

**Saturday 7<sup>th</sup> October**  
**Scientific Programme Abstracts**

## **Keynote address**

**Using modern microscopy to Image movement of viruses within and between cells**  
*Professor Geoffrey Smith*

## **New Voices**

### **Endoscopic Pituitary Surgery**

*Imi Ridley*

I am creating an animation as part of a collaborating with some of the ENT surgeons at Ninewells Hospital – NHS Tayside on the removal of a cancerous pituitary gland for my masters degree final project. I am intending for the animation to be between 5-8 minutes long and explain the endoscopic methods that are used in the surgery to remove the gland. The gland is removed from the nose so the animation will feature the difficulties that surgeons face when blindly having to guide and endoscope through the inner anatomy of the head. One of the leading surgeons I am working with, Peter Ross, is developing a nasal guard specifically for nasal surgery which can be place around the patients nose to protect it from the extensive amount of rubbing and damage that the tissue receives during surgery. This animation will be an opportunity to show the benefit this device could have to the surgical world but also educate others students and surgeons on how the procedure takes place.

### **Bang for no Bucks**

*Tomas Tyner*

Our University had a lack of good quality, current imagery to meet information and promotion requirements. Images were being reused and were dated. To provide new imagery would be very expensive and the need could not be met by one photographer. I held discussions with a Stock Photographic company to discuss a plan to replenish the University's image bank. The agreed plan was that the company would photograph in the University under my direction with agreement from University areas. Two types of imagery & some video content was produced. Generic imagery, where the University was not identified and more tailored University imagery, where branding, identifiable people and/or locations were used. UCC had full use of all the imagery. UCC had exclusive use of the tailored UCC imagery. The cost to UCC in money terms was zero but the benefit was enormous. The University did indeed get bang for no buck.

## **The best choice of equipment for intra-oral photography: current practice vs the gold standard**

***Laura Marcato***

Since digital technology made dental photography widely available to most dental practitioners in their every-day-practice, a great number of publications attempted to set the gold standard for obtaining high quality photographs.

Requirements for intra-oral photography include image sharpness, correct exposure, adequate depth of field, accurate colour rendition, together with lack of distortion and visual obstructions.

Consistency of results can be obtained by a basic knowledge of photographic principles, familiarity with specialist dental techniques, and a correct choice and use of equipment.

During April 2017, as part of a BSc final project in Clinical Photography, a survey was carried out among clinical photographers affiliated with the Institute of Medical Illustrators. The aim was to investigate the current practice in orthodontic photography in the U.K. and to compare it to the golden standard illustrated by the relevant literature.

The presentation will outline the results of the survey, focusing on equipment used for intra-oral photography; in particular the choice of lens, flash and light modifiers, lip and cheek retractors, intra-oral mirrors, and methods to remove excess saliva.

The ultimate question is, do we need to standardize the choice of equipment and revise the guidelines for orthodontic photography?

## **The OrthOracle Project: Is the Customer Always Right?**

***Laura Jackman***

OrthOracle is a multi-disciplinary online educational resource, illustrating an all-encompassing range of orthopaedic surgical techniques and procedures using high-definition photography. Our department at University Hospitals Birmingham NHS Foundation Trust was offered the contract of providing the photographic services for this project. At the beginning of 2017 our work swung into action after a period of discussion, negotiation and planning. Today's talk will address in particular the issues of contrasting stylistic approaches to photography, and the challenge of balancing our standards of clinical photography with the artistic desires of the client. I hope to share with you the experiences we've had of making compromises in order to ensure customer satisfaction and how we came to eventually settle on a particular style.

## **Conversation Café**

More details to follow.

## **Data Protection**

***Mark Thomas - Nottingham Trent University Law School.***

***Lisa Fisher - Medical Illustration Manager, James Cook University Hospital, Middlesbrough.***

***Catherine Russell - Medical Image Management System Administrator.***

***James Cook - University Hospital, Middlesbrough.***

***Ivy Clarkson - Patient with an interest.***

More details to follow.

## **From BCH to RCH**

### ***Stephanie Scrivens***

During the IMI conference in Leicester in 2013 I was very fortunate to experience some incredible award winning work from The Royal Melbourne Children's Hospital. Their high standard of work and passion for clinical photography, video production and graphic design led me to the decision of taking a three month career break in September 2016, in order to go to Australia and work as part of their busy team.

During this presentation I will cover my journey and experiences during the two months of working at The Royal Melbourne Children's Hospital, highlighting my aims, objectives and the realities. I will discuss the differences and similarities between being a clinical photographer in the UK & Australia, and how I have gained invaluable experience and built an international bond between our two hospitals for future working.

Robert Reitmaier my 3d imaging mentor will then present about 3d imaging at The Royal Melbourne Children's Hospital, going into more depth about the some of the projects which I was fortunate to be involved with.

## **Medical Photography in Norway : A profession on sick bed?**

### ***Bard Kjersem***

New technical innovations create new social and cultural potentials. The so- called digital revolution has changed photography. In Norway the profession of medical photography is non-existing. The photographers perform their tasks behind titles like research assistants, engineers and skilled workers. There is no formal education in medical photography. The invention of the digital automatic cameras has made it possible for nearly anyone to produce a correct exposed image at a relatively low cost. Currently the hospitals are managed according to the corporate principles and the hospitals' managers act like entrepreneurs. To fulfil the requirements of utilising the resources efficiently, the medical photographers' tasks are shifted to other health personnel.

A mixed method study investigates the reasons for the disintegration of the professional medical photography in Norway. A survey performed at the five Norwegian University Hospitals in 2015 registered the performers and users of medical photography. The survey was followed by interviews of three professional and three lay photographers aiming to record their work experiences. The Interpretative Phenomenological Analysis approach was used to analyse the interviews.

Hopefully the results of the study can serve as a means of recovery of the profession or, in the worst case, become the profession's death certificate.

### **Tele dermatology - skin lesion 'triage' service provision**

#### ***David Bishop***

Dermatology is big business these days, with patient numbers increasing at an alarming rate. NHS UK reports more than 100,000 new cases of non-melanoma and 13,500 new cases of melanoma skin cancer are diagnosed each year (NHS 2017).

This rate of increase has been the driving force behind the provision of a new service for the Royal Free London NHS Trust. After lengthy discussion and many planning meetings a new photography post was created to meet this demand.

Patients with single lesions would be referred by their GP directly to a photography clinic and photographed at six sites across North London, with the images being made available for a consultant led assessment in a virtual clinic.

David will review the process of setting up this new service; a journey that started with a trial in Camden where GPs took their own photographs and another trial in Lee Valley (to the present day) at two clinics managed by a medical photographer.

The service has now been running since December 2016 and is being reviewed on a regular basis in an effort to streamline the service and to prevent the photographer from being overused.

### **Filming & Photography for the Addenbrooke's abroad volunteer project in**

#### **Yangon Myanmar**

#### ***Mel Yenerski***

In May 2016 I went to film and photograph for the Addenbrooke's Abroad volunteer 'trauma intervention' project in Myanmar (Burma).

Myanmar's history has been turbulent, during nearly 60 years of isolationist military rule it was impossible for healthcare professionals to keep abreast of international medical developments. However, recent rapid political reforms in the country have opened up opportunities to develop medical education and opportunities for medical professionals to reconnect with their counterparts worldwide. This coupled with a government commitment to increase health and education spending to 5% of the GDP offers an unprecedented opportunity for strengthening healthcare delivery and practices in Myanmar.

The purpose of my visit was to film and photograph the current projects already in place, by filming interviews of both volunteers and Myanmar staff to show the importance for funding and the continuing need for volunteering.

I worked alongside a long volunteer trauma nurse from Addenbrooke's who introduced me to the staff and various departments at Yangon General Hospital and the University of Medicine that the volunteer projects were closely involved with. My visit was timed to overlap with visiting Cambridge volunteers that included clinical skills and pathology blood scientists.

My schedule was very tight and working in temperatures of 48 degrees humidity made my timetable very challenging but also at the same time was a very rewarding experience, especially to witness the positive effects of how the kindness of volunteering can improve global health care.

### **Roman Vishniac: The Curious Microscopist**

#### ***Norm Barker***

"Roman Vishniac Rediscovered" is a new book published by Prestal, in cooperation with The International Center of Photography, New York, in the fall of 2015, which the presenter wrote the chapter on Vishniac's scientific work. Vishniac was a long time member of the Biological Photographic Association, very active in the 50s, & 60s and won many Best of Show awards in the BPA salons of the day. In his more than 60 year career Vishniac is best known for his documentation of eastern European Jewish life before the Holocaust.

In the early 1960s Vishniac received a grant from the National Science Foundation to produce a series of films called the "Living Biology Series", which were shown in college biology classes throughout the United States. Roman Vishniac's early contributions to the field of scientific photography date to the 1940s, and he is widely recognized today as a pioneer in the field of photomicroscopy and 16mm films with the microscope. His long, interesting and sometimes controversial adventures will be discussed.

## **Analysis and viability of a Modified GoPro HERO 5 for Surgical Videography**

***Tim Zoltie***

The action camera market has redefined the video industry, enabling cost effective high resolution imaging in a small, portable format. The GoPro brand is a frontrunner in this emerging market, but how can we utilize these in medical videography? Are GoPros suitable and what is required to make them fit for purpose?

This talk will discuss the use of a modified GoPro Hero 5 for surgical videography at Leeds Teaching Hospitals NHS Trust, reviewing the quality of footage attained, ideal camera settings, best method of fixation and positioning, and whether this set up provides a cost-effective high quality method of professional surgical videography which can be utilized by both medical illustration practitioners and surgeons.

## **Colour Managing the Clinical Workflow**

***Simon Brown***

For a clinical work flow to be truly controlled, the colour response of every camera needs to be measured and profiled so that the output of each camera can be matched as closely as possible.

The colour sensitivity of different digital cameras, even camera models from the same manufacturer, can vary significantly and colour management processes need to be built into the work flow in order to produce predictable and consistent results.

This presentation will examine the various factors involved and will propose a three-stage process in order to ensure a robust and workable solution. It is neither expensive nor difficult, but it needs some basic hardware and some careful integration with a department's normal clinical work flow in order to be effective.

## **Implementation of a management information system for the graphics service**

***Kathy McFall***

In July 2016, Medical Illustration Services (NHS Greater Glasgow & Clyde) introduced a new FileMaker Pro management information system for the graphics service. This presentation will give an overview of the requirements, development and implementation of the system. The benefits and efficiencies to the graphics service will be discussed, as will plans for future development and potential roll out to other areas of the service and beyond.

## **Wands at the ready...**

***Jackie Love***

Persuading NHS clients of the strategic value graphic design contributes to their organisation's business aims and marketing objectives, although often difficult, is central to the process of implementing new brands and visual identity programmes.

Unless we as designers are willing to actively immerse ourselves in the world of business and leadership – and convince our clients that we have the ability to speak and understand their language – we may find ourselves perceived as merely painters and decorators. By understanding a client's desired outcome at the business development stage, we can and should offer a creative response that is not only in tune with their core idea, but also strategically viable.

I have long been fascinated by the role graphic design has in influencing brand perception and human behaviour. In my role as Head of Design at Oxford University Hospitals NHS Foundation Trust, I have experienced first-hand how the strategic aspect of branding offers as much opportunity to be creative as the visual side. Indeed the two are not mutually exclusive and when effectively combined, can produce remarkable results.

Those of us providing creative services to the public sector know that it takes far more than a magic wand to conjure something out of nothing. But the pleasure and satisfaction we experience at the end of a successful journey to delight our client is second to none.

I would like to share a few success stories and offer tips which might just help protect your sanity the next time one of your clients asks you to, 'work your magic...'