were industrial giants in Victorian Scotland, involved in aviation, railways, cars, and steelmaking as well as shipbuilding. The yard was taken over in 1930 by Babcock and Wilcox, before fabrication work finally ended in 1969. There is a saying here, 'the Clyde made Glasgow and Glasgow made the Clyde': the two are inextricably linked. Our conference this year will take on a distinctly ship-related theme to reflect Glasgow's heritage as the birthplace of some of the world's finest ships.

It has been a busy twelve months since I took over as your Chairman. I hope you agree that our professional regulation work is a major step forward, and that the positive outcomes to ourselves, our service users, and more importantly for our patients, will be welcomed.

Kathy McFall and her team have been working hard over the last year to bring you a programme packed full of inspiring speakers, enlightening workshops and a trade show full of the latest equipment. Conference is a fantastic time to meet up with friends old and new. I really hope you enjoy our few days together and feel invigorated after attending the highlight of the IMI year.

Stephen Palmer IMI Chairman

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WELCOME FROM THE 2016 CONFERENCE CHAIR

A warm welcome to Glasgow Clydebank, and to this year's IMI Annual Conference. I hope you enjoy the programme the team have put together, an intense two days of scientific and technical workshops and presentations, and professional and trade exhibitions. Networking with fellow professionals is always a valuable benefit of attending any conference, and the social programme has been put together with this in mind.

I would like to thank all those that have contributed in the planning of this event, in particular, the fantastic Conference Team shown below. A special thanks to all our presenters, and last but certainly not least, our professional trade exhibitors and sponsors who support us year in year out. Enjoy!

Kathy McFall IMI Conference 2016 Chair

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TRADE SHOW AND WORKSHOP PROGRAMME

Friday 16th September



Trade Show					
Venue	Arcoona				
0930-1630	Offical opening of the IMI 2016 Conference and Trade Show IMI Chairman				
Workshops and Professional Exhibition					
Venue	Inspiration 1	Inspiration 2		Innovation Centre	Inspiration 3
1030-1130	Indecent exposure Jason Candlin	Body painting and life drawing Karen Kirkness and Catherine Cant		Managing the future – the changing role of medical illustration Waba	Professional Exhibition
1130-1145	Break				
1145-1245	So you want to take a good portrait? David Bishop			Documentary filmmaking with DSLR cameras Keven Siegert	
1245-1400	Lunch				
1400-1500	So you want to take a good portrait? David Bishop	A guide to creating your online portfolio: promote your work and get noticed Annie Campbell		Waba User Group Meeting – update Waba	
1500-1530	Break				
1530-1630	Automated total body mapping Schuco Ltd.	Writing surgery Carly Dakin	CPD workshop Cat Lamoon	IMI Awards judges’ feedback and Q&A Catherine Draycott and Jerry Nayler	
Venue	Central Plaza				
1700-1800	IMI Bronze and Silver Awards Cocktail Hour				
1800-1915	Break				
Evening Social					
Venue	Waterhouse				
1915-	Murder Mystery Dinner				

IMI TRADE EXHIBITORS

Arcoona



IMI are delighted to welcome our Corporate Sustaining Members and associated attendees to our 2016 Annual Conference. The professional Trade Show will run in tandem with the workshops throughout the day, with free time-slots to give delegates the opportunity to browse all the stands. We would like to encourage everyone to make full use of this excellent opportunity to interact with all of the companies that tirelessly support our Institute, not only at Conference but throughout the year across all regions.



3dmd.com



ashgrovetrading.com



calphoto.co.uk



colourcom.com



wexphotographic.com



polecam.com



surfaceimaging.co.uk



theflashcentre.com



schuco.co.uk



europe-nikon.com



zeiss.co.uk



wabalogic.com



anovatechnology.co.uk



fujifilm.eu/uk

WORKSHOP PROGRAMME

Inspiration 1

1030-1130

Indecent exposure

Jason Candlin

In the old days we took photographs on film and if you got the exposure wrong by more than half a stop the result was pretty poor. Many a photographer has lost precious hours trying to resurrect a rubbish transparency or negative by copying and printing, only to be left with a flat muddy print with a very strange tonal range.

Now that we have moved into a digital world the problems of an incorrect exposure can be quickly fixed when the file is imported; if you favour a RAW workflow you have even more control using import software such as Camera RAW or Bridge, where you can correct exposure, white balance, highlights and shadows.

But is this really good practice or should we return to the dying art of taking light meter readings and correctly exposing our 'negatives'?

With a standard lighting set-up, we should be able to record a correctly exposed image with a full tonal range from shadows through mid-tones to highlights. This workshop, presented in a fully-equipped studio, will allow us to demonstrate and discuss correct exposure by way of lighting and camera setting control.



1145-1245 and
1400-1500

So you want to take a good portrait?

David Bishop

UCL Medical Photography /
Health Creatives

David is the photography services manager for UCL Medical Photography / Health Creatives at the Royal Free Hospital in London. He is very passionate about photography and specialises in corporate / and PR photography, notably in the fields of healthcare, research, teaching and events.

Many clinical photographers when asked if they can do a portrait will say 'yes, come along to the studio; we should be able to fit you in between patients...', not the best thing to say to a new prospective client and the studio hardly puts the subject at ease. The environmental portrait can help relax the subject (especially if the surroundings are familiar) and can also provide a multitude of props with which to help pose your subject and achieve a portrait with a difference.

Over the past few years David has refined his mobile portrait 'studio' and now regularly uses only speedlites to supplement available lighting.

This is a practical workshop where the audience will participate as models / subjects and assistants. With the use of a relatively minimalist equipment set up and through the demonstration of a few simple techniques David will show you how to take a good portrait photograph using available light and speedlites, together with how to position / pose the subject and use props to best effect.

A small selection of the photographs taken will be reviewed and discussed at the end of the session, together with some of the photographs taken on recent portrait projects.



1530-1630

Automated total body mapping

Schuco Ltd.

With an estimated incidence of over 14,500 cases per year (46% increase in the last decade), the screening and monitoring of malignant melanoma is now more important than ever. In recent years, melanoma has increasingly been monitored in Medical Illustration departments, using a variety of methods – the most common of which is known as body-mapping. Whilst this has improved screening and monitoring capabilities, the technique is often laborious, with uploading and sorting images becoming even more time-consuming than taking the images themselves.

This workshop aims to highlight some of the key issues that are faced by Medical Illustration departments in regards to the mapping of skin lesions. It also aims to promote best practice in dermoscopy and mole-mapping, update members on NICE guidelines, and provide a practical demonstration of the FotoFinder Automated Total Body Mapping (ATBM) system and how it can specifically benefit Medical Illustration departments.

Schuco are a family-owned business established in 1957 that specialize in the latest skin technology and we continue to work with Medical Illustration departments across the UK.

Inspiration 2

1030-1245

Body painting and life drawing workshop

**Karen Kirkness and
Catherine Cant**

Life drawing and body painting are engaging methods of refining our understanding of anatomy in a fun and expressive way. Karen will provide a short introduction and get participants drawing straight away to maximise the experience of working with a live model. Next, participants will ramp up their 'seeing' practice with blind contour drawing techniques and short studies of the figure. Finally, Karen will lead a demonstration of body painting so everyone will have a chance to get to grips with the anatomical landmarks in a direct approach. These workshops are suited to everyone with an interest in human anatomy. Materials provided for body painting, please bring own materials for drawing if possible.

Topaz (model): From York, with a degree in linguistics, I work now on all sides of the easel; as model, artist, and art teacher, as well as being a life drawing facilitator, creative collaborator, and performance artist. As an artist I am interested in the beguiling ambiguity of a person's expression, which invites a feeling of empathy from the viewer and begins a dialogue of looking. As a model I am like a malleable vessel, ready to be filled with the particular creative desires of the artists I work with, which in turn inspires what shapes, energies, and presences I embody.

www.topazpauls.com



WORKSHOP PROGRAMME

Inspiration 2

1400-1500

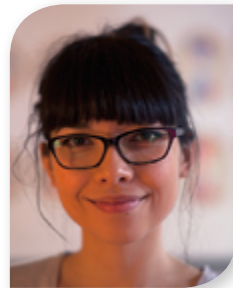
A guide to creating your online portfolio: promote your work and get noticed

Annie Campbell

Freelance Medical Illustrator

As medical artists we work in a specialised field where we bring our training and expertise to communicate tough medical concepts in dynamic and engaging visuals. Most of us have an online portfolio site that showcases our work and is our main promotional tool for getting new clients. Though it may seem that the term 'medical artist' is pretty straightforward, a lot of people still struggle with understanding what it is that we do and what we can do for them.

Clearly explaining our services to the wider audience of the internet is what can help us get potential clients. This session focuses on promoting yourself as a medical artist, how you could present your services and what information you should include in your portfolio to try and improve the number of enquiries from potential clients. We cover web design best practices and basic search engine optimization (SEO). As part of that we also cover what kind of information you should include alongside your work, as well as the kinds of layouts and gallery options that make it easy viewing for your audience. Handouts and worksheets are included for you to cater the session to your own business.



1530-1630

Writing surgery

Carly Dakin

Editor, Journal of Visual Communication in Medicine

Book your appointment with one of the team during our 'writing surgery'. Members of the editorial board will be on hand with an aim to answer your queries on all aspects of writing for the Journal.

The *Journal of Visual Communication in Medicine* is an international, peer-reviewed publication published by Taylor and Francis on behalf of the Institute of Medical Illustrators. Its aim is to promote the effective use of communications media and visual sciences to improve healthcare through education, clinical practice and research.

The surgery will provide an opportunity for delegates to book an appointment in advance of the session to speak on a one-to-one basis to a member of the editorial team. We understand that the prospect of writing for an academic journal can be daunting and so we can help bust the myths, advise on how to get from research idea to publication, and inform of the variety of papers that we publish, from which any potential author can choose the style that suits them.

To book some time to chat email: viscomm@imi.org.uk



1530-1630

CPD – continue to learn and develop your career, in order to work safely and effectively

Cat Lamoon

Royal Preston Hospital, Preston

All professional members of IMI are required, as a condition of their professional membership status, to keep a record of their CPD activities. Every year 2.5% of members are chosen at random to submit their portfolio for audit. If yours isn't up to date, make sure you get it done now.

Continuing professional development is something that everyone should be doing and can take many forms. As well as formal courses and workshops that you might attend, there are many ways in which you develop your knowledge and skills from day to day. Attending the IMI Conference or Summer School, reading books, IMI National Guidelines and journals, browsing websites or researching a technique are all things that you could record and reflect upon.

Maintaining an up to date CPD portfolio is a mandatory requirement of IMI membership. To help you record and monitor your CPD portfolio, all members have access to IMI's online CPD Record. The downloads available include the CPD standards, an example of a CPD profile, IMI's CPD statement, a useful list of typical CPD activities and an article on reflective writing.

Please don't think of this as a test! The process is intended to be a supportive one and detailed feedback will be given to help you to improve your CPD for future years. Come and have a chat with our CPD team for further information and advice.



Innovation Centre

1030-1130

Managing the future – the changing role of medical illustration

Waba

As many of you are aware there have been many changes to the NHS in the past decade, some have been positive and some not so! We have shared many of these changes with you, some we've planned for but many have come out of the blue and surprised both the client and supplier.

Ever attended a meeting where someone within the Trust doesn't know what you do or where your office is? Then comes the introduction of a swanky new system that may or may not affect how your department runs. You are told it's happening whether you like it or not, but you'll be last in the queue despite the fact it could introduce clinical risk!

The future is going to be even more challenging for both Medical Illustration departments and your suppliers. We'd like to invite you to the Innovation Centre to share your experiences, concerns and plans with a supplier, to work out how best we can tackle these challenges together during these exciting times to secure the future of your department.



WORKSHOP PROGRAMME

Innovation Centre



1145-1245

Documentary filmmaking with DSLR cameras

Keven Siegert

Freelance



Keven Siegert has enjoyed a career in Biocommunications for thirty years and is now an independent filmmaker, producing primarily documentary films. Keven is an experienced Director, Photographer, Editor and Storyteller.

This session will cover the process of producing documentary films on DSLR cameras from concept to market, with an emphasis on the technical details of shooting and post production.

Discussion topics include a comparison of cameras, overview of equipment, technical setup, shooting strategies, audio recording, lens considerations, color correction and post-production.

Marketing topics include social media strategy, Film Festivals and navigating the legal maze of marketing and distribution.

1400-1500

Waba User Group Meeting – update

Waba

Following on from the Waba User Group Meeting in June we'd like to invite all Waba clients attending this year's Conference to our User Group drop-in clinic.

It doesn't matter if you couldn't attend the meeting in June, just pop along and let's talk through what was discussed and any updates or indeed any ideas that you might have to help us help you. There is no rush, the clinic is open for an hour, so we will try and see as many clients as we can.

1530-1630

IMI Awards Judges' Feedback and Q&A

Catherine Draycott and Jerry Nayler

An opportunity to hear feedback and useful tips from members of the judging panel for those interested in entering their work for the IMI Awards. The judges will talk about the way the selection process works and there will be an opportunity to ask questions about the Awards.



SCIENTIFIC PROGRAMME

Saturday 17th September



New Voices Chair Bolette Jones	
Venue	Auditorium
0900-0910	The digitisation of historical surgical tools for inclusion in an online learning module for the RCPSGlasgow and the Open University Kirsty Earley University of Glasgow; Digital Design Studio, Glasgow School of Art
0910-0920	Workflow for the creation of an interactive anatomical learning application incorporating a 3D digital reconstruction of the cerebral ventricles using medical imaging data Amy Manson University of Glasgow; Digital Design Studio, Glasgow School of Art
0920-0930	The cell cycle: development of an eLearning animation Cristina Sala Ripoll Dundee University
0930-0940	Making sense – delivering a service without discrimination Lorna Mattocks and Khristopher Swann Cardiff and Vale University Health Board
0940-0950	High poly to low poly workflows for real time rendering Nicky Webster Guy's and St Thomas' NHS Foundation Trust
0950-1000	Creating interactive 3D platforms Caitlin Monney Journal of Hepatology, EASL
1000-1015	Break
Keynote Address and Plenary Session Chair Kathy McFall	
1015-1045	Keynote Scotland's Superhospital Emma Olver and Lesley McKeran BBC Scotland
1045-1105	Personal injury photography: principles and practice David Bryson Senior Lecturer, University of Derby
1105-1125	2D/3D Imaging for research - the PICTURE project David Bishop UCL Medical Photography / Health Creatives
Professional Session Chair Jerry Nayler	
1130-1230	Regulation update (panel)
1230-1330	IMI Annual General Meeting
1330-1415	Lunch

	Concurrent 1 Mobile & 3D Technology Chair Sharon Sutherland	Concurrent 2 Medical Visualisation Chair Paul Rea
Venue	Auditorium	Clyde
1415-1435	Mobile phone standards for Teledermatology Jane Tovey Queen Elizabeth Hospital Birmingham. UHB NHS Foundation Trust	Does virtual haptic dissection improve student learning? A multi-year comparative study Caroline Erolin University of Dundee
1435-1455	3D printing in medicine and healthcare Jerry Nayler Cambridge University Hospitals NHS Foundation Trust	How to effectively design a concept mobile application to aid in the management of type 1 diabetes in adolescents Victoria McCulloch Freelance Medical Illustrator
1455-1515	From traditional static-3D to next generation temporal-3D in the NHS Kelly Duncan 3dMD Limited	Texturing realistic CGI facial depictions. Current and future practice at Face Lab, Liverpool School of Art and Design Mark Roughley Face Lab, Liverpool School of Art and Design, Liverpool John Moores University
1515-1530	Break	
Keynote Address and Plenary Session Chair Andrew McAllister		
Venue	Auditorium	
1530-1600	Keynote Virtual Reality - a temporary distraction or real opportunity? Dr Paul Chapman Digital Design Studio, The Glasgow School of Art	
1600-1620	Illustration and design for medical education Annie Campbell University of Dundee School of Medicine	
1620-1640	Freelancing for the NHS Jack Silverman	
1640-1700	The ‘4 TRAUMA’ Project Jane Tovey Queen Elizabeth Hospital Birmingham, UHB NHS Foundation Trust	
1700-1715	My medical illustration journey and the NHS: then, now and our future? John Biagi NHS Lanarkshire	
1715-1730	To be confirmed	
1730-1845	Break	
Evening Social		
18.45-	IMI 2016 Annual Awards Banquet	



0900-0910

The digitisation of historical surgical tools for inclusion in an online learning module for the RCPSGlasgow and the Open University

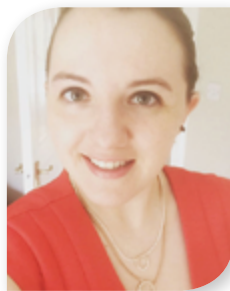
Kirsty Earley

University of Glasgow; Digital Design Studio, Glasgow School of Art

The preservation of historical artifacts is an important yet difficult task for museums worldwide. There is a constant battle between preventing damage to the artifacts and increasing access to viewers, and this balance is difficult to attain.

Curators are looking to new techniques to display collections, many turning to digitisation for online access. Presented here is a new method of digitising highly specular surgical artifacts held at The Royal College of Physicians and Surgeons of Glasgow. Close-range photogrammetry was applied to develop interactive digital models of a set of surgical tools. These models were then incorporated into an online learning module for students studying 'Medicine and Society in Europe: 1500-1930s' at the Open University.

It is hoped that results from this project can prove that close-range photogrammetry combined with virtual reality technology can be used by museum institutions worldwide as a cheap method of digitisation.



0910-0920

Workflow for the creation of an interactive anatomical learning application incorporating a 3D digital reconstruction of the cerebral ventricles using medical imaging data

Amy Manson

University of Glasgow; Digital Design Studio, Glasgow School of Art

The use of computer-aided learning in education can be advantageous, especially when interactive 3D models are used to aid learning of complex three-dimensional structures. The anatomy of the cerebral ventricular system is difficult to fully understand as it is seldom seen in 3D, as is the flow of cerebrospinal fluid (CSF). Using MR images of the ventricular system of the brain and several widely available commercial and free software packages, the techniques of 3D modelling, texturing, sculpting, image editing and animations were combined to create a workflow for the creation of an interactive education and training application. This was focussed on cerebral ventricular system anatomy and the flow of CSF. A robust methodology was produced, resulting in an interactive learning application detailing the anatomy of the cerebral ventricles and flow of CSF, using an anatomically accurate 3D model. The workflow presented shows how tutorials, animations and self-assessment tools can also be embedded into the training application. This study showed that an interactive educational and training package could be created for both specialist and non-specialist users, aiding understanding of an otherwise complex area of anatomy. This workflow methodology could be applied to other complex areas of anatomy to aid understanding.



0920-0930

The cell cycle: development of an eLearning animation

Cristina Sala Ripoll

University of Dundee

Medical students are faced with an extensive and time-consuming curriculum. Due to the limited time available to study a high amount of content, they often focus most on the clinical relevance of each topic, which they perceive as more useful as future doctors. Furthermore, the complexity of some topics can be substantial. This has a negative impact in the interest and motivation of students. A good example of these challenging topics is the cell cycle. It possesses the two features required for our project: it is complex, given the numerous components and interactions involved in it, and its clinical relevance might not seem immediately obvious to students.

This project focuses on the creation of an e-learning animation about the cell cycle intended for the use in the first-year Pathology module taught by Dr. Richard Oparka at the University of Dundee School of Medicine. Motion graphics software was used to simulate a 2D platform video game. This resource will allow students to review contents at their own pace and as many times as they need. Medical artists can make significant contributions to medical education by developing innovative educational resources that present complex topics in a visual and memorable way.



0930-0940

Making sense – delivering a service without discrimination

Lorna Mattocks, Khristopher Swann

Cardiff and Vale University Health Board

As clinical photographers, we recognise the importance of effective communication, but occasionally, barriers can present challenges in this communication which can affect the delivery of a quality service.

Sensory impairment such as hearing and sight loss affects millions of people in the UK and we have a legal duty, under the Equality Act 2010 to ensure equal access to health care for all. A proactive approach should be adopted ensuring that communication needs are met and that our working practice provides a non-discriminatory service.

Study was undertaken in the Media Resources Centre in University Hospital of Wales, Cardiff, evaluating the service from the perspective of a patient with a sensory impairment. What improvements can we make in our place of work to meet the needs of people with a sensory impairment? This presentation identifies the findings and makes simple recommendations, of where improvements can be made to meet needs of people with sensory impairment, providing an equal service for all.



NEW VOICES

Auditorium

0940-0950

High poly to low poly workflows for real time rendering

Nicky Webster

Guy's and St Thomas' NHS Foundation Trust

Creating 3D models for real-time rendering has many rules and responsibilities that must be adhered to in order for the computer to create images fast enough that the viewer can interact with in a virtual environment. My presentation will focus on the difference in approach for pre-rendered media with real-time 3D, and reveal some of the methods and workflows employed by professional game artists to create the illusion of visual detail while on a polygonal budget.



0950-1000

Creating interactive 3D platforms

Caitlin Monney

Journal of Hepatology, EASL

Professional requests for an alternative to dissection-lead ENT training prompted the creation of an easily accessible anatomically accurate model of the temporal bone. Traditional cadaveric models are limited by cost, time consumption, and accessibility, especially paediatric cadavers. We set out to create and assess an online 3D juvenile temporal bone model as a teaching and surgical planning aid in otolaryngology training. The creation of the ENT3D platform lead to the later commission of the BeBopBrain platform hosting 3D models of fetal brains at three stages of in utero development.

This presentation will discuss the products created, their added value to a specific medical teaching environment and medical training and planning, as well as offering user friendly, simple interfaces accessible to all levels of education (more prospective client-based).

It will also explore the techniques and softwares used to create the contents of the platforms, and discuss what future developments will be added to the platforms which were built with the intent of evolving through time and with the latest teaching tools available (more teaching-based).



KEYNOTE ADDRESS

Auditorium

1015-1045

Scotland's Superhospital

Emma Olver

Producer/Director, BBC Scotland

Lesley McKeran

Researcher, BBC Scotland

This presentation will give an insight into the production of BBC Scotland's Superhospital series. The first series was filmed over a two-year period following the staff and patients at four of Glasgow's oldest hospitals as they left their old iconic buildings behind, and moved into one brand new state-of-the-art superhospital. Filming for the second series, one year on, began in August this year. Emma will discuss her role as shooting PD, focussing on: research, team management, creativity, filming schedules, issues in a live NHS environment, gaining consent from staff and patients, and editing.



PLENARY SESSION

Auditorium

1045-1105

Personal injury photography: principles and practice

David Bryson

Senior Lecturer, University of Derby

It is over 30 years since I started undertaking personal injury work and 20 since I first wrote a paper about this area in the *Journal of Audiovisual Media in Medicine*, now *Journal of Visual Communication in Medicine*. Looking at the current situation: What is the same? What has changed? What is the future for Personal Injury Photography?

This paper will address the similarities and differences between clinical, forensic and personal injury photography including the principles behind the use of photography in litigation. It will also look at the state of casework in the UK and suggest possible ways forward to maximize the value to clinical photography departments in the view of the current legislation and marketplace for personal injury work.



PLENARY SESSION

Auditorium



1105-1125

Medical and forensic photography in the HM Forces

Tim Robinson

DSOP Training Design and Development, Ministry of Defence



The Defence School of Photography, as it is now, has a proud heritage in delivering military photographic training; the ability to respond to change and persist through adversity has arguably been one of the key factors in its longevity.

Formed in the summer of 1915, the School's motto 'Luce Scribimus' which means 'We Write With Light' is symbolised by the Quill across the Sun on the School Crest – approved by King George VI in 1939.

The Defence Training Review brought about the re-naming of the school and in 2003 the School was re-named the 'Defence School of Photography'. The renaming suggested a wider remit for the school than first envisaged and today students from all three Armed Services, the Civil Service and other Government Departments pass through the doors.

Since WW2, over 40,000 operational photographers, from all three services, have been trained in support of military operations such as Northern Ireland, The Falklands, The Balkans, Iraq, Afghanistan and the Royal Navy anti-piracy mission. From 2008 over 1500 people have been trained from other Government Departments. Since the formation of the School of Photography in 1915, over 16,000 professional photographers have been trained giving a total of over 57,500 personnel in its 101 year history.

This presentation will focus on just two aspects of the diverse roles a military photographer may find themselves supporting in operational and non-operational theatres.

PROFESSIONAL SESSION

Auditorium



1130-1230

Regulation update (panel)

IMI and CAMIP have been working with the Academy of Healthcare Science (AHCS) to develop a part of its accredited AHCS register for medical illustrators. A public consultation took place during the summer before the application was submitted to the Professional Standards Authority.

In this session the team will provide an update of progress so far and answer any questions from delegates.

Carol Fleming IMI Regulation Lead and IMI Director to CAMIP

Jeremy Nayler IMI Education Lead and IMI Director to CAMIP

Simon Brown CAMIP Registrar

Janet Monkman AHCS Chief Executive

David Bennett AHCS Director and Head of Quality Assurance

Kerry Tinkler AHCS Executive Director of Professional Standards

Alun Williams AHCS Project Manager

1230-1330

Annual AGM for all IMI members

The 2016 General Meeting of the Institute of Medical Illustrators will take place in the Auditorium on Saturday September 17th at 12.30pm.

Note this is a private meeting and only eligible members may attend. An eligible member is one whose subscription is paid up to date.

Voting is restricted to the following grades of membership: fellow, honorary fellow, professional members, students and retired members.

Please read the AGM papers before the meeting – these can be found in the Member's section of the IMI website.

CONCURRENT SESSIONS

Auditorium Concurrent 1: Mobile & 3D Technology



1415-1435

Mobile phone standards for Teledermatology

Jane Tovey

Queen Elizabeth Hospital Birmingham. UHB NHS Foundation Trust



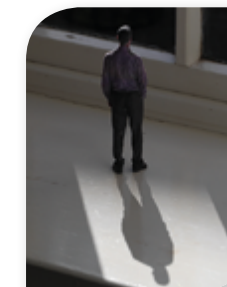
In 2011 the Primary Care Commission published Quality Standards for Dermatology: Providing the Right Care for People with Skin Conditions and subsequently, the Quality Standards for Teledermatology. This work was supported by the British Association of Dermatology, the British Dermatological Nursing Group and Primary Care Dermatology Society as well as IMI's very own Paul Crompton. Early in 2016 Simon Dove and Jane Tovey joined the working group to develop a supplement for these documents which outlines specific guidance for mobile phones in teledermatology. This presentation will outline the progress to date and how it links to the Secure Clinical Image Transfer App developed by UHB Trust. As the DIY and telemedicine market has expanded, opportunities have arisen for Medical Illustration departments to support these by becoming 'Image Guardians' for the Trust. This places Medical Illustration at the heart of all image-related risk incidents and working with senior management to control these unmanaged service developments, bringing a new level of respect to the department along the way.

1435-1455

3D printing in medicine and healthcare

Jerry Nayler

Cambridge University Hospitals NHS Foundation Trust



Additive manufacturing (AM), or 3D printing, has been around for several years but recent advances have been rapid and widespread. AM is not a single technology - there are many different methods for producing structures in a huge variety of materials. Low-cost 3D printing machines are now common in schools and AM is being used to manufacture products in such diverse industries as motor manufacture, aerospace, building construction and catering.

In medicine and healthcare AM has already made a dramatic impact, especially in surgical specialities where it is used for planning, preparation and the production of implantable structures. Its use in low-cost and bespoke limb prosthetics is well documented, but even more exciting applications of AM in bioprinting hold out the real prospect that human tissues and perhaps whole organs will one day be developed using a patient's own cells, thus eliminating many of the problems associated with allografts.

At CUH, our 3D Print Lab's first year has focused mainly on surgical planning, with a view to expanding the service as we grow our knowledge and to meet demands.

CONCURRENT SESSIONS

Auditorium

Concurrent 1: Mobile & 3D Technology

1455-1515

From traditional static-3D to next generation temporal-3D in the NHS

Kelly Duncan

3dMD Limited

Following on from my previous talks on high-precision 3D photography for clinical use, this scientific session will focus on the ongoing transition from traditional static-3D photography, which has been in use worldwide for more than a decade, to the next wave of advanced temporal-3D (4D) photography. With advanced temporal-3D technology, 3D photography protocols no longer have to be dependent on capturing that one vital 3D photograph in a single point-and-click set-up. The photographer can easily select the best possible 3D photograph from a progressive 3D sequence, thus minimizing the uncertainty associated with restless children or unsteady patients. More importantly, medical photographers can also document the most appropriate facial expressions, body postures, and positions for comparison purposes in outcomes assessment and analyse dense-3D dynamic surface motion to quantify anatomical function. Temporal 3dMD systems are now in daily use at prestigious teaching hospitals and research institutions around the world. This talk will also discuss how temporal-3D is being applied by medical photography departments in hospitals throughout the UK including Chelsea & Westminster Hospital and Belfast City Hospital.



CONCURRENT SESSIONS

Clyde Concurrent 2: Medical Visualisation

1415-1435

Does virtual haptic dissection improve student learning? A multi-year comparative study

Caroline Erolin, Clare Lamb, Roger Soames and Caroline Wilkinson
University of Dundee

This study investigated the haptic 'dissection' of a digital model of the hand and wrist in anatomy education at both undergraduate (UG) and postgraduate (PG) levels. The study ran over five successive years and was split into three discreet phases. Phase one compared the results of PG students across control, non-haptic and haptic groups. Phase two compared the results of UG students between control and haptic groups. Phase three compared the results of UG students across control, non-haptic and haptic groups. Results for all phases indicate that use of the model, both through haptic and non-haptic interfaces produced some significantly improved test results. The non-haptic group performing the strongest overall indicating that the addition of haptic feedback may not be beneficial to student learning.



CONCURRENT SESSIONS

Clyde Concurrent 2: Medical Visualisation

1435-1455

How to effectively design a concept mobile application to aid in the management of type 1 diabetes in adolescents

Victoria McCulloch, Sarah Hope, Brian Loranger, Paul Rea
Freelance Medical Illustrator; University of Glasgow

With diabetes being one of the eight most prevalent chronic health conditions in the World, there is a wide range of diabetes-related mobile applications available to the public to aid in glycaemic control and self-management. Statistically adherence to medication is extremely low in adolescents with Type 1 diabetes mellitus, therefore it is crucial that adolescents adhere to their medication from a young age and adopt good medication regimens. This presentation focuses on the research and design of an interactive and educational concept mobile application aimed at adolescents, aged 11 to 16 years old, to aid in their understanding of Type 1 diabetes mellitus. As the visual elements are an essential part to the design of a mobile application, this research will outline how the visual components of the application were designed specifically for the target audience of adolescents with Type 1 diabetes mellitus.



1455-1515

Texturing realistic CGI facial depictions. Current and future practice at Face Lab, Liverpool School of Art and Design

Mark Roughley

Face Lab, Liverpool School of Art and Design, Liverpool John Moores University

Face Lab is a Liverpool School of Art and Design, Liverpool John Moores University, research group that carries out forensic and archaeological research and consultancy work, including craniofacial analysis, facial depiction and forensic art. Face Lab utilises a variety of 3D software to create its facial depictions and this presentation will demonstrate the process of texturing CGI facial depictions and how Face Lab is adapting to changing technologies to create realistic images of faces from history. The presentation will cover the use of 3D software such as ZBrush, Photoshop and Maya, and 3D/4D texture capture scanners and systems. We would like for the audience to be aware of the collaborative process that takes place when creating a finished facial depiction, and the importance of utilising high resolution captured images, photographs and data when texturing 2D images and 3D models.

Example of Face Lab's recent projects:
St. Nicholas (Santa Claus)
www.bbc.co.uk/news/uk-england-merseyside-30354994



KEYNOTE ADDRESS

Auditorium



1530-1600

Virtual Reality - a temporary distraction or real opportunity?

Dr Paul Chapman

Digital Design Studio,
The Glasgow School of Art

Virtual Reality (VR) has been around for decades but recent technological advances have caused a huge surge in popularity over the last 24 months. In this talk I will give a brief history of VR, tracking its development from early helmet mounted displays to the latest immersive systems available today. We will consider real-world applications for VR and, using the medical context, examine how we can generate exciting content for immersive medical learning experiences. Finally, we will contemplate the future of VR and postulate where the technology might be in ten years' time.

Dr Paul Chapman is the Acting Director of the Digital Design Studio at The Glasgow School of Art. Paul holds BSc, MSc and PhD degrees in Computer Science, he is a Chartered Engineer, Chartered IT Professional, Fellow of the British Computer Society and member of the RSE Young Academy.



PLENARY SESSION

Auditorium

1600-1620

Illustration and design for medical education

Annie Campbell

University of Dundee School
of Medicine

The Medical School of the University of Dundee are constantly exploring new methods on how they can improve their teaching sessions for their medical students. With advances in technology, their students tend to gravitate towards animation, video or interactive resources that are filled with 3D models and visualisations, to help develop their understanding of human anatomy.

As a medical artist collaborating with the University's teaching staff we have produced interactive content with mock patient case scenarios, dynamic presentations filled with medical illustrations and animations, as well as successfully shared our work for other individuals to reuse for educational purposes.

In my presentation I would like to present these examples of our collaborative work. I will also show how I look to other groups for visual resources and build on their work to create new learning assets. I hope that by showcasing my examples I can demonstrate to the audience how our methods of working together can be applied to other areas of healthcare and design.



1620-1640

2D/3D Imaging for research - the PICTURE project

David Bishop

UCL Medical Photography /
Health Creatives

PICTURE is a multi consortium, European-funded research project and over the last two years our department has been heavily involved in the photography of breast cancer patients with 2D and 3D equipment with a view to the data being used with other imaging modalities to help develop / produce a reliable software demonstrator that '... is designed to predict how an individual patient's breast will look after breast-conserving surgery ...' (PICTURE 2016). This presentation will provide an overview of the development of various photography protocols, the patient journey, working with multiple research teams together with the problems encountered during patient photography, concluding with the results obtained so far with the software demonstrator shown at the PICTURE symposium in January 2016.



1640-1700

Freelancing for the NHS

Jack Silverman

NHS Lothian

The aims of this talk are to share with you the experiences I had working as a freelancer for the NHS and to provoke a discussion about freelancers and their role in Medical Illustration departments.

There are numerous positive and negative aspects to freelancing and these can be applied to both the freelancer and to the department. I intend to cover a few that I personally experienced as well as others that could be applied to freelancing in general.

As an outsider looking in, I was offered a unique view into a world that goes largely unnoticed by the general public. I noted how through embracing a more creative approach, a Medical Illustration department was able to produce work that one might associate more with a creative agency or production company. I would therefore like to discuss how Medical Illustration departments could benefit a great deal by adopting a culture of openness by working and collaborating with external photographers, videographers, graphic designers, artists and academics.

Prevailing political and socio-economic factors that affect not just the NHS but those who contract their services out to it. It is my intention to briefly examine some of these factors and raise the issue of the future of freelancing for the NHS.



CONCURRENT SESSION

Auditorium

1700-1715

The '4 TRAUMA' Project

Jane Tovey

Queen Elizabeth Hospital
Birmingham, UHB NHS
Foundation Trust



The Role 4 Trauma Guidelines project is designed to gather the lessons learned from treating the military trauma casualties at the Queen Elizabeth Hospital Birmingham, the base for the Royal Centre of Defence Medicine. It was intended to be media rich and interactive. This presentation documents the project to date and outlines the trials and tribulations of managing a continuously changing IT-based project, product promotion and the financial challenges along the way.

The 4Trauma Project includes: The Combat Trauma App, Day One & Beyond (Lessons learned from responding to Major Incidences), 4Trauma website, Trauma Toolkit as well as the 4Trauma4Patients project.

1715-1730

My medical illustration journey and the NHS: then, now and our future?

John Biagi

NHS Lanarkshire



My personal journey is an insight into how a career pathway in medical illustration does not have to begin and end in medical illustration. I would like the audience to learn that given the proper support and encouragement, anything is possible. A career in Medical Illustration allows the candidate to forge strong working relationships with a variety of professionals; this brings opportunities and how you utilize those opportunities is down to the individual. My current role as service development manager for ophthalmology allows me to explore further-reaching avenues for a medical illustration workstream, bridging the gap between primary and secondary care, with pilot programmes such as a community diagnostic hub. This project will be the epicentre of this talk. I will discuss the grass roots of the project, how it is being developed, the possibilities it provides for the patients of NHS Lanarkshire, insight into how it can help ease the pressure on our secondary care services, and what the implications of it could mean for Medical Illustration Services in NHS Lanarkshire.



SOCIAL PROGRAMME



Thursday 15 September

Free evening

For those arriving early, take the opportunity of a relaxing catch-up with friends old and new in the Lounge Bar, or visit the hotel's Health Club for a workout, swim or sauna.

Friday 16 September

IMI Bronze and Silver Awards Cocktail Hour

Time to relax and celebrate with the IMI 2016 Bronze and Silver Award winners.

Murder Mystery Dinner

Friday evening brings a full day of learning to a close with a special murder mystery dinner performance.

A play. A murder. An opportunity to play detective.

Step aboard the S.S. Intrigue, where people from all walks of life are gathered for the Captain's cocktail party. From the aristocracy and landed gentry, to a famous footballer that has fallen for a lovely young woman he met at a charity function. Does he know who she really is? Or is there something amiss about the owner of the shipping lines wife? Perhaps the couple that won the lottery have something to hide. Could there be more to the captain and his entertainment officer than meets the eye, or could our struggling singer be more than he appears?

Whoever (done it), we are very lucky to have a famous detective on board who will help you all to solve the mystery.

Saturday 17 September

IMI 2016 Annual Awards Banquet

Saturday evening will see the Annual Conference Photograph and Awards Banquet take place.

Following on from this it's time to kick back, relax and dance the night away with our Conference DJ playing all your requested hits. From grammar phone to iphone, big band to boy band and Sinatra to Sinita. And why not jig over to our photobooth, where you can create some captured memories with all your old and new friends.



IMI Conference 2016

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CONFERENCE FLOOR PLAN

