

BIR

The British Institute of Radiology



News

Autumn 2009

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Sonography - Radiology - Oncology - Radiography - Dosimetry - Physics - Health Informatics - Industry - Surgery - Radiation & Cancer Biology - Management - Molecular Imaging - Engineering - Radiation Protection - Radiochemistry - Radiobiology - Magnetic Resonance - Nursing



This issue:

• **SINAPSE**

• **Pugwash**

• **EU Physical Agents Directive**

News on the BIR

Sir Godfrey Hounsfield Memorial Lecture

FREE EVENT

Tuesday, 22 September 2009

“Pioneering work of MRI in the early 1980s” by Prof Francis Smith

During this evening, Prof Smith will explain how the early work in the 1980s prophesied the development of MRI to present day standards. Don't miss this free lecture which is an account of a major recent advance in radiology and its allied sciences!

Practical details

Venue: The British Institute of Radiology, 36 Portland Place, London W1B 1AT

Programme: Drinks & nibbles at 17.30 followed by Prof Smith's lecture at 18.15 and presentation of the awards at 19.15.

Book your seat: in order to secure your place, please book either by phone on 020 7307 1411 or via our website: www.bir.org.uk/sir_godfrey_hounsfield_lecture_.html

Want to apply for the Sir Godfrey Hounsfield Memorial Lecture 2010?

Conditions: The subject of the lecture should be an account of a major recent advance in radiology and its allied sciences. This lecture carries a stipend of £1000. Applications are invited from BIR Members of any age and discipline and should be sent to the BIR General Secretary (jacqueline.fowler@bir.org.uk).

Deadline for applications: 30 November 2009.



MacKenzie Davidson Lecture

FREE EVENT

Thursday, 10 December 2009

“The future of imaging: developing the tools for monitoring response to therapy” by Eric Aboagye.

This captivating lecture was founded in 1920 in memory of Sir James MacKenzie Davidson, a pioneer in British radiology. Since 1940, it has been delivered by a medical lecturer; this year, Dr Eric Aboagye.

Practical details

Venue: The British Institute of Radiology, 36 Portland Place, London W1B 1AT

Programme: Drinks & nibbles at 17.30 followed by Dr Aboagye's lecture at 18.15 and presentation of the awards at 19.15.

Book your seat: in order to secure your place, please book either by phone on 020 7307 1411 or via our website: www.bir.org.uk/mackenzie_davidson_lecture.html

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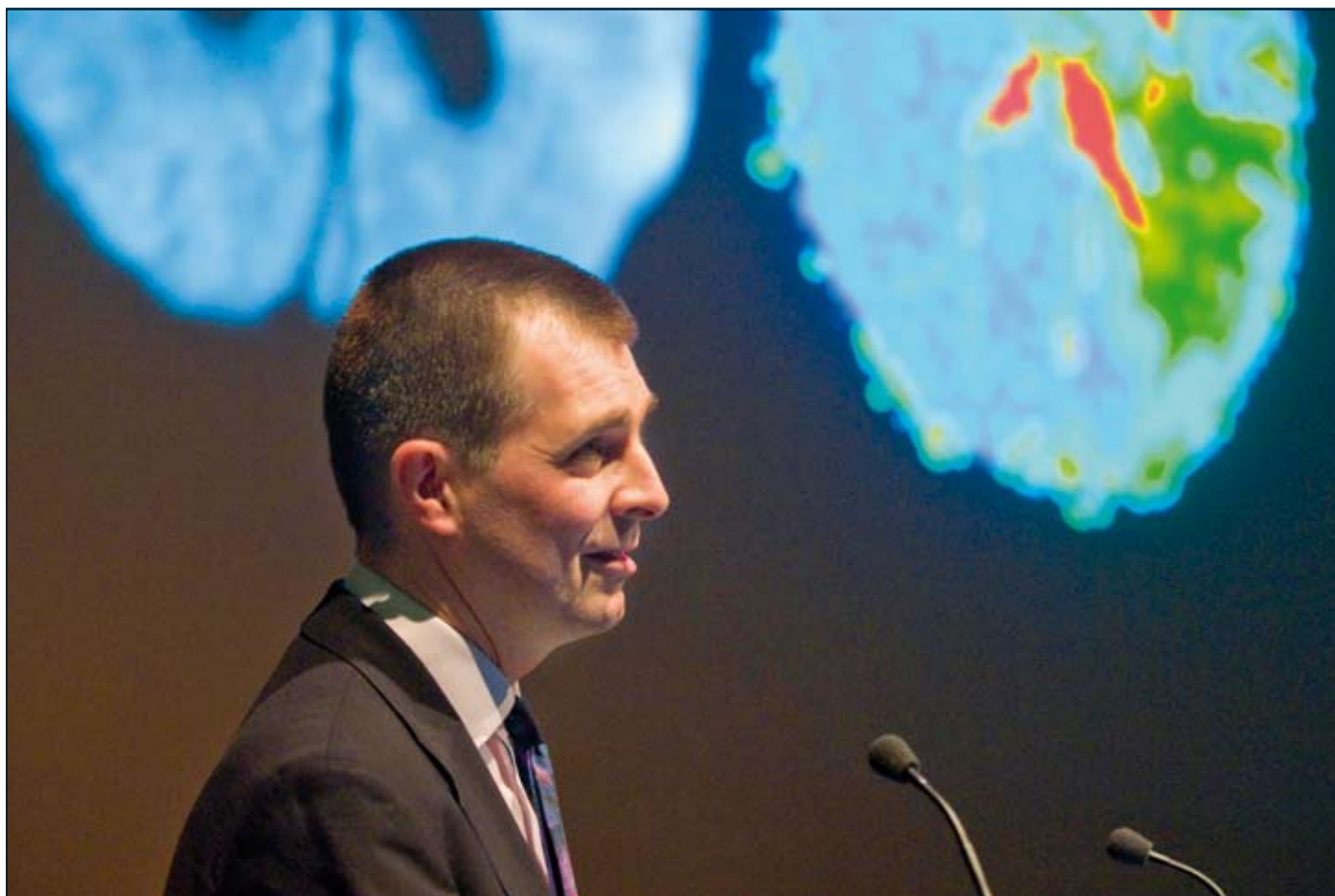
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Gift Aid Please treat all gifts of money that I make today, have made in the past, and will make in the future to The British Institute of Radiology, as Gift Aid donations

Please send your form back to: The British Institute of Radiology, Membership Officer, 36 Portland Place, London W1B 1AT, UK.

This issue...



Page 10 and 11: SINAPSE, the Scottish Imaging Network. Above: Professor Keith Muir, SINAPSE Chair.



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Upcoming Events

PET / CT Course

Thursday 1 October 2009

Venue: The Teacher Building, Glasgow

CALL FOR PAPERS! Presentations are invited on interesting research, audits, education posters and pictorial reviews on the topic of PET / CT (clinical, training related, service development or technical)



Obesity – The Challenges and Solutions in Imaging

Monday 19 October 2009

Venue: The British Institute of Radiology, London

The impact of a challenging disease on imaging can be significant. Most of the radiologists working today have been trained by a generation of doctors who came into imaging in response to the significant threat posed by tuberculosis and associated lung disorders. Our generation is now being challenged by a 'disease' that will have a similar profound impact on patients and their management. The problem of obesity is that it changes the body habitus so far from the accepted mean that conventional imaging strategies and technologies are severely compromised. It also has collateral affects that need to be understood so that appropriate management can be instituted.

This meeting has assembled a multidisciplinary team to explore the many facets and challenges facing the effective imaging and management of obese patients. This is the new and emerging battlefield in western medicine. All imaging professionals need to be armed for what is to come.

Imaging in Transplantation

Thursday 5 November 2009

Venue: The British Institute of Radiology, London

Transplantation is a rapidly changing field with the recent introduction of novel organ transplants and steady improvement in surgical techniques, immunosuppressive regimens and management of complications. The aim of this meeting is to outline some key medical and surgical concepts in transplantation and to illustrate the role of radiologists in the diagnosis and treatment of complications.

Lower GI Cancer - The Multimodality Treatment Paradigm

Thursday 6 November 2009

Venue: The British Institute of Radiology, London

This meeting will examine the treatment of lower gastrointestinal cancer with an emphasis on new and exciting innovations in cancer care. From the introduction of imaging advances in the GI tract, through the latest surgical techniques and molecular targets for colon cancer and GIST to the emerging role of brachytherapy in rectal cancer and life after the ACT2 trial, the latest techniques will be reviewed and examined and their roles critically appraised. The latest national and international trials of rectal brachytherapy will be introduced and summarised. We will be joined by international speakers to give a wide-ranging perspective on treatment advances.



Find out more information on our website:

http://www.bir.org.uk/Forthcoming_Meetings.html

BJR - UK's No1 Radiology Journal!

The BJR is now the top-ranked UK radiology journal after an increase for the second year in a row. The Journal has an Impact Factor of 2.366*, higher than any other radiological journal published in the UK.



A journal of high quality

This increase in Impact Factor reflects the quality, visibility and importance of *The British Journal of Radiology* to the UK and international radiological community. Libraries and researchers use the Impact

Factor as an indication of the standing of a publication and the BJR is now the UK journal of choice in this field.

All BJR manuscripts are rigorously and anonymously peer-reviewed by experts in their field, so the reader can be confident that the information published is trustworthy and authoritative. The editors of BJR have seen a significant rise in the number of researchers from across the world selecting the Journal as their first choice for publication.

"The rise in Impact Factor reflects the dynamic nature of the Journal which is changing to meet the requirements of the 21st century and will continue to develop in this way", commented Honorary Editor, Dr David Pilling.

How to access the BJR?

Readers can obtain printed or online copies of *The British Journal of Radiology* through membership of The British Institute of Radiology. Institutions can subscribe directly or via their subscription agents. Print subscriptions include FREE access to the full BJR electronic archive, which dates back to 1928.

Want to subscribe to it? Then go to:

www.bir.org.uk/subscriptions.html

The oldest radiology journal

BJR is also the world's oldest radiology journal; therefore, the BJR's history is radiology's history. Find out more about this fascinating electronic archive by visiting <http://retro.bir.org.uk>

*ISI 2008 JCR

BJR - September titles to look out for

Have you already checked out the articles for this month's issue? If not, here are a few of the available titles on-line.

Investigating the exposure class of a computed radiography system for optimisation of physical image quality for chest radiography

C S Moore, J R Saunderson and A W Beavis

Edaravone prevents bowel infarction after acute superior mesenteric artery thromboembolism using autologous fibrin clots in a rabbit model

A Sonoda, N Nitta, A Seko, S Ohta, S Takemura, Y Miyagawa, M Takahashi and K Murata

Does sialography require antibiotic prophylaxis?

P P Nixon, P Littler, K Davies and M S Krishnam

Reproducibility of temporal volume change in CT of lung cancer: comparison of computer software and manual assessment

O Honda, M Kawai, T Gyobu, Y Kawata, T Johkoh, J Sekiguchi, N Tomiyama, S Yoshida, H Sumikawa, A Inoue, M Yanagawa, T Daimon and H Nakamura

Effective dose conversion factors in paediatric interventional cardiology

A Karambatsakidou, B Sahlgren, B Hannsson, M Lidegran and A Fransson

Gastric wall thickening in association with hypereosinophilic syndrome

V Shah and S Mandumula

Aberrant right vertebral artery: a rare aortic arch anomaly

M Canyigit, A Akgöz, A Koksall and C Yucesoy

For the full content of these and other articles in this issue, please visit:

<http://bjr.birjournals.org/content/vol82/issue981>

Pugwash

Pugwash

Three former BIR presidents have been involved with the Pugwash Conferences on Science and World Affairs, which won the 1995 Nobel Peace Prize for promoting the involvement of scientists in nuclear disarmament and arms control. Today the organisation tackles root causes of conflict in nuclear hot-spots. In the UK, it promotes independent scientific advising and opposes Trident replacement. By **Sandra Ionno Butcher**, Director, Pugwash History Project.



From left to right: Prof. C.R. Hill, Sir Joseph Rotblat, Prof. Jack Boag.

Citizen Scientists

New scholarship will soon emerge about the role of BIR President and Honorary Member, Sir Joseph Rotblat, FRS and the formation of the Pugwash Conferences on Science and World Affairs. Rotblat's archives, some three tonnes of papers, are being catalogued. The first batch of these papers is now available at the Churchill Archives in Cambridge. These papers will include material from his involvement in BIR, and trace the career of this remarkable man, a true "citizen scientist" to use the phrase of Princeton physicist Frank von Hippel. These archives will touch upon two other former BIR presidents also deeply involved in the British arm of Pugwash: Prof. Jack Boag and Prof. C.R. ("Kit") Hill.

Do scientists have a social responsibility?

Rotblat felt strongly that science should be used to create improved social conditions, a belief that grew from his

early deprivations as a child living in Poland during WWI. Whilst he initially worked on the US-led atom bomb project, he famously became the only Manhattan Project scientist to resign on moral grounds when he learned Hitler had given up his bomb project. Rotblat devoted the rest of his career to exploring possible uses of nuclear physics in the medical field. He chose to make social responsibility the theme of his 1972 presidential address for the BIR, which he titled, "The doctor, the scientist and the community."

Using Science to Break Political Deadlocks

Rotblat's collaboration with Bertrand Russell led to the 1955 "Russell-Einstein Manifesto" and the subsequent historic 1957 meeting of 22 scientists from East and West who gathered in Pugwash, Nova Scotia to discuss the nuclear dangers and the social responsibilities of scientists. The language and culture of science made that first meeting a success. The committee

that dealt with the radiation hazards of nuclear tests was at first deadlocked. The transcript shows the breakthrough happened when they took the "linear" hypothesis, promoted by A.M. Kuzin and others, as compared with the "threshold" theory being promoted by the US and UK governments. This ability to agree scientifically created the trust that allowed for other more controversial political topics to be addressed and became the hallmark of the resulting NGO, which shared the 1995 Nobel Peace Prize with Rotblat, its guiding spirit.

Pugwash Today

According to its mission statement, "Pugwash above all is an expression of the social and moral duty of scientists to promote the beneficial applications of their work and prevent their misuse, to anticipate and evaluate the possible unintended consequences of scientific and technological developments, and to promote debate and reflection on the ethical obligations of scientists in taking responsibility for their work".

Currently, the organisation focuses on providing so-called "Track-II" dialogue in areas where nuclear risks are present: in the Middle East, South Asia and the Korean peninsula in addition to its more traditional focus on nuclear disarmament and arms control. British Pugwash promotes independent scientific advising on issues related to nuclear weapons, opposes Trident replacement and promotes non-military solutions to key non-proliferation challenges.

For more information
www.pugwash.org

Current position of the EU Physical Agents Directive

By **Dr Andrew P Jones**, Chair BIR MR Safety Working Party.

The BIR MR Safety working party has continued to maintain its involvement in the latest developments regarding the EU Physical Agents Directive. The Directive was adopted by the European Union in 2004. It contains limits for occupational exposure to time-varying magnetic fields and to radiofrequency, adopted from guidelines previously issued by ICNIRP in 1998. In October 2007, the European Commission announced a four-year delay in implementing the Directive as a direct result of pressure from professions involved in MRI who recognised the severe impact on the ability to perform MR examinations and on the future development of new MR techniques.

During the last year

Various things have happened over the last year and a half since the official announcement of this delay. Interestingly, The Alliance for MRI was successful in getting last minute additions to a resolution on the health effects of electro-magnetic fields (EMF) passed by the European Parliament on 1 April 2009. The additions included the following powerful statements: "whereas the use of Magnetic Resonance Imaging (MRI) must not be threatened by Directive 2004/40/EC as MRI technology is at the cutting edge of research, diagnosis and treatment of life-threatening diseases for patients in Europe", along with a call on the Commission to "find a solution enabling Directive 2004/40/EC to be implemented more rapidly and thus ensure that workers are properly protected against EMFs, just as they are already protected under two other Community acts against noise and vibration and to introduce a derogation for MRI under Article 1 of that Directive." Whilst these statements are very

encouraging, it should be remembered that the European Commission is not bound by any resolutions passed by the European Parliament. Nevertheless, these are encouraging signs.

Impact Assessment questionnaire

Recently, a formal Impact Assessment by the Commission has been set up. As part of the Impact Assessment, a group entitled FICETTI (a consortium lead by the Finnish Institute for Occupational Health) carried out a questionnaire assessment of the opinions on a set of possible options for the revision of the Directive. This questionnaire was an opportunity for those with a particular perspective on the possible impact of the EMF Directive to provide input to the European Commission's process of assessment of impact of the EMF Directive. The questionnaire assessed the impacts of different policy options about the health and safety requirements regarding the exposure of workers to the risks arising from physical agents (electromagnetic fields). Of the various options proposed there was an informal consensus amongst those associated with using MRI in the healthcare and research sectors for policy option C1. This option proposed that new exposure limit values based on the latest international recommendations are introduced.

However, conditional exemptions are foreseen for specific cases which mean that some activities will be exempted from requirement for compliance with the exposure limit values of the Directive, but would still remain subject to a general EMF risk management requirement. Employers should be able to show that no harm could come to workers from direct EMF health risks or from indirect risks, such

as risks from ferromagnetic projectiles or interference with implanted medical devices. There appears anecdotally to be a developing consensus that this option could form a practical solution for both the Commission and for MRI users.

More to come...

Currently the Commission is carrying out a Social Sector Partner consultation, which is a two stage process due to conclude in November 2009. This process is a social dialogue where the Commission will contact various social sector partner organisations asking for their opinion on the Directive. The defined social sector partners include the ETUC, small businesses, CEEP, HOSPEEM and various other organisations.

Additionally, we have recently seen the publication of the long-awaited new ICNIRP guidelines on static field exposure. This document will almost without doubt form the basis of static field exposure limitation in the revised Directive. Furthermore, the draft new ICNIRP Guidelines on Limiting Exposure to Time-Varying Electric and Magnetic Fields (1Hz to 100 kHz) have been released for consultation and these may also form the basis for the latest international recommendations referred to in any new revision of the Directive.

It is clear that there is still much activity regarding the possible revisions to the Directive and, as deadlines approach, the timescales for the various parts of the revision process seem very restrictive to allow a full consideration of all the information. The BIR Safety Working Party will continue to stay actively engaged in all possible ways to affect a sensible outcome for MRI and will keep BIR members updated concerning this matter.

Regional Branches Investing in Local Initiatives

The Welsh Branch of the BIR has invested in a new online teaching website - Swansea Radiology. The aim of this website is to provide an easily accessible resource for medical students. The site is open to all students, and was launched in November 2008.

What is Swansea Radiology?

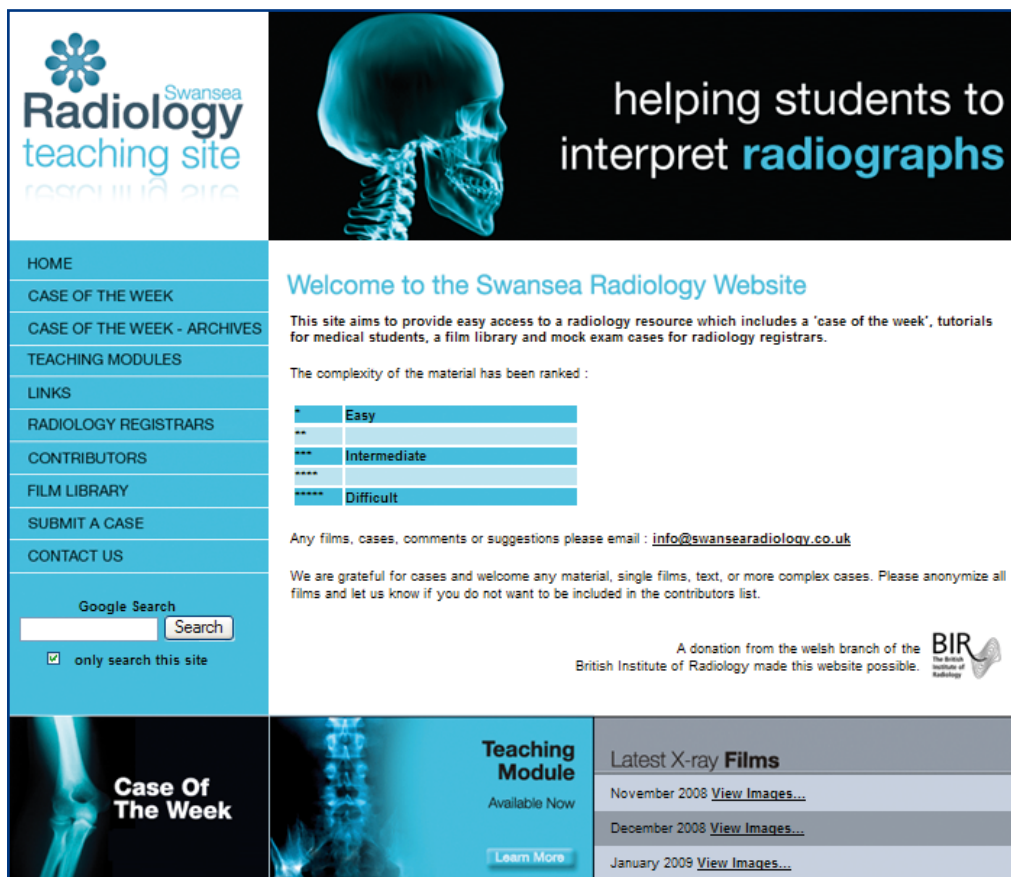
The content of the website includes a case of the week, along with two teaching modules. Its creator is currently working on more teaching modules and a film library to be ready for the autumn intake of students.

Dr Sian Jenkins set up the website for two key reasons. Firstly, as a response to medical students' requests and secondly, as a development from the already "Case of the Week" system at Morriston Hospital, Swansea. "There was already a 'case of the week' displayed using a light box and hard copy in the corridor of the hospital. When this case changed every week there was no way of providing access to the old 'case of the week'. It was felt that this was a waste of good radiological cases and that it would be useful to display these on a website".

No password or registration is needed to log on to the site, which allows for straightforward access. As a result, the site has received visitors from all over the world – for August 2009, visitors from the USA exceeded those from UK!

A project supported by the BIR's Welsh Branch

Dr Colin Davies, Chairman of the Welsh Branch of the BIR, explains why they decided to support the project: "The project was innovative, educational and most importantly capable of being developed for the benefit of all trainees in Wales. It also has the capability to be



Swansea Radiology teaching site

helping students to interpret radiographs

HOME
CASE OF THE WEEK
CASE OF THE WEEK - ARCHIVES
TEACHING MODULES
LINKS
RADIOLOGY REGISTRARS
CONTRIBUTORS
FILM LIBRARY
SUBMIT A CASE
CONTACT US

Google Search

 only search this site

Welcome to the Swansea Radiology Website

This site aims to provide easy access to a radiology resource which includes a 'case of the week', tutorials for medical students, a film library and mock exam cases for radiology registrars.

The complexity of the material has been ranked :

*	Easy
**	
***	Intermediate

*****	Difficult

Any films, cases, comments or suggestions please email : info@swanseeradiology.co.uk

We are grateful for cases and welcome any material, single films, text, or more complex cases. Please anonymize all films and let us know if you do not want to be included in the contributors list.

A donation from the Welsh Branch of the British Institute of Radiology made this website possible.

Case Of The Week

Teaching Module
Available Now
[Learn More](#)

Latest X-ray Films

November 2008	View Images...
December 2008	View Images...
January 2009	View Images...

useful to non radiological trainees and radiographers. Financially supporting the project was therefore within the aims and objectives of both the Branch and the parent body."

BIR Branch Coordinator, Chloe Scragg commented: "This is a great example of how the development of the regional branches of the BIR can help benefit not only the BIR members regionally, but also the radiological community worldwide as a whole. The Welsh Branch has become involved in an excellent initiative from the Swansea team, and one we are proud to support."

Dr Jenkins is constantly on the look

out for new material for the site: "Any cases, comments, advice are very welcome! We are developing a page on the website which will make it easy to submit a case – it is hoped this will be available in the autumn. Comments, (good and bad!) are very welcome".

For further information

www.swansea-radiology.co.uk

or

email: info@swansea-radiology.co.uk



Radiology in Belgium

This summer, the BIR interviewed Prof Geert Villeirs, President of the Royal Belgian Radiological Society (RBRS), concerning the RBRS and also Dr Denis Henroteaux who taught us more about his profession as interventional radiologist at the CHR, Liege.

Prof Villeirs, could you please tell us more about the RBRS?

It's a not-for-profit society of about 1,200 radiologist members (we cover 70% of the radiologists in Belgium, both Flemish and French speaking), which was founded in 1906. It endorses a high standard of education in radiology. The Society supports continuous education, organises scientific meetings and promotes basic and clinical research in the field of radiology.

With regards the structure, there are nine subsections such as thoracic, musculoskeletal, breast, etc. which organise three or four meetings per year. They do state-of-the-art lectures and give the opportunity to present case reports. We also produce a bi-monthly journal (Belgian Journal of Radiology) devoted to diagnostic and interventional imaging, related imaging sciences and continuing education.

When issues arise in the Belgian radiological field, does the RBRS deal directly with the government?

In Belgium, apart from the RBRS which is a scientific organisation, there is the National Union of Radiologists (NUR) whose core function is the professional defence of Belgian radiologists. Above these two organisations, there is the Consilium Radiologicum, a board of 12 members who are the spokespeople liaising with government. Any matters arising from government or health insurance companies are run past the Consilium Radiologicum first. If needed, they can contact the RBRS or the NUR for further advice. For example, they could then say: "this is a scientific issue, we need advice from the RBRS". According to the kind of issue, e.g. thoracic, it then goes to the relevant subsection which gives scientific advice, proof which the spokesman in



the Consilium Radiologicum will use when conferring with the government.

As President of the RBRS, what do you appreciate the most?

I like it all! I have contact with many radiologists, know what's going on in the Belgian radiological world and I get to meet a lot of people which is very nice and is something that remains through time. It's a good opportunity. There is also work that I have to do such as organising the Society's Annual Meeting, six board meetings a year, which I chair, and encourage the best performance of the Society.



Dr Henroteaux, what is your field of expertise?

Interventional radiology, which is an integral part of Radiology. It has recently been recognised as a well-defined subspeciality by the European Union of Medical Specialists, which wasn't the case until now. This is a big step for interventional radiology.

What made you choose this sector?

This field is a speciality in which one invests a lot and so one needs a certain enthusiasm. When I started in radiology, I was asked to do a little bit of vascular radiology and it caught on! I then got interested in vascular imaging because all of the history of interventional radiology originates from there.

What do you enjoy the most in your profession?

Everything! Especially being able to use the technology in order to treat patients. The main difference from "pure" radiology is that a pure radiologist deals with a large volume of images and often views them over the internet. For example, in the UK, certain services subcontract their work by sending

their images to India. In interventional radiology, this is impossible because there is direct contact with the patient. This is an essential difference compared with the pure radiological imaging field where one looks at an image, makes a diagnosis and doesn't necessarily have contact with patients.

Are there cases that interest you more than others?

Here at the CHR of Liege, which is a general hospital that encompasses all fields except transplantation, there is an important gynaecology and obstetrics team. I have developed an expertise in postpartum haemorrhage treatment, especially in women who have undergone a Caesarean section but in whom the placenta remains attached to the inner surface of the uterus. Untreated, this can lead to a high risk of bleeding during birth.

SINAPSE - Scottish Imaging Network: Platform for Scientific Excellence

SINAPSE is the abbreviation for “Scottish Imaging Network - Platform for Scientific Excellence” which focuses on MRI, PET, SPECT, EEG and ERPs technologies. **Dr Janet De Wilde**, SINAPSE Coordinator, based at the University of Edinburgh, tells us more about it.

The Network

SINAPSE (Scottish Imaging Network – Platform for Scientific Excellence) is a consortium of six Scottish universities (Aberdeen, Dundee, Edinburgh, Glasgow, St. Andrews and Stirling), that was established in August 2007 with funding from the Scottish Funding Council, the Chief Scientific Office and the universities. The consortium has created a strong dynamic network for a shared multi-centre research environment which aims to lead to advances in brain imaging research. Our focus is primarily on the technologies of magnetic resonance imaging (MRI), positron emission tomography (PET), single photon emission computed tomography (SPECT), electrophysiology (EEG) and event-related potentials (ERPs).



Imaging researchers attending SINAPSE Annual Scientific Meeting 2009.



Professor Keith Muir, SINAPSE Chair, giving a lecture at the SINAPSE Annual Scientific Meeting 2009.

Researchers in imaging

The network has increased the number of key imaging researchers across all levels. Chair appointments have been made in stroke imaging and MRI with further professorial appointments underway. Key post-doctoral appointments have been made in the areas of physics, image acquisition, fMRI paradigm design, image analysis, informatics and radiochemistry. Research radiographers have also been funded by imaging centres. One of the most exciting parts of SINAPSE is for early career research scientists with the appointment of 24 postgraduate research students. The studentships have been very popular with large numbers of very high quality applicants. A key factor for those applying for both studentships and staff posts was the opportunity to be part of a wide well-established network and to join in the activities that this brings.

Imaging skills training across the network

The SINAPSE network provides students with a strong cohesive doctoral training programme between universities, allowing them to develop their careers and effectively establishing a future generation of imaging researchers in Scotland.

Multi-centre research

By cross-centre collaboration, SINAPSE has made progress in research and research support. There has been the implementation of cross-centre standardised quality assurance protocols for imaging systems. Several excellent image processing methods are emerging for brain volume measurement, tractography and tissue segmentation and are being shared across centres. A portal to provide access for all centres to a wide range of image processing

tools is being piloted. SINAPSE has also played a key role in the task of improving data transfer between the NHS and universities. SINAPSE hosted a MIDAS (medical imaging data access and sharing) seminar in March 2009. Attendees were from both the university and NHS sector and an excellent discussion resulted in a report being circulated widely and a follow-on meeting planned with the NHS PACS committee in August. Improving translation between animal and human imaging is also a key aim for the network. A committee has been established to ensure that both animal and human imaging researchers are communicating and working together. Furthermore, joint working between centres has resulted in making systematic literature reviews faster, less burdensome for the individual and more interesting. Publications are accumulating and a central repository for SINAPSE publications is being piloted.

SINAPSE and knowledge exchange

From industry, politicians, policy makers, to the public; SINAPSE has been active in distributing its knowledge and learning from others. For example, a public engagement workshop called "getEmotional" has been developed by SINAPSE students and staff. The activities provide an opportunity for families with young children to find out more about

human expressions of emotion and how scientists use imaging tools in their research to see the emotional brain at work. The first public "getEmotional" event was held at the Royal Botanical Gardens in Edinburgh on 7 March 2009. This event was part of the National Science and Engineering Week and was supported with funds from both SINAPSE and Edinburgh Neuroscience. The event was extremely successful with approximately 250 people visiting. The second event we held was at the Sensation Science Centre in Dundee as part of Brain Awareness Week on 21 March 2009. Both SINAPSE staff and students incorporated the emotion-themed activities into the broader scope of Brain Awareness Week which included activities and experiments covering a wide variety of topics such as attention and motor control. SINAPSE PhD students, who helped during these events, gained an enormous amount of experience from explaining the brain in a clear and straightforward manner as well as learning how to be entertaining and engaging.

SINAPSE has also played a key role in the discussions and policies concerning the ethics of brain imaging. The team has secured funding from the Wellcome Trust for a UK-wide seminar on the Ethics of Research Imaging (how to handle incidental findings in research and the



Public engagement event at the Botanical Gardens in Edinburgh. SINAPSE students teaching the public about neurons.

expectations of participants). This will take place in London in 2010. Further more, SINAPSE is actively involved in the discussions around ethics of functional brain imaging. We are in discussion with Scotland's Future Forum and the Institute of Advanced Studies to arrange activities to bring this topic to the attention of politicians, policy makers and the public.

Industrial collaborations have been forthcoming particularly in radiochemistry and image processing. Industry has been very interested in talking to a consortium rather than each university separately. SINAPSE has provided researchers with a strong platform from which to engage with a wide range of companies from SME's to multinationals, those that develop imaging scanners or imaging software through to pharmaceutical companies.

To find out more about SINAPSE activities please visit the website

www.sinapse.ac.uk



SINAPSE students and staff at a residential PhD induction 2008.

Meeting BIR Members

Dr Yen-Ch'ing Chang - Clinical Oncologist

Dynamic young mother, Dr Chang is a Clinical Oncologist working at UCH, Great Ormond Street Hospital and Barnet Hospital. She met with the BIR to give us more details concerning her work.



As a clinical oncologist, what do you do?

The main part of my job is to treat people with cancer. Clinical oncologists treat people with cancer using both systemic treatments such as chemotherapy and hormone therapy as well as radiotherapy. I subspecialise mainly in paediatric radiotherapy, but also have an interest in prostate cancer and skin cancer. About 80% of my time is spent looking after children with cancer.

I am increasingly involved in the training of both medical students and trainees within clinical oncology.

It must be quite tough...

Most people say "It must be tough looking after children with cancer" However I think that there are challenges in looking after nearly any group of patients with cancer.

As an oncology trainee, I found it quite hard to look after patients who were around my age because I empathised with them as well as those with young families: to tell a young mother or father that they have an incurable cancer and that they are inevitably going to leave

a child or a group of young children without a parent... it's devastating.

I also find it very hard to see elderly couples where one of them needs admission and may not make it out of the hospital because they are so unwell. And there they are in front of you, saying something that is very heartbreaking such as: "but we've never been apart since the War...".

So although it can be very hard to look after children, they are very resilient. They are very optimistic and can cope with treatment incredibly well. Also, compared with adults, we have better results in treating children with cancer. Children who present with metastatic cancer are still potentially curable whereas most adult cancers with metastases are not curable.

Have you seen a lot of progress in oncology throughout the last years?

Since I've started training, I think the biggest progress is the huge input from IT making more complex planning such as IMRT possible. Advances in imaging are allowing us to have more information about tumour characteristics and applications such as image fusion enable us to fuse a diagnostic image such as MR with a planning CT which changed the way in which tumour volumes are defined.

One of the newest advances in technology is proton therapy which I am extremely interested in - the advantage of being able to treat tumours to a high dose whilst sparing normal tissue is extremely exciting. As children requiring radiotherapy have the most to gain from this, I think proton therapy will be one of the biggest steps in progress in my working lifetime.

In your opinion, what are the

challenges in oncology in general?

I suppose that one of the challenges is to ensure that everybody throughout the country has equal access to radiotherapy and cancer treatment. On a more personal professional level, it is keeping up to date with all the new advances in treatment and technologies relevant to oncology.

As a BIR member, do you think you have more access to knowledge in your field and the sectors linked to it?

I think so, yes. The BJR is incredibly useful, having articles on both radiology as well as radiotherapy. I find that the technical radiology articles are interesting because they explain how images are obtained and explain any uncertainties and variables associated with their acquisition.

If you understand those uncertainties then you can understand how they impact on radiotherapy planning.

Oncology is also multidisciplinary in its very nature and we need to interact with all the various professional groups within the BIR.

The meetings are also very useful particularly because they are multidisciplinary. The most recent one that I attended was the President's Meeting on proton therapy, which was excellent.

Finally, when you aren't running between hospitals and patients, what do you do in your free time?

Well, I suppose—what free time? (laugh) I like spending a lot of time at home with the children, just doing normal family things such as going to a garden centre or spending time at home in the garden. It is quite fun being with the family.

BIR accredited ISO 9001

The British Institute of Radiology is pleased to announce that it has achieved ISO 9001 accreditation.

This means that from now on, the BIR will use the BSI kitemark. This is your assurance that samples of BIR's products and services are regularly subjected to rigorous, independent testing to ensure that they comply with stringent standards for safety, product performance or reliability. In addition, the kitemark also means that the BIR's quality systems are systematically assessed. The kitemark is therefore BIR's commitment towards maintaining the highest possible standards.



BIR Conference & Marketing Departments merge into one!

Since the beginning of September, the BIR Conference & Events and the BIR Marketing Departments have been merged to form the BIR Marketing & Events Department.

In the last couple of months, the BIR has seen a lot of changes and is now happy to announce that its Conference & Events and Marketing departments have finally merged together. The outcome of this action is increased efficiency, communication and a better quality of service.

The new head of department, Lizette Van Niekerk, comments: "The new department will enable the BIR to take a more strategic approach to delivering high quality services to our Members and expanding to new clients".

To find out more about the activities of the department, visit our website or contact the Marketing & Events Department on 020 7307 1403.

BIR Library

New hours for BIR Library support and advice.

The Librarian will be available to help, advise visitors and take care of other enquiries between 9.00am - 5.00pm, Monday to Wednesday.

If you wish to have research-skills training, this will be available on these days.

Please note that the Librarian will be on leave from 21 September until 5 October 2009.



BIR opens its doors on Tuesday 27 October

The BIR is based at a four storey listed building in central London - a perfect venue for holding meetings and conferences. If you haven't seen the facilities yet, our Open Day is on Tuesday 27 October. This will be an ideal opportunity for you to view the venue and find out more about the room hire and catering services we offer!



On Tuesday 27 October, the BIR will organise a tour of all of its meeting rooms and facilities. A demonstration will be held in the Siemens lecture theatre to show the recording capabilities. This special event will allow everyone to find out or reacquaint themselves with this fantastic venue and its helpful staff, while enjoying refreshments.

For more information: email: sophie.erpicum@bir.org.uk or call: 020 7307 1403.

Games and Competition

Autumn sudoku fun

For those who don't know this game yet, Sudoku is a logic-based, combinatorial number-placement puzzle. The objective is to fill a 9×9 grid so that each column, each row, and each of the nine 3×3 boxes (also called blocks or regions) contains the digits from 1 to 9 only one time each.

Completed puzzles are usually a type of Latin square with an additional constraint on the contents of individual regions. Leonhard Euler is sometimes incorrectly cited as the source of the puzzle, based on his related work with Latin squares.

(Source: Wikipedia)

3			7	4				
		2		3			6	
6		1	2					
2			8					
		4		7		5		
					5			6
					2	4		3
	9			5		6		
				6	9			8

Win a £75 Voucher at Selfridges & Co!

How to win this prize?

Very easy! Reply to the questions below and send your answers to marketing@bir.org.uk with your name and contact details by **Monday 9 November 2009**. (Terms and conditions apply)

Questions:

1. What is the Impact Factor 2008 of the BJR?
2. With whom does Dr Chang spend about 80% of her working hours?
3. Where is the Lower GI Cancer meeting on 06.11.09 taking place?
4. What does the content of the Swansea Radiology website include?
5. Who wrote the article concerning Pugwash?
6. What did the FICETTI recently carry out?
7. Which accreditation has the BIR recently achieved?
8. What is happening at the BIR on 10 December 2009?

Winner of the Summer BIR Newsletter prize (weekend in Stratford-upon-Avon): Dr Kate Swainson.

Independent Diagnostic Imaging Company: MedTel

MedTel are an established, independent diagnostic imaging company specialising in open MRI and are now offering consultation and treatment at their Harley Street and City of London Medical Centres

What can MedTel offer?

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For further information and referrals please: Call 0800 028 2288 or Visit www.medtel.co.uk

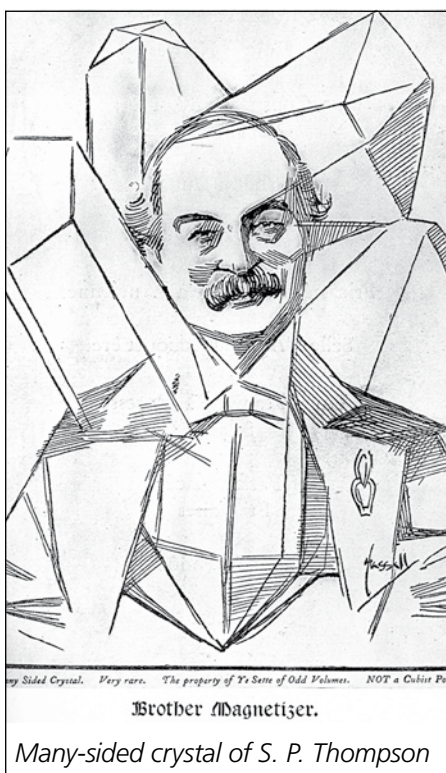
Silvanus Phillips Thompson

When talking about radiology history, awards and prizes, we often hear the name S. P. Thompson. **Dr Adrian Thomas**, *Honorary Librarian and Archivist* gives us a brief picture of this great man who made an impact on the radiological world.

It all started in 1876...

Silvanus Thompson was born to a Quaker family in 1851, the year of the Great Exhibition. This was a time of rapid scientific advancement. The European rivalries were to find their apotheosis in the Great War of 1914-1918 which caused much distress to Silvanus Thompson at the end of his life (he died in 1916).

In 1873 Silvanus Thompson was made the science master at Bootham School. On Friday, 11 February 1876, he heard Sir William Crookes give an evening discourse at the Royal Institution on The Mechanical Action of Light where Crookes demonstrated his radiometer. Thompson was intrigued and developed a major interest in optics (his other major interest being electromagnetism). In 1876, he was appointed as a lecturer in physics at the University College in Bristol, and was made Professor in 1878 at the age of 27.



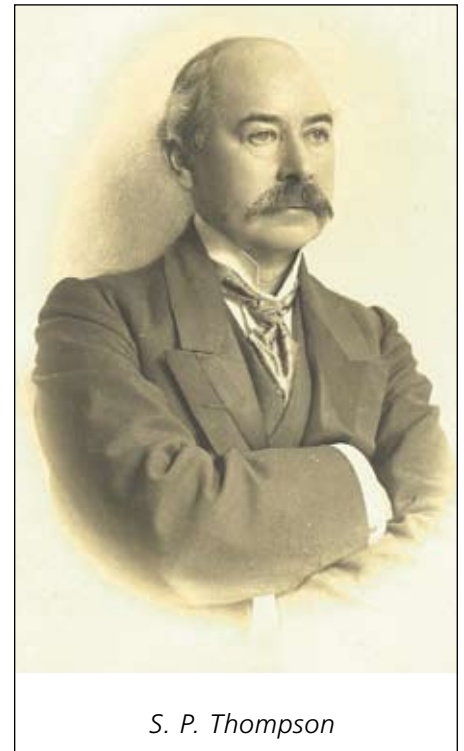
Scientific knowledge put into action thanks to technical education

Thompson was interested in technical education and made a series of continental tours to compare the European approach to that in the UK. In 1879, he presented a paper to the Society of Arts where he detailed the deficiencies in technical education in England. In the discussion, the opinion was expressed that England was too conservative to make use of trade schools and that continental methods would not be applicable in the UK. Thompson recognised that technical education was the means by which scientific knowledge could be put into action and spent the rest of his life realising this vision. In 1878, the City & Guilds of London Institute for the Advancement of Technical Education and Finsbury Technical College were founded. Thompson was the Principal and Professor of Physics.

He wrote many technical books including *Elementary Lessons in Electricity & Magnetism* (1890), *Dynamo Electrical Machinery* (1896) and the classic *Calculus Made Easy* (1910). Thompson was committed to truth in all aspects and his 1915 Swarthmore Lecture, delivered to the Society of Friends, was *The Quest for Truth*, indicating his belief in truth and integrity in all aspects of our lives.

A born professor

Silvanus Thompson's particular gift was in his ability to communicate difficult scientific concepts in a clear and interesting manner. He gave the Royal Institution Christmas lecture in 1896 on *Light, Visible and Invisible* with an account of Röntgen Light. He had very many interests including painting, working in his greenhouse and literature. He wrote biographies on Michael Faraday and



Lord Kelvin. He also wrote about William Gilbert, the Elizabethan physician, and produced a magnificent edition of Gilbert's *De Magnete* published by Chiswick Press in 1900. His scientific library of historical and working books is preserved intact at the Institution of Electrical Engineers and is a wonderful collection (he was at one time President of the IEE).

Thompson repeated Röntgen's experiments on the day after the discovery was announced in the UK and gave the first public demonstration of the new rays at the Clinical Society of London on 30 March 1896. He was the first President of the Röntgen Society which became the British Institute of Radiology. He described the society as being between medicine, physics and photography. It was his genius that put a stamp on the society which has made it the rich amalgam of medical, scientific and professional members that it is today.

12 Months Already



This column will be published as I begin my second year as President so this is a natural time to reflect on the last 12 months and look forward to the next.

The last year has been more demanding than I ever imagined and I have relied heavily on my fellow Trustees as we worked through the challenges presented to us. Their support has been considerable and invaluable, and I am very pleased that the difficult times are now in the past and we are looking positively to the future. Success is usually built on doing the basics well and in the last few weeks the team in Portland Place has delivered some very important achievements. We now have ISO 9001 accreditation for the activities of the Institute, giving confidence to existing and potential customers that we are intent on delivering the very best services to them. Our team have organised an excellent UKRC (again) and we have seen the Impact Factor of

our flagship journal, BJR, increase from 1.8 to 2.36 – a huge step up. Given the importance of BJR to the financial health of our Institute, this latest figure is very encouraging.

These hugely positive developments have been accompanied by significant changes in the staff of the Institute. I am very pleased that we have recently welcomed a new General Secretary to lead our team in Portland Place. As you may have read in the previous BIR News, Jacqueline Fowler comes to us after a highly successful time with the Royal College of Surgeons. I am already seeing the benefits of Jacquie's experience and hope you will take time to welcome her to the BIR when you next have the chance.

The BIR is a charity under UK law, and we gain significant advantages from this status. However we do not generally see ourselves as a charity that raises money to support our activities. Considering the long and proud history of our Institute this is not surprising, and there is much to be said for relying on our established strengths to generate our annual income. However I am confident that we have much to gain by bringing our activities into the minds of the public at large.

Next year will give us a great opportunity to celebrate the unique contribution that our country has made to the development of ultrasound through a special exhibition we are organising in

collaboration with BMUS. The theme will be the centenary of the birth of Ian Donald, one of the pioneers of ultrasound and the exhibition will show how this imaging technique has transformed lives, particularly the lives of women, as it has become widely available.

Following the success of our art exhibition, this week-long event will give us another chance to welcome the public into the Institute and place our charitable activities into the minds of a wider community. I hope that these and other similar events will lead eventually to an appreciation of the BIR charity which extends far beyond the radiology community.

The next year promises much. No doubt there will be challenges but we are ready for them.

A handwritten signature in blue ink that reads "Stuart Green".

Stuart Green
BIR President

BIR News Notes – August 2009



Letters to the President:

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