

# Radiology 1997

International Convention Centre and  
National Indoor Arena, Birmingham

19 - 21 May

## C O N T E N T S

Organizing Bodies and Committees	Programme 2
Acknowledgments	Programme 3
Accreditation	Programme 3
Message from the Chairman of the Congress Committee	Programme 4
General Information	Programme 5
Personal Profiles: Eponymous Lecturers	Programme 10
<b>Daily Programme Grids and Personal Planners</b>	
Monday	Programme 14
Tuesday	Programme 16
Wednesday	Programme 18
List of MED X RAY® Exhibitors	Programme 20
<b>Scientific Programme</b>	
Monday	Programme 21
Tuesday	Programme 28
Wednesday	Programme 35
List of Scientific Posters	Programme 41
List of <i>infoRAD</i> ™ Exhibits	Programme 42
<b>Abstracts</b>	
Monday	1
Tuesday	31
Wednesday	57
Posters	77
<i>infoRAD</i> ™	111
Work in Progress	117
Student Work	133
Index to authors	137
Maps	Inside back cover and facing page

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## ORGANIZING BODIES

Radiology 1997 is a joint meeting held by the British Institute of Radiology, the College of Radiographers, the Institute of Physics & Engineering in Medicine and the Royal College of Radiologists, and in association with the British Medical Ultrasound Society, the British Nuclear Medicine Society, the Royal College of Surgeons in Ireland - Faculty of Radiologists, the Institution of Electrical Engineers - Science, Education and Technology Division, the Royal Society of Medicine - Radiology Section and the Scottish Radiological Society.

## ORGANIZING COMMITTEES

### Congress Committee

#### **Members**

Chairman - Professor J E Adams

Dr S J Golding  
Mrs J Henderson  
Dr M J Brindle  
Professor P N T Wells  
Dr A M Davies  
Mr J Wilkinson  
Dr P L P Allan  
Dr P Williams  
Dr C A Lewis  
Dr J Olliff  
Mrs E Beckmann

#### **Secretariat**

Ms J Clark *BIR Conference Manager*  
Miss D Huntley *BIR Conference Assistant*  
Ms V Whitehead *BIR Conference Consultant*  
Miss F McClain *BIR Exhibition & Events Co-ordinator*  
Ms M-A Piggott *BIR Chief Executive*  
Mr S Evans *COR Chief Executive*  
Mrs S Bernard *COR Seminar Officer*  
Mr A J Cowles *RCR General Secretary*  
Mr R Neilson *IPEM General Secretary*

### Scientific Programme Committee

#### **Members**

Dr P L Allan *Co-Chairman*  
Dr A M Davies *Co-Chairman*  
Mr J Wilkinson *Co-Chairman*  
Dr P C Williams *Co-Chairman*  
Dr W Morgan  
Dr P J D K Dawes  
Mrs J Henderson  
Ms D Hardy  
Dr J Olliff  
Dr S Padley  
Dr D Cunningham  
Ms C Beardmore  
Mrs J Shrimpton

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Miss F McClain *BIR Exhibition & Events Co-ordinator*  
Ms M-A Piggott *BIR Chief Executive*

## SPECIALIST AREA ORGANIZERS

### **infoRAD™ Exhibition**

Mrs E Beckmann  
Dr E Berry

### **Scientific Poster Exhibition**

Dr J Olliff

## **ACKNOWLEDGMENTS**

The Chairmen and Members of the Congress Committee for Radiology 1997 would like to thank the following organizations for their support of the Congress:

Amersham International Plc  
Chapman & Hall  
Cook (UK) Ltd  
Copelco Ltd  
Evans Medical Ltd  
HBO & Company  
Imation UK Ltd  
Kodak Ltd  
Lodestone Patient Care  
M.A.S. Medical Ltd  
Mallinckrodt Medical UK Ltd  
Nycomed  
Picker International Ltd  
RAD Magazine  
Siemens Medical Engineering Plc  
Schering Health Care Ltd  
Sterling Diagnostic Imaging (UK) Ltd  
Toshiba Medical Systems Ltd

## **ACCREDITATION**

The Royal College of Radiologists has awarded 20 Continuing Medical Education (CME) credits.

The Institute of Physics & Engineering in Medicine has awarded Continuing Professional Development (CPD) credits at 1 unit per educational hour with a maximum of 10 units per day.

The Institution of Electrical Engineers has awarded 3/4 professional development units (pdu) per one hour of interactive CPD (not including questions and answers) and 1/2 pdu per one hour of attendance.

The UK Association of Sonographers: Accreditation has been applied for.

## MESSAGE FROM THE CHAIRMAN OF THE CONGRESS COMMITTEE

Dear friends and colleagues

It is my privilege and great pleasure to welcome you most warmly to Radiology 1997 - Imaging, Science & Oncology.

The contents of this programme and abstracts book are testimony to the exciting and diverse topics within the clinical and scientific fields of radiology. There should be something here for everyone - to learn, to be stimulated and inspired, and to marvel at the tremendous and rapid technological developments in the radiological sciences. However, it is essential that we remain focused on the ultimate aims and objectives of such developments which are improved diagnosis and patient care, and that we examine critically the cost and effectiveness of our interventions. Only through such an approach can we justify and secure strong support for the radiological sciences in an environment of finite healthcare and research resources.



The programme has a strong and varied multidisciplinary scientific content which includes categorical and refresher courses, 'state-of-the art' symposia and special focus sessions. There are over 140 invited speakers, seven parallel sessions and nine prestigious eponymous lectures of the organizing institutions, to be delivered by outstanding speakers who are experts in their fields. In the scientific sessions colleagues will share with us their research data in the forefront of our disciplines, both in imaging morphology and function, and in improving patient care and outcome.

The Congress will run in parallel with MED X RAY®, which is the largest technical exhibition in the United Kingdom related to the radiological sciences. Here, industry has the opportunity to present its products, both new and established. I urge delegates to visit this industrial showcase which is sited in the National Indoor Arena, where over 200 scientific posters and *infoRAD*™ exhibits will also be displayed.

With a full scientific programme during the day it is important that delegates have time to relax and meet with new and old friends. I am sure that the social events, which include a visit to the Barber Institute of Fine Art, the newly opened National Sea Life Centre, Ronnie Scott's Jazz Club, Bobby Brown's Disco and the Congress Dinner and Dance in the elegant Grand Hotel, provide suitably varied environments for us all to have fun.

Organizing such a large, prestigious and multidisciplinary meeting is a considerable undertaking by many. I express my gratitude to the sponsoring organizations (British Institute of Radiology, College of Radiographers, Institute of Physics & Engineering in Medicine and Royal College of Radiologists), colleagues on the Congress Committee, the Scientific Programme Committee, and the Congress secretariat.

I extend a warm welcome to all delegates, and particularly to those from overseas. I hope that you find the Congress both stimulating and enjoyable. Its success depends on your enthusiasm and strong support. With this the meeting can go from strength to strength in the years ahead, and be an investment in scientific and technical developments of the future, providing an environment which can nurture and stimulate those who will innovate and lead such advances.

Professor Judith Adams  
Chairman, Congress Committee

## GENERAL INFORMATION

### Congress Site

Radiology 1997 takes place at the International Convention Centre (ICC) in Birmingham. MED X RAY® is situated a five minute walk away in the National Indoor Arena (NIA). The two sites are linked by a covered walkway. Signage is supported by Toshiba Medical Systems.

Sessions will take place as shown on the timetable grid (see Programme pages 14 - 19). A layout map of the ICC can be found on the inside back cover of this publication.

### Registration

Registration will take place in the Registration Area of the ICC and will be open at the following times:

Radiology 1997 Opening Times	
Sunday 18 May	14.00 - 18.00
Monday 19 May	07.00 - 17.00
Tuesday 20 May	07.30 - 17.00
Wednesday 21 May	07.30 - 14.00

Upon registering you will be issued with a delegate badge, tickets for any social events booked and any relevant accreditation certificates. You will also receive a delegate bag, supported by Imation UK Ltd and MED X RAY®, containing important meeting information. This will include the poster, *infoRAD*™ and MED X RAY® exhibition guides and a pad and pen supported by Lodestone Patient Care.

### Congress Badge

Your badge will be printed with your name and hospital/institution/company name and **must be worn at all times when attending the Congress**. This badge entitles you to admission on the days on which you are registered to all lectures at Radiology 1997 and the technical exhibition MED X RAY®. The badge is supported by Mallinckrodt Medical Ltd.

Those badges that have ribbons attached indicate the following groups of people: Congress President, Chairpersons, Invited Speakers, Guests, Secretariat, Congress Committee Members, Stewards, Helpers and Press.

### Certificate of Attendance

Certificates of attendance will be issued by the Congress Secretariat on request.

### Accreditation

Members of the RCR and IPEM will be issued with accreditation certificates upon registration. Accreditation certificates for members of the IEE and UKAS (subject to approval) are available on request.

### Business/Press Centre

A Business/Press Centre will be situated in the registration area of the ICC, providing office support services. The fax number in the centre is 0121 665 6024. This facility is generously supported by Schering Health Care Ltd.

### Messages

Messages for delegates will be posted on message display boards located in the Registration Area. The telephone number at the ICC registration area is 0121 644 6841. The main Convention Centre telephone number is 0121 200 2000.

### Telephones

Pay telephones are available throughout the ICC and NIA.

### MED X RAY® Exhibition

Britain's premier technical exhibition devoted to radiological, radiographic and related sciences will be held in conjunction with Radiology 1997 in the NIA. Over 110 manufacturers and suppliers of leading edge technology will be exhibiting their latest products. Please see programme page 20 for a list of exhibiting companies.

Your Congress badge will give you free access to MED X RAY®.

### **infoRAD™**

Situated within the MED X RAY® exhibition *infoRAD™* will comprise a number of state-of-the-art computer displays giving delegates an opportunity for “hands on” experience of new technology. Please see programme page 42 for the list of exhibits.

*infoRAD™* is a trade name used by kind permission of the RSNA.

### **Scientific Poster Exhibition**

Posters, forming a major part of the scientific programme, will be displayed in the NIA within the MED X RAY® exhibition. Please see programme page 41 for more details.

MED X RAY® <i>infoRAD™</i> Poster Exhibition	
Opening Times	
Monday 19 May	0900 - 1730
Tuesday 20 May	0830 - 1730
Wednesday 21 May	0830 - 1630

### **Catering**

Points dispensing **complimentary** beverages will be open throughout the day in the MED X RAY® exhibition at the NIA. Lunch will be available in the café and exhibition area on a cash basis on the ground floor of the NIA. There is a coffee shop in the ICC mall.

### **Cloakrooms**

Cloakrooms are available in the Mall at the ICC and in the foyer of the NIA.

### **First Aid**

A Medical Centre is located in the ICC and NIA and staffed during opening hours. The Medical Centre can be contacted by using the NIA or ICC house telephones and dialling 5155. In an emergency, dial 2222.

### **Facilities on Site**

The Mall at the ICC offers the following facilities:

- Box Office for booking tickets for events in Symphony Hall, NIA and NEC
- Post box and postage stamp machine
- Forthcoming events information
- National Westminster Bank (with cash dispensing facility)
- Freephone service for taxis (Taxi Owner's Association)
- Visitors' Services Centre providing - fax, photocopying and other business services and a local information and booking facility from the Birmingham Convention and Visitor Bureau

### **Car Parking**

There are 2600 car parking spaces available at the NIA. These are available on a pay and display basis.

### **Orientation**

Please see the back of this book for layout maps of the ICC.

### **Spouses/Partners**

Accompanying spouses/partners of registered delegates will be entitled to visit, on production of a lapel badge available at registration, the technical exhibition and the eponymous lectures.

## **PRIZES**

The following prestigious prizes and awards will be awarded at Radiology 1997.

### **BIR Amersham Prize**

The Amersham Prize of £100 is awarded through a generous donation by Amersham International Plc. The prize is open to all proffered papers on nuclear medicine.

### **BIR Clinical MRI Prize**

A cheque for £50 and a commemorative statuette are awarded to the presenter (under 40 years of age and a BIR Member) of the best proffered paper on MRI. This prize is generously donated by Clinical Press Ltd.

### **BIR Leonard Levy Memorial Prize**

This prize was established in 1992 by Mr Bennett-Levy and Levy Hill Laboratories in memory of the late Dr Leonard Levy. The prize takes the form of a book token or cheque up to the value of £125 and is open to members of the BIR under 30 years of age presenting the best paper at the Congress.

### **COR Beth Whittaker Memorial Poster Prize**

A prize of £50 is awarded to the best poster presented at the Congress by a radiographer or a team of presenters headed by a radiographer.

### **COR Alan Nicholls Award**

This award of £100 is awarded to the best proffered paper presented by a radiographer.

### **COR Forder Memorial Award for Students**

A prize of £50 is awarded to the best proffered paper by a student at the COR Annual Student Conference.

### **RAD Magazine Best Poster Prize**

This prize was established in 1992 by Kingsmoor Publications Ltd, publishers of RAD Magazine, to encourage and maintain a high standard of visual presentation for scientific posters. All posters will automatically be considered and prizes for 1st, 2nd and 3rd place are awarded.

### **RCR Couch Award**

Two awards of £250 each (books) are made to the clinical radiologist below the level of consultant presenting the proffered paper(s) adjudged to be the best.

### **IPEM President's Prize**

This prize is awarded for the best oral presentation by a member of the IPEM aged under 35 years.

### **IPEM Physics Poster Prize**

This prize is awarded to the best poster exhibit on a medical physics topic.

### **HBO & Company *infoRAD*<sup>TM</sup> Prize**

A prize of £150 will be awarded to the best proffered paper or exhibit on the use of information technology within a radiology department at the annual Congress. A highly commended award (certificate only) will also be presented.

### **Radiology 1997 Annual Poster Quiz**

A poster quiz will be held in the National Indoor Arena as part of the Scientific Poster Exhibition. There will be five cases each day, using cases from The Royal London Hospital and The London Radiology Club. There will be a first prize of a £500 grant towards a visit to RSNA. In addition there will be a daily prize of book tokens worth £100. The Radiology 1997 Quiz is supported by Merck Radiology.

## **SOCIAL ACTIVITIES**

This years' excellent social programme will provide delegates and accompanying persons with plenty of opportunities for enjoyment, relaxation and perhaps most importantly the chance to meet with old friends and make new ones.

### **Sunday 18 May 1997**

#### *Informal Welcome Gathering* *18.00-19.00 hours*

An informal gathering at the International Convention Centre to enable you to meet your fellow delegates.

Cost: Free

#### *BIR Birthday Celebration at the National Sea Life Centre*

*19.00 - 21.30 hours*

A cocktail reception and guided tour of the National Sea Life Centre in Brindley Place has been organized to celebrate the 100th Birthday of the BIR. All are welcome to attend.

Cost: £23.50 to include drinks, buffet, tour and VAT.

### **Monday 19 May 1997**

#### *The Barber Institute of Fine Art - Private Tour*

*19.00 - 21.30 hours*

A private viewing of one of the finest picture galleries in the world together with wine and a buffet. Supported by Picker International.

Cost: £21.50 to include, buffet, wine, tour, coach transport and VAT.

#### *Ronnie Scott's Jazz Club*

*19.30 - 02.00 hours*

Delegates can spend an evening in this exciting café bar and jazz club in the heart of the entertainment quarter of Birmingham.

Cost: £16.00 to include admission and VAT only.

#### *Disco at Bobby Brown's - The Club*

*21.00 - 01.00 hours*

Delegates will have the exclusive use of Bobby Brown's The Club. A former canalside warehouse, it has been converted into the most original nightclub in town.

Cost: £6.00 to include admission and VAT only.

### **Tuesday 21 May 1997**

#### *Congress Dinner and Dance*

*19.30 - 01.00 hours*

The Congress Dinner and Dance will be held in the newly refurbished Victorian elegance of the Ballroom of the Grand Hotel in the centre of Birmingham. Dress will be black tie/dark suit. Supported by Copelco, Siemens and Sterling Diagnostic Imaging.

Cost: £36.00 to include dinner, wine and VAT.

Admission for these events is by ticket only
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It may be possible to obtain tickets for some of these events from the Radiology 1997 registration area at the ICC.

## **ACCOMPANYING PERSONS PROGRAMME**

The following programme of tours organized by Flights Conference Services Ltd has been arranged for people accompanying delegates to Radiology 1997. There are two full day tours and one half day tour. Full details are available from the Radiology 1997 Secretariat or Flights Conference Services who are located in the mall of the ICC (Tel: +44 (0)121 212 4433).

### **Monday 19 May 1997**

#### *Blenheim Palace, Woodstock and The Cotswolds - One Day Tour*

Located within the beautiful village of Woodstock, Blenheim Palace, the birthplace of Sir Winston Churchill, was built for John Churchill, 1st Duke of Marlborough, and is one of the finest examples of English Baroque.



The palace is set within over 2000 acres of magnificent landscaped parkland created by Capability Brown.

The Cotswolds are considered to be one of England's greatest areas of outstanding beauty. Famous market towns such as Chipping Campden, Stow-on-the-Wold, and picture-postcard honey coloured villages such as Broadway and Burford sit within rolling hills and deep wooded valleys.

Cost: Adult £23.00 Child £18.50

### **Tuesday 20 May 1997**

#### ***Stratford-upon-Avon - One Day Tour***

After travelling through the beautiful Warwickshire countryside, the tour will arrive at Wilmcote for a visit to Mary Arden's House (Shakespeare's mother), an outstanding example of a Tudor Farmstead.

The tour will then continue on to Stratford-upon-Avon, a very attractive market town set on the banks of the River Avon, the birthplace of William Shakespeare. A visit will be made to Shakespeare's Birthplace in Henley Street, a well-preserved, half-timbered building, housing the impressive Shakespeare Exhibition.

Free time for shopping and sightseeing at leisure will be available before returning to Birmingham.

Cost: Adult £24.00 Child £17.50

### **Wednesday 21 May 1997**

#### ***Birmingham City Centre and the Botanical Gardens - Half Day Tour***

A short panoramic tour of Birmingham City Centre and surrounding areas will be given before reaching the Botanical Gardens, where the 15 acres of ornamental gardens will delight both the botanist and layman. Rhododendrons, Rock gardens and Waterfalls, the Rose Garden, Herb and Cottage Gardens are amongst the many to be wandered around. The Glass Houses feature lush tropical vegetation including banana and cocoa plants; and a wide

variety of palms, orchids and insect eating plants can be seen in the Palm House. The themed gardens take you to the Amazon, the Mediterranean and the Desert.

Cost: Adult £16.50 Child £11.00

## **SPORTING COMPETITIONS**

### **Sunday 18 May 1997**

#### **Radiology 1997 Fishing Competition**

The Fishing Competition will be held at Poole Hall Fisheries, in Shropshire. The competition, sponsored by Kodak Ltd, is to be judged by the total length of the fish caught, measuring each fish in cm from the point of the nose to the fork of the tail. The winner will hold the Schering Healthcare Trophy for one year.

This competition has been organized by Dr W Jones, Cookridge Hospital, Leeds.

### **Monday 19 May 1997**

#### **Radiology 1997 Golf Competition**

The competition is organized on behalf of the Radiology Golfing Society by Dr David Rickards, London. The competition will be held at South Staffs Golf Club near Wolverhampton. It is an all day event with a snack lunch and dinner with prize giving in the evening. There will be individual stableford in the morning and probably a Texas Scramble in the afternoon following a good lunch!

Cost: no more than £50.00 including golf, lunch, dinner and VAT.

## EPONYMOUS LECTURERS

MACKENZIE DAVIDSON MEMORIAL LECTURE

Monday 19 May 12.00 - 12.45

**Professor A R Margulis: Radiology in the Best of Times and the Worst of Times**



Professor Alexander Margulis graduated from Harvard Medical School with an MD in 1950. His appointments include: Residency in Radiology, University of Michigan, Ann Arbor; American Board of Radiology 1954; Assistant Professor, University of Minnesota, Minneapolis, and Assistant, Associate and Full Professor, Washington University, St Louis. He was Professor and Chairman, Department of Radiology, University of California, San Francisco from 1953 to 1989, and from 1989 to 1993 was Professor of Radiology, Associate Chancellor of Special Projects and Director, Magnetic Resonance Science Centre. Since 1993 he has been Special Consultant to the Vice Chancellor for University Advancement and Planning, University of California, San Francisco, and Professor of Radiology.

Professor Margulis has seven honorary doctorates, multiple gold medals and many honorary memberships in radiological societies throughout the world.

He is also a member of numerous US and international editorial boards of medical journals. He has written over 250 articles concerned with gastrointestinal radiology, magnetic resonance imaging in magnetic resonance spectroscopy and radiologic and health policy issues. His most important books include: Alimentary Tract Radiology, four editions (C.V. Mosby, St Louis), Clinical Magnetic Resonance Imaging 1983, and Biomedical Magnetic Resonance Imaging 1984 (both Radiology Research and Education Foundation). He has been Scientific Director, STAR (Schering Training in Advances in Radiology), 1993, Chairman of the Board of ITI Medical Technologies, 1995, Chairman of the Medical Advisory Board R-2 Technologies, 1995 and member of the Board of Directors, Acuiimage.

WILLIAM STRIPP MEMORIAL LECTURE

Monday 19 May 13.00 - 13.45

**Mrs C A Westbrook: Backs to the Future - Protons or Photons?**



Catherine Westbrook qualified from St Thomas' Hospital, London in 1981. She worked at St Mary's Hospital, London until 1984 when she took 3 years out to have two children. In 1987 Catherine worked as a basic grade at the Princess Margaret Hospital, Swindon, before moving to the Radcliffe Infirmary, Oxford, as a Senior II in 1988. She developed an interest in neuroradiographic cross-sectional imaging and then moved to the MRI centre at the John Radcliffe, Oxford, as a Senior I in 1990.

In 1994 she took up a post as Education and Research Co-ordinator for Oxford University. Catherine's interests are primarily education and research. She has written two best selling books "MRI in Practice" and "Handbook of MRI techniques" which are used by radiographers and radiologists world-wide. In 1996 she became the first person in the world to gain an MSc in MRI. Her thesis investigated the clinical, legal and ethical issues of children who have cerebral palsy and undergo MRI in the process of litigation.

Catherine is the Past President of the British Association of MR Radiographers and Chairperson of the Consortium for the Accreditation of Clinical MR Education.

GEORGE SIMON LECTURE

Monday 19 May 17.15 - 18.00

**Dr D Hansell: CT of the Lungs: Above and Beyond the Diagnosis**



Dr David Hansell is a Consultant Radiologist at the Royal Brompton Hospital and is research team leader of the thoracic imaging group which is part of the Academic Department of Imaging of the National Heart and Lung Institute at Imperial College, London. He has published widely on all aspects of pulmonary radiology. His main interests are diffuse lung disease, particularly the investigation of the functional consequences of morphological abnormalities detected by high resolution computed tomography. More recently his attention has turned to the possibilities of applying sophisticated image processing to volumetric CT data; this work continues a quest for the accurate quantification of elusive small airways disease.

## SILVANUS THOMPSON MEMORIAL LECTURE

Tuesday 20 May 12.00 - 12.45

### Dr D Scott: Heterogenicity of Human Response to Ionizing Radiation



Dr David Scott obtained a BSc (Class I) from the University of Wales in 1959 and a PhD from the University of Reading in 1967.

David commenced his career at the MRC Radiobiology Unit at Harwell in 1959. In 1968 he went to the University of California, San Francisco Medical Center for two years. Since 1971 David has been working at the CRC Department of Cancer Genetics, Paterson Institute for Cancer Research, Manchester. In 1981 he was promoted to Head of Department.

From 1983 to 1988 David was Editor-in-Chief of the "International Journal of Radiation Biology".

David's current research interests include: the investigation of inter-individual differences in cellular response to radiation and its relationship to cancer predisposition and response to therapy; a study of the underlying mechanisms, and the development of predictive assays.

He is currently serving on the National Radiological Protection Board Advisory Group on Ionizing Radiation.

## SIR PETER KERLEY LECTURE

Tuesday 20 May 13.00 - 13.45

### Professor M Remy-Jardin: Spiral CT of Pulmonary Vessels



Professor Remy-Jardin was Associate Professor at the Calmette Hospital, University of Lille from 1989 until 1991 when she became Professor of Radiology.

She has several specialty certifications: Specialty Board Certification in Radiology 1986, National Certification in Medical Research 1990, Specialty Board Certification in Pulmonology 1993 and she was awarded a PhD, University of Lille in 1993.

Professor Remy-Jardin is a member of several review groups and has held editorial positions on several magazines. She is also editorial board member of "Radiology" and "European Radiology" (both since 1995). She is currently a journal reviewer for Radiology (1992) and received the Editor's Recognition Award with Special Distinction for Manuscript Reviewing in 1993, European Radiology (1994), Review Française des Maladies Respiratoires (1992) and the Journal de Radiologie (1992).

Professor Remy-Jardin's fields of research interest include: HRCT of diffuse infiltrative lung diseases; development of automatic pattern recognition algorithms; spiral CT imaging technical developments and thoracic applications, and endovascular treatment of haemoptysis embolotherapy of pulmonary circulation.

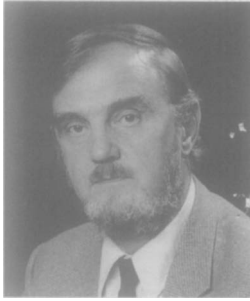
Publications are numerous with 79 peer reviewed publications, 103 scientific papers, 15 book chapters and 2 books.

Professor Remy-Jardin's membership of professional and scientific societies include: Fleischner Society; RSNA; the American Thoracic Society; European Association of Radiologists; Society of Thoracic Radiology; Société Française de Radiologie; European Society of Thoracic Imaging, and the Société d'Imagerie Thoracique.

## THE DOUGLAS LEA MEMORIAL LECTURE

Tuesday 20 May 17.15 - 18.00

### Professor G E Adams: Radiation, Hypoxia and Genetic Stimulation: Implications for Future Therapies



Ged Adams began his career as a physical chemist, taking his PhD at the University of Manchester. After short post-doctoral appointments in the USA and France he joined the late L H Gray in his unit at Mount Vernon Hospital, Northwood, later to become the Gray Laboratory. He rapidly became introduced to radiobiology and remained at the Unit for 16 years rising to become Deputy Director.

In 1977 he was appointed to the Chair of Physics as Applied to Medicine at the Institute of Cancer Research where he remained until his appointment as Director of the MRC Radiobiology Unit near Harwell in 1983. While the bulk of the work of the Radiobiology Unit was concerned with new developments in genetics and experimental radiobiology, he introduced a broad programme of experimental oncology with interests in the development of hypoxia-based approaches to new applications in clinical oncology. He retired as Director of the Radiobiology Unit in September 1995.

He is a past Chairman of the Association of Radiation Research, UK and a past President of the International Association of Radiation Research. He holds awards from both organizations, the Weiss and the Henry Kaplan medals. He is a long-standing member of the BIR and holds the Silvanus Thompson medal for 1979. In 1996 he was awarded the Klass Breur Medal by the European Society for Therapeutic Radiology and Oncology. He is also Past Chairman of the British Association for Cancer Research; Past President of the Radiation Research Society of the USA, and Past President of the British Institute of Radiology.

Professor Adams is currently Chairman of the Gray Laboratory Cancer Research Trust. He has received an honorary Doctorate from the University of Bologna, is a Fellow of the Academy of Sciences in Bologna, and is an honorary Fellow of the American College of Radiology. For many years he was active in cancer charities and for 10 years served as Chairman of the Scientific Committee of the Imperial Cancer Research Fund. He is also active in various other European and UK scientific bodies.

## BIR/IMATION MAYNEORD MEMORIAL LECTURE

Wednesday 21 May 12.00 - 12.45

### Professor L Dalla Palma: Diagnostic Imaging and Interventional Therapy of the Hepatocellular Carcinoma



Ludovico Dalla Palma has been Professor of Radiology and Chairman of the Department of Radiology at the University of Trieste since November 1969.

He has held several Presidencies: President of SIUMB - Italian Society of Ultrasound in Medicine and Biology from 1988 to 1989; President of ESUR - European Society of Uroradiology from 1990 to 1994; President of SIRM - Italian Society of Medical Radiology from 1992 to 1996, and President of EAR - European Association of Radiology from September 1993 until March 1995.

Professor Dalla Palma has been a member of the Executive Board of the International Society of Radiology since 1994. He is an Honorary Member of ten National Societies of Radiology and Honorary Fellow of the American College of Radiology. He was also a Programme Leader of the Halley Project in Eastern Europe from 1992 to 1996.

Professor Dalla Palma is author of over 260 papers on diagnostic radiology, radiotherapy, and radiobiology. His main interest is focused on diagnostic imaging of abdominal radiology and PACS.

**Mrs J Young: Psychosocial Support for Cancer Patients - The Future**



Judy Young trained as a therapy radiographer in the mid 60s and worked in various London teaching hospitals and abroad, before becoming Superintendent Radiographer at the Middlesex and St Bartholomew Hospital.

Judy has always been interested in Cancer Psychology, and in 1989 was appointed to Mount Vernon Hospital to set up the Counselling Service. In 1993 the Lynda Jackson Macmillan Centre for Cancer Support and Information was opened at Mount Vernon Hospital, where Judy is both manager and Head of Counselling.

FINZILECTURE

**Professor J O Barentsz: Advanced MRI of the Pelvis**



Jelle Barentsz is Professor of Radiology at the Department of Radiology, University Hospital Nijmegen where he is Head of Clinical Research. He has experience with MR since 1985, with his specialty being body-MR with emphasis on the pelvis. In 1990 he finished a PhD thesis about MR imaging of urinary bladder carcinoma.

He is one of the major authors of more than 50 international papers and has won more than 15 prizes for exhibitions and presentations. Currently he is working on several other papers and a chapter on Clinical Urography.

He is on the Board and Committees of several international organizations, and regularly presents refresher courses at major radiology meetings (ECR, RSNA, Gleneagles, etc).

RADIOLOGY 1997 - SESSION TYPES	
<b>Scientific Session (SS)</b>	- Proffered presentations on themed areas
<b>Categorical Course (CC)</b>	- Invited reviews of areas with current themes underpinned by current theory
<b>Refresher Course (RC)</b>	- Invited reviews of areas of current standard practice
<b>State of the Art Symposium (SAS)</b>	- Invited reviews on the latest developments in topical areas
<b>Special Focus Session (SFS)</b>	- Invited reviews on multidisciplinary topics
<b>Eponymous Lectures (EL)</b>	- Invited reviews organized by sponsoring/supporting organizations
<b>Work in Progress (WIP)</b>	- Presentations of research work not yet complete, but with early results believed to be significant

MONDAY 19 MAY	0 0 8 0 0 0	0 9 1 5	0 9 3 0	1 0 4 5	1 0 1 0	1 1 3 4	1 1 0 5	1 1 4 0	1 2 0 5	1 2 3 0	1 2 4 5	1 3 0 5	1 3 1 5	1 4 3 0	1 4 4 5	1 5 0 5	1 5 1 5	1 6 3 0	1 6 4 5	1 7 0 5	1 7 1 5	1 8 7 0	1 8 4 5	1 0 5 0		
Hall 1		Scientific Session Musculoskeletal Imaging 1	Special Focus Session How to Get Your Paper Published	Eponymous Lecture BIR Mackenzie Davidson	Eponymous Lecture COR William Stripp	Scientific Session Musculoskeletal Imaging 2	Work in Progress Bones & Musculoskeletal	Eponymous Lecture ROR George Simon																		
Hall 9	Refresher Course Diagnosis of Venous Thrombo- embolism		State of the Art Symposium Professional Development			State of the Art Symposium Japanese Radiology Now	State of the Art Symposium Child Protection & Radiography																			
Hall 10a	Scientific Session Spinal MRI	Scientific Session Radiotherapy & Oncology 1	Scientific Session Radiotherapy & Oncology 2			State of the Art Symposium Physics of Radiotherapy	Scientific Session Radiotherapy & Oncology 3																			
Hall 10b	Categorical Course Musculo- skeletal Ultrasound 1	State of the Art Symposium Synchrotron Radiation	State of the Art Symposium Particle Therapy			State of the Art Symposium Radiation Protection - an Update	State of the Art Symposium Radiation Protection - Communication	Scientific Session Radiation Protection - Dose																		
Hall 11a	Categorical Course Vascular Interventional Radiology 1	Scientific Session Vascular Interventional Radiology	Scientific Session Vascular Imaging			Scientific Session Hepatobiliary Imaging	Scientific Session Stents & the Gastrointestinal Tract																			
Hall 11b	Refresher Course Sedation & Resuscitation	Scientific Session infoRAD™ 1	Scientific Session Bone Densitometry			Scientific Session Magnetic Resonance Techniques	Scientific Session infoRAD™ 2	Categorical Course Musculo- skeletal Ultrasound 2																		
Olympian Suite		Scientific Session Chest Imaging	State of the Art Symposium Imaging Drug-induced Disease			Scientific Session Chest CT	Categorical Course Vascular Interventional Radiology 2																			

# PERSONAL PLANNER

# MONDAY 19 MAY

Morning

Afternoon

Evening


<i>Hall</i>	<i>Morning</i>	<i>Afternoon</i>
Hall 1	Musculoskeletal Imaging 1 (SS) How to Get Your Paper Published (SFS)	BIR - Mackenzie Davidson Memorial Lecture (EL) COR - William Stripp Memorial Lecture (EL) Musculoskeletal Imaging 2 (SS) Bones & Musculoskeletal (WIP) RCR - George Simon Lecture (EL)
Hall 9	The Diagnosis of Venous Thromboembolism (RC) Professional Development (SAS)	Japanese Radiology Now (SAS) Child Protection & Radiography (SAS)
Hall 10a	Spinal MRI (SS) Radiotherapy & Oncology 1 (SS) Radiotherapy & Oncology 2 (SS)	Physics of Radiotherapy (SAS) Radiotherapy & Oncology 3 (SS)
Hall 10b	Musculoskeletal Ultrasound 1 (CC) Synchrotron Radiation (SAS) Particle Therapy (SAS)	Radiation Protection - An Update (SAS) Radiation Protection - Communication (SAS) Radiation Protection - Dose (SS)
Hall 11a	Vascular Interventional Radiology 1 (CC) Vascular Interventional Radiology (SS) Vascular Imaging (SS)	Hepatobiliary Imaging (SS) Stents & the Gastrointestinal Tract (SS)
Hall 11b	Sedation & Resuscitation (RC) infoRAD™ 1 Bone Densitometry (SS)	Magnetic Resonance Techniques (SS) infoRAD™ 2 Musculoskeletal Ultrasound 2 (CC)
Olympian Suite	Chest Imaging (SS) Imaging Drug-Induced Disease (SAS)	Chest CT (SS) Vascular Interventional Radiology 2 (CC)

SOCIAL EVENTS		
The Barber Institute of Fine Art - Private Tour 1900 - 2130	Ronnie Scott's Jazz Club 1930 - 0200	Disco at Bobby Brown's - The Club 2100 - 0100

TUESDAY 20 MAY	0 8 0 0	0 8 0 0	0 9 1 5	0 9 3 0	0 9 4 5	1 0 1 5	1 0 3 0	1 0 4 5	1 1 3 0	1 2 4 5	1 2 3 0	1 3 0 5	1 3 1 5	1 4 3 0	1 4 4 5	1 5 1 5	1 6 3 0	1 6 4 5	1 7 0 5	1 7 1 5	1 7 3 0	1 7 4 5	1 8 0 5	1 8 4 0	1 9 0 5					<i>Eponymous Lecture</i> IPEM Douglas Lea
<b>Hall 1</b>	Scientific Session Spiral CT		Scientific Session Breast Imaging	Eponymous Lecture BIR Sivvanus Thompson		Eponymous Lecture RCR Sir Peter Kerley		Special Focus Session Film Viewing			Special Focus Session Digital Imaging - an Historical Overview																			
<b>Hall 9</b>	Refresher Course Breast Biopsy	State of the Art Symposium Environmental Radiation	Scientific Session Radiography - Diagnostic Imaging & Radiotherapy	Eponymous Lecture BIR Sivvanus Thompson		Eponymous Lecture RCR Sir Peter Kerley		COR Student Conference			COR Students' Scientific Session																			
<b>Hall 10a</b>	Categorical Course Vascular Interventional Radiology 3	Scientific Session infoRAD™ 3	Scientific Session Radiotherapy & Oncology 4					Scientific Session infoRAD™ 4																						
<b>Hall 10b</b>	Refresher Course Nuclear Medicine in Oncology	State of the Art Symposium Nuclear Medicine/Breast Imaging	Scientific Session MR Angiography					Scientific Session & Work in Progress Nuclear Medicine			Scientific Session MRI of the Breast																			
<b>Hall 11a</b>	Refresher Course Percutaneous Gastrostomy	Work in Progress Breast	Scientific Session MRI of the Lower Gastro- intestinal Tract					Scientific Session Gastrointestinal Tract			Scientific Session Genitourinary Tract Interventional Techniques																			
<b>Hall 11b</b>	Refresher Course Investigation of Neonatal Vomiting	Invited Review Assessment Procedures for Radiologists	Work in Progress Vascular & Interventional Radiology					State of the Art Symposium Management & Procurement			Refresher Course Management																			
<b>Olympian Suite</b>	Categorical Course Musculo- skeletal Ultrasound 3	State of the Art Symposium MRI in Paediatrics	Work in Progress Gynaecology & Oncology					State of the Art Symposium Management & Procurement			Scientific Session Paediatric Imaging																			



# PERSONAL PLANNER

# TUESDAY 20 MAY

Morning

Afternoon

Evening


<i>Hall</i>	<i>Morning</i>	<i>Afternoon</i>
Hall 1	Spiral CT (SS) Breast Imaging (SS)	BIR - Silvanus Thompson Memorial Lecture (EL) RCR - Sir Peter Kerley Lecture (EL) Film Viewing (SFS) Digital Imaging - An Historical Overview (SFS) IPEM - Douglas Lea Memorial Lecture (EL)
Hall 9	Breast Biopsy (RC) Environmental Radiation (SS) Radiography Diagnostic Imaging & Radiotherapy (SS)	College of Radiographers - Student Conference College of Radiographers - Student Papers (SS)
Hall 10a	Vascular Interventional Radiology 3 (CC) infoRAD™ 3 Radiotherapy & Oncology 4 (SS)	infoRAD™ 4 Vascular Interventional Radiology 4 (CC)
Hall 10b	Nuclear Medicine in Oncology (RC) Nuclear Medicine Breast Imaging (SAS) MR Angiography (SS)	Nuclear Medicine (SS) MRI of the Breast (SS) Imaging of the Pharynx & Oesophagus (RC)
Hall 11a	Percutaneous Gastrostomy (RC) Breast (WIP) MRI of the Lower Gastrointestinal Tract (SS) Gastrointestinal Tract (SS)	Genitourinary Tract Imaging (SS) Genitourinary Tract Interventional Techniques (SS)
Hall 11b	Investigation of Neonatal Vomiting (RC) Assessment Procedures for Radiologists (Invited) Vascular & Interventional Radiology (WIP) Management & Patient Care (SS)	Management & Procurement (SAS) Management (RC)
Olympian Suite	Musculoskeletal Ultrasound 3 (CC) MRI in Paediatrics (SAS) Gynaecology & Oncology (WIP)	Paediatric Imaging (SS) Controversies in Functional MR Imaging (SAS)

**SOCIAL EVENTS**  
Congress Dinner Dance - The Grand Hotel 1930 - 0100



# PERSONAL PLANNER

# WEDNESDAY 21 MAY

Morning

Afternoon

Evening


<i>Hall</i>	<i>Morning</i>	<i>Afternoon</i>
Hall 1	European Radiology - Opportunities for Collaboration (SAS) 100th BIRthday Symposium - History	BIR - Imation Mayneord Memorial Lecture (EL) RSM - Finzi Lecture (EL) 100th BIRthday Symposium - Future
Hall 9	British Institute of Radiology - Annual General Meeting & Awards Ceremony British Institute of Radiology - Presidential Address College of Radiographers - Presidential Address The Future of Radiography (SAS)	COR - Stanley Melville Memorial Lecture (EL) College of Radiographers - Awards Ceremony British Institute of Radiology - BIRthday Debate
Hall 10a	Vascular Interventional Radiology 5 (CC) Radiographic Reporting (WIP) Gastrointestinal Tract (WIP)	Radiography (WIP)
Hall 10b	Lasers in Medicine (RC) Imaging Technology 1 (SAS & SS) Imaging Technology 2 (SAS)	Physics Mammography (SS & WIP) Protection of the Patient (SS & WIP)
Hall 11a	Bariums in the 90s (RC) CT of the Colon (SS) Gynaecological Imaging (SS)	Obstetric Imaging (SS)
Hall 11b	Transrectal US & Prostate Biopsy (RC) Cardiac Imaging 1 (SS) Coronary Arteriography (SAS)	Cardiac Imaging 2 Neuroradiology (WIP)
Olympian Suite	MRI & Intracranial Infection (RC) Neuroradiology 1 (SS) Neuroradiology 2 (SS)	ENT Imaging (SS) infoRAD™ 5

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*List of exhibitors correct as at 3.4.97*

Programme 20

## MONDAY 19 MAY 1997

### REFRESHER COURSE *Hall 9 0800 - 0845* *DIAGNOSIS OF VENOUS THROMBOEMBOLISM* [p. 1]

- Chairman: *I Wells*  
**0800** Diagnosis of Venous  
*Invited Review* Thromboembolism  
*J H Reid, Borders General Hospital,  
Roxburghshire*

### SCIENTIFIC SESSION *Hall 10a 0800 - 0850* *SPINAL MRI* [pp. 1-2]

- Chairman: *L A Williams*  
**0800** Fast Scanning of the Lumbar Spine - Use  
of a Single  $T_2$  Sagittal Sequence  
*J J Rankine, University of Manchester*  
**0810** Lumbar Spine MRI: Can Fast  
Spin-Echo Proton Density Replace  
Spin Echo  $T_1$  Axial Scans?  
*W C G Peh, The University of Hong  
Kong, HONG KONG*  
**0820** Pathological Findings on MRI of the  
Lumbar Spine in Junior Cricket Fast  
Bowlers  
*D Walker, Royal Brisbane Hospital,  
AUSTRALIA*  
**0830** MR Vertebral End Plate Changes and  
Back Pain  
*I W McCall, Keele University, Oswestry*  
**0840** Dynamic Function MRI of the Cervical  
Vertebral Column in Patients with  
Rheumatoid Arthritis  
*K-H Allmann, Freiburg University,  
GERMANY*

### CATEGORICAL COURSE *Hall 10b 0800 - 0850* *MUSCULOSKELETAL ULTRASOUND 1* [p. 2]

- Chairman: *A P Coral*  
**0800** Shoulder Ultrasound  
*Invited Review* *E G McNally, Nuffield Orthopaedic  
Centre, Oxford*  
**0825** Ultrasound of Elbows, Hands and  
*Invited Review* Wrists  
*W W Gibbon, The General Infirmary  
at Leeds*

### CATEGORICAL COURSE *Hall 11a 0800 - 0845* *VASCULAR INTERVENTIONAL RADIOLOGY 1* [p. 2]

- 0800** Venous Intervention  
*Invited Review* *J E Jackson, RPMS, Hammersmith  
Hospital, London*

### REFRESHER COURSE *Hall 11b 0800 - 0850* *SEDATION & RESUSCITATION* [pp. 2-3]

- Chairman: *P Sidhu*  
**0800** Sedation  
*Invited Review* *G Lyons, St James's University  
Hospital, Leeds*  
**0825** Resuscitation of Patients in an Imaging  
*Invited Review* Department  
*P Sidhu, King's College Hospital,  
London*

### SCIENTIFIC SESSION *Olympian Suite 0845 - 1015* *CHEST IMAGING* [pp. 3-4]

- Chairman: *S Padley*  
**0845** Radiological Presentation of Traumatic  
Pneumothoraces on Admission: Supine  
Chest Radiographs  
*M Easty, The Royal London Hospital*  
**0855** How Do Clinicians Interpret the  
Indeterminate VQ Scan Report?  
*P G Kember, Northern General Hospital,  
Sheffield*  
**0905** Evaluation of CT Prior to Bronchoscopy  
in Patients with Bronchial Carcinoma  
*C R Pal, The Churchill Hospital, Oxford*  
**0915** Patterns of Local Recurrence in Non-small  
Cell Lung Cancer Following Curative  
Radiotherapy  
*D Sheppard, UTMD Anderson Cancer  
Center, Texas, USA*  
**0925** MRI of Treated Thymic Lymphoma - A  
Comparison with CT  
*J E S Husband, Royal Marsden Hospital,  
Surrey*  
**0935** Cine or Video MRI of the Mediastinum:  
Demonstration of Rigidity in Cases of  
Malignancy  
*M P Callaway, Bristol Royal Infirmary*  
**0945** The Changing Face of Industrial Lung  
*Invited Review* Disease  
*P M Taylor, Central Manchester  
Healthcare Trust*

### SCIENTIFIC SESSION *Hall 1 0900 - 1020* *MUSCULOSKELETAL IMAGING 1* [pp. 4-5]

- Chairman: *R Whitehouse*  
**0900** MRI vs Bone Scintigraphy in the Early  
Diagnosis of Occult Scaphoid Fracture: A  
Comparative Study  
*J C M Fowler, UHW Healthcare NHS  
Trust, Cardiff*  
**0910** The Use of MRI in the Detection of  
Radiographically-Occlude Scaphoid  
Fractures  
*J P R Jenkins, Manchester Royal Infirmary*  
**0920** MRI in Brachial Plexus Avulsion  
Injury: Evaluation of a New Technique  
*S Pender, Beaumont Hospital, Dublin*  
**0930** The Role of Echo Time in Reducing the  
MR Magic Angle Signal Artefact in  
Tendons  
*W C G Peh, The University of Hong Kong,  
HONG KONG*  
**0940** A Preliminary Study of *In Vivo* Proton  
Magnetic Resonance Spectroscopy in  
Chronic Polymyositis and Dermatomyositis  
*Y-L Chung, King's College Hospital,  
London*  
**0950** The Unstable Ankle  
*Invited Review* *L A Williams, Cardiff Royal Infirmary*

**SCIENTIFIC SESSION Hall 10a 0900 - 1010**  
**RADIOTHERAPY & ONCOLOGY 1 [pp. 5-6]**

- Chairman: *P J D K Dawes*
- 0900 Conformal Radiotherapy  
*Invited Review G Read, Royal Preston Hospital, Preston*
- 0930 3D Planning and Simulation  
*Invited Review P J D K Dawes, Northern Centre for Cancer Treatment, Newcastle-upon-Tyne*
- 1000 Optimization of Beam Orientations in Radiotherapy Treatment Planning  
*C G Rowbottom, Royal Marsden NHS Trust, Surrey*

**STATE OF THE ART SYMPOSIUM**  
**Hall 10b 0900 - 1045**  
**SYNCHROTRON RADIATION [pp. 6-7]**

- Chairman: *P C Williams*
- 0900 Synchrotron Radiation: How, Why and What?  
*Invited Review R A Lewis, Daresbury Laboratory, Warrington*
- 0925 Clinical Applications of Synchrotron Radiation  
*Invited Review C R M Boggis, Withington Hospital, Manchester*
- 0950 Initial Studies of Breast Tissue Microcalcification Structure Using Synchrotron Radiation  
*K D Rogers, Cranfield University, Swindon*
- 1000 Monochromatic Beam Mammography Using Synchrotron Radiation  
*W Thomlinson, Brookhaven National Laboratory, New York, USA*
- 1025 Mapping the Organic and Inorganic Components of Osteoporotic Bone  
*C Buckley, King's College, London*
- 1035 Determination of the Optimum Wave Length for Mammography Using Synchrotron Radiation  
*Work in Progress C J Hall, Daresbury Laboratory, Warrington*

**SCIENTIFIC SESSION Hall 11a 0900 - 1040**  
**VASCULAR INTERVENTIONAL RADIOLOGY**  
**[pp. 7-8]**

- Chairman: *M R E Dean*
- 0900 Interventional Radiology in the Chest  
*Invited Review R F Dondelinger, Centre Hospitalier Universitaire de Liege, BELGIUM*
- 0930 Randomized Comparison of Central Venous Catheter Insertion With and Without Ultrasound Guidance  
*S McPherson, Addenbrooke's Hospital, Cambridge*
- 0940 Loss of Respiratory Phasicity and Cardiac Pulsatility as a Predictor of Central Neck Vein Occlusion  
*M C Patel, Addenbrooke's Hospital, Cambridge*
- 0950 Salvage of the Solitary Kidney by Renal Artery Stenting  
*I N Gillespie, Royal Infirmary of Edinburgh*

- 1000 Complications of Thrombolysis for Acute and Subacute Lower Limb Ischaemia: A Single Centre Experience over 12 Years  
*I R Davidson, University Hospital, Nottingham*
- 1010 Mechanical High-Speed Thrombolysis in Acute Popliteal Artery Occlusions  
*F X Lenglinger, Wels General Hospital, Wels, AUSTRIA*
- 1020 Late Displacement of Prosthesis Following Endovascular Aneurysm Repair  
*S C Whitaker, University Hospital, Nottingham*
- 1030 Endovascular Repair of Aortic Aneurysms: Case Selection, Procedural Outcome and Follow-up  
*D A Gould, Royal Liverpool University Hospital*

**SCIENTIFIC SESSION Hall 11b 0900 - 1000**  
**infoRAD™ 1 [pp. 8-9]**

- Chairman: *P Sharpe*
- 0900 Using the Internet: A Simple Guide For You  
*Invited Review G R Plant, N J A Cook, The North Hampshire Hospital*
- 0940 A Radiology "Intranet" Using Web Technology  
*D J Lomas, Addenbrooke's Hospital, Cambridge*

**STATE OF THE ART SYMPOSIUM**  
**Hall 9 1000 - 1215**  
**PROFESSIONAL DEVELOPMENT [p. 9]**

- Chairman: *D Hardy / J Leighton*
- 1000 COR Opening Address  
*J Henderson, President, College of Radiographers*
- 1015 Evaluation of the Implementation and Management of Skill Mix in Diagnostic Imaging Centres - Research in Progress  
*Invited Review M J Lovegrove, South Bank University, London*
- 1100 Developing Practice in Radiography: Its Impact on the Curriculum  
*Invited Review R C Price, University of Hertfordshire*
- 1145 Open Forum

**SPECIAL FOCUS SESSION Hall 1 1030 - 1145**  
**HOW TO GET YOUR PAPER PUBLISHED [pp. 9-10]**

- Chairman: *B Worthington*
- 1030 How to Publish a Clinical Paper  
*Invited Review G H Whitehouse, University of Liverpool*
- 1045 Writing a Scientific Paper  
*Invited Review K Faulkner, Newcastle General Hospital*
- 1100 Statistics for Publication  
*Invited Review R P A'Hern, Royal Marsden Hospital, London*
- 1115 Publishing Your Paper  
*Invited Review T R Hogan, British Institute of Radiology, London*
- 1130 Discussion

## MONDAY 19 MAY

### SCIENTIFIC SESSION *Hall 11b 1030 - 1140* *BONE DENSITOMETRY [pp. 10-11]*

- Chairman: *J Adams*
- 1030** Marfan Syndrome, Osteopenia and Fractures  
*M D J Harake, North Manchester General Hospital*
- 1040** A Follow-up Study of Osteoporosis in Anorexia Nervosa  
*S A Dunne, University of Bristol*
- 1050** Value of DXA Measurement in Turner's Syndrome  
*S Vinjamuri, Royal Liverpool University Hospital*
- 1100** A Comparison of MXA and Spinal Radiography in the Detection of Vertebral Fracture  
*C E Hutchinson, University of Manchester*
- 1110** Structural Analysis of the Cortical Shell in Lumbar Vertebrae Based on HRCT Data  
*M A Haidekker, University of Bremen, GERMANY*
- 1120** Radiomorphometric Indices of the Mandible in Females  
*D Ledgerton, University Dental Hospital of Manchester*
- 1130** Densitometric Analysis of the Healing of Broken Bones in Rabbits in Low Frequency Magnetic Fields  
*M Kolenc, Teaching Hospital, Maribor, SLOVENIA*

#### STATE OF THE ART SYMPOSIUM

*Olympian Suite 1030 - 1150*

##### *IMAGING DRUG-INDUCED DISEASE [pp. 11-12]*

- Chairman: *G Ansell*
- 1030** Imaging Drug-induced Disease in the Gastrointestinal Tract  
*G Ansell, Liverpool Medical Institution*  
*Invited Review*
- 1045** Imaging Drug-induced Disease - The Chest  
*S P G Padley, Chelsea & Westminster Hospital, London*  
*Invited Review*
- 1100** Radiology of Adverse Reactions to Drugs and Toxic Hazards: Urogenital System  
*P S Sidhu, King's College Hospital, London*  
*Invited Review*
- 1110** Toxic Hazards: Central Nervous System  
*B E Kendall, Royal Free Hospital, London*  
*Invited Review*
- 1120** Imaging Drug-induced Disease: Skeleton System and Soft Tissue  
*J P Lawson, Yale University School of Medicine, Connecticut, USA*  
*Invited Review*
- 1140** Discussion

### SCIENTIFIC SESSION *Hall 10a 1045 - 1135* *RADIOTHERAPY & ONCOLOGY [pp. 12-13]*

- Chairman: *W G Jones*
- 1045** Pharmacological Modulation of Radiation-Induced Normal Tissue Injury  
*M E C Robbins, University of Iowa, USA*  
*Invited Review*
- 1115** DNA Damage Assays for Normal Tissue Radiosensitivity Testing  
*C J Orton, Christie (CRC) Research Centre, Manchester*
- 1125**  $\alpha/\beta$  Value for Radiomyelopathy From Animal Experiments  
*M Niewald, University Hospital of Saarland, Homburg, GERMANY*

#### STATE OF THE ART SYMPOSIUM

*Hall 10b 1050 - 1225*

##### *PARTICLE THERAPY [pp. 13-14]*

- Chairman: *D Errington*
- 1050** A Hundred Years - and more - of the Electron  
*D I Thwaites, University of Edinburgh*  
*Invited Review*
- 1125** The Clinical Applications of High Energy Proton Therapy: Present and Future  
*D J Cole, Churchill Hospital, Oxford*  
*Invited Review*
- 1155** Current Applications of Proton Radiotherapy  
*A Kacperk, Clatterbridge Centre, Wirral*  
*Invited Review*

### SCIENTIFIC SESSION *Hall 11a 1050 - 1150* *VASCULAR IMAGING [pp. 14-15]*

- Chairman: *D A Gould*
- 1050** Complex Superficial Femoral Veins: A Source of Diagnostic Error in the Investigation of Venous Thrombosis  
*N J Sreaton, Addenbrooke's Hospital, Cambridge*
- 1100** Surveillance of the PTFE Graft - Is It Worthwhile?  
*M A R Keane, St George's Hospital, London*
- 1110** Carotid Stenosis: Variability of Observer Measurements from Digital Subtraction Arch Angiography  
*R Razzaq, Withington Hospital, Manchester*
- 1120** Assessment of Carotid Stenosis: Comparison of CT Angiography and Digital Subtraction Angiography in 106 Arteries  
*D A Collie, Western General Hospital, Edinburgh*
- 1130** Major Artery Wall Thickness: Is There Any Relationship to Diameter?  
*C Metreweli, Prince of Wales Hospital, HONGKONG*
- 11.40** Cerebral Oedema in Acute Liver Failure: The Role of Carotid Doppler Waveform Analysis  
*R K Lenthall, King's College Hospital, London*

**BRITISH INSTITUTE OF RADIOLOGY**  
*Hall 1 1200 - 1245*  
**MACKENZIE DAVIDSON MEMORIAL LECTURE**  
*[p. 15]*  
**1200** Radiology in the Best of Times and the Worst of Times  
*A R Margulis, University of California, San Francisco, USA*

**COLLEGE OF RADIOGRAPHERS**  
*Hall 1 1300 - 1345*  
**WILLIAM STRIPP MEMORIAL LECTURE [p. 15]**  
**1300** Backs to the Future - Protons or Photons?  
*C A Westbrook, John Radcliffe Hospital, Oxford*

**STATE OF THE ART SYMPOSIUM**  
*Hall 9 1345 - 1445*  
**JAPANESE RADIOLOGY NOW [pp. 15-16]**  
 Chairman: *V R McCready*  
**1345** Use and Abuse of Abdominal Helical CT in Japan  
*Invited Review Y Hiramatsu, Toho University, Tokyo, JAPAN*  
**1410** Clinical Application of Electron-beam CT to Cardiovascular Diseases  
*Invited Review T Sekiya, Ohmiya General Hospital, Saitama, JAPAN*  
**1435** Discussion

**STATE OF THE ART SYMPOSIUM**  
*Hall 10a 1345 - 1530*  
**PHYSICS OF RADIOTHERAPY [pp. 16-17]**  
 Chairman: *B Stubbs*  
**1345** Dynamic Modulation with a Prototype NOMOS Multileaf Intensity-modulating Collimator Apparatus  
*Invited Review S Webb, The Royal Marsden NHS Trust, Surrey*  
**1410** Beam Intensity Modulation by Dynamic Multileaf Collimation  
*Invited Review D J Convery, Royal Marsden NHS Trust, Surrey*  
**1435** Enhanced Dynamic Wedge: The Introduction of Intensity Modulated Radiation Therapy into Widespread Clinical Practice?  
*Invited Review A W Beavis, Princess Royal Hospital NHS Trust, Hull*  
**1500** Experimental Verification of Beam Intensity Modulated Conformal Radiotherapy Using Patient Specific Compensators  
*O C L Haas, University of Coventry*  
**1510** Film Verification Study of a Nine Field Intensity-Modulated Plan  
*M Oldham, Royal Marsden NHS Trust, Surrey*  
**1520** Discussion

**SCIENTIFIC SESSION Hall 11b 1345 - 1505**  
**MAGNETIC RESONANCE TECHNIQUES [pp. 17-18]**  
 Chairman: *M Smith*  
**1345** Implementation of a Black-Blood Cardiac MRI Pulse Sequence Using Double Inversion Prepulses  
*J P Ridgway, The General Infirmary, Leeds*  
**1355** An Algorithm for Measurement of Left Ventricular Function from MRI  
*M P Hayball, Papworth Hospital, Cambridge*  
**1405** Multispectral Classification of Tagged Tissue in Cardiac MRI  
*W R Crum, University of Leeds*  
**1415** Measuring Synovial Volume from MR Images in Rheumatoid Arthritis  
*E Berry, University of Leeds*  
**1425** Ventricular Volume Change Computation Methodologies and Their Application in Schizophrenia  
*N Saeed, Hammersmith Hospital, London*  
**1435** Non-Invasive Vascular Occlusion Using Focused US Surgery Monitored by MRI and MRA  
*I J Rowland, Royal Marsden NHS Trust, Surrey*  
**1445** Model Based Registration of Contrast Enhanced Dynamic MR Breast Images  
*P M Hayton, Oxford University*  
**1455** T<sub>2</sub> map MRI of the Prostate with Histological Correlation: Preliminary Results  
*G P Liney, Hull Royal Infirmary*

**SCIENTIFIC SESSION Hall 1 1400 - 1600**  
**MUSCULOSKELETAL IMAGING 2 [pp. 19-20]**  
 Chairman: *A M Davies*  
**1400** MRI of Synovial Tumours and Tumour-like Lesions  
*Invited Review D A Ritchie, Royal Liverpool Hospital*  
**1430** Patient Outcome Following Normal Knee MRI  
*R Seymour, University Hospital of Wales, Cardiff*  
**1440** Does Knee MRI Improve the Management of Patients with Internal Knee Derangement?  
*N Raby, Western Infirmary NHS Trust, Glasgow*  
**1450** MRI in the Assessment of Patellar Tendonitis  
*J S Green, Leicester Royal Infirmary*  
**1500** MRI or Arthrography of the Shoulder: Which do Patients Prefer?  
*T K Blanchard, Addenbrooke's Hospital, Cambridge*  
**1510** MRI of the Shoulder: Is Fast STIR Worth it?  
*S J Wenham, Salford Royal Hospitals Trust*  
**1520** Avascular Necrosis of the Femoral Head: MRI for Prognosis in 14 Patients with 3 Year Follow-up  
*F J Gilbert, Aberdeen Royal Infirmary*



**MONDAY 19 MAY**

- 1530** Acetabular Malalignment into Retroversion: The Plain X-Ray Findings of a Newly-Determined Condition  
*J D Lucas, St Thomas', London*
- 1540** The "Penumbra Sign" on T<sub>1</sub> weighted MRI in Subacute Osteomyelitis: Frequency, Cause and Significance  
*A C Grey, Musgrave Park Hospital, Belfast*
- 1550** "Spotty Feet" in Children - A Normal MRI Variant?  
*C R Pal, Nuffield Orthopaedic Centre, Oxford*

**STATE OF THE ART SYMPOSIUM**  
*Hall 10b 1400 - 1500*  
**RADIATION PROTECTION - AN UPDATE**  
*[pp. 20-21]*

**Chairman:** *R H Corbett*

**1400** Update on Radiation Protection Issues - Negotiation of Proposed Council Directive on Medical Exposure  
*S Ebdon-Jackson, Department of Health, London*  
*Invited Review*

**1430** An Update on the Latest Radiation Protection Issues - Implementation of the Revised Basic Safety Standards Directive  
*M K Williams, Health and Safety Executive, London*  
*Invited Review*

**SCIENTIFIC SESSION *Hall 11a 1400 - 1540***  
**HEPATOBIILIARY IMAGING [pp. 21-22]**

- Chairman:** *A Adam*
- 1400** Non-vascular Interventional Radiology: Hepatobiliary Intervention  
*P R Mueller, Massachusetts General Hospital, USA*  
*Invited Review*
- 1430** Transarterial Chemoembolization for Primary Liver Cell Cancer  
*J Latimer, Freeman Hospital, Newcastle-upon-Tyne*
- 1440** Sonographic Signs Leading to Conversion of Laparoscopic Cholecystectomy to Open Cholecystectomy  
*J J I M van der Velden, AZR-Dijkzigt, Rotterdam, THE NETHERLANDS*
- 1450** Magnetic Resonance Cholangiography with a Local Coil: Technique, Results and Implications for Clinical Practice  
*J C Varghese, Beaumont Hospital, Dublin*
- 1500** A Prospective Evaluation of MRI of Common Bile Duct Stones  
*M L Wastie, University Hospital, Nottingham*
- 1510** The Role of Magnetic Resonance Cholangiopancreatography in the Study of Biliary Diseases  
*L V Vlachos, Areteion Hospital, Athens, GREECE*

- 1520** Superparamagnetic Iron Oxide Enhanced MRI in Hepatic Lesion Detection: A Sequence Comparison  
*J Ward, St James's University Hospital, Leeds*
- 1530** HASTE MR in Evaluating the Laparoscopic Biliary Patient  
*F Regan, Johns Hopkins Bayview Medical Center, Baltimore, USA*

**SCIENTIFIC SESSION**  
***Olympian Suite 1400 - 1520***  
***CHEST CT [pp. 23-24]***

- Chairman:** *D M Hansell*
- 1400** Detection of Small Airways Disease: A Comparison of Inspiratory and Expiratory Thin-Section CT  
*C S Ng, St George's Hospital, London*
- 1410** Air-Trapping in Sarcoidosis: Correlation with Lung Function  
*A D Tasker, The Churchill Hospital, Oxford*
- 1420** The Functional Significance of HRCT Abnormalities in Survivors of Adult Respiratory Distress Syndrome  
*S R Desai, Royal Brompton Hospital, London*
- 1430** High Resolution CT Evaluation of Bronchopulmonary Dysplasia in Long Term Survivors: Correlation with Pulmonary Function Testing  
*C M Owens, St Mary's Hospital, London*
- 1440** A CT Sign of Pulmonary Hypertension: The Ratio of Main Pulmonary Artery to Aortic Diameter  
*C S Ng, St George's Hospital, London*
- 1450** Clinical Indications of 3D Reconstructions in Chest Diseases  
*M Remy-Jardin, Hopital Albert Calmette, Lille, FRANCE*  
*Invited Review*

**STATE OF THE ART SYMPOSIUM**  
***Hall 9 1500 - 1700***  
***CHILD PROTECTION & RADIOGRAPHY [p. 24]***

**Chairman:** *A Tomlinson*

**1500** Child Protection in Radiography: Examples from Professional Practice  
*P Hogg, The University of Salford, Manchester*  
*Invited Review*

**1530** Child Abuse and Child Protection: Current Issues  
*J Sudbery, The University of Salford, Manchester*  
*Invited Review*

**1600** Child Protection: Education and Training for Radiographers  
*C Eaton, The University of Salford, Manchester*  
*Invited Review*

STATE OF THE ART SYMPOSIUM	
<i>Hall 10b 1515 - 1635</i>	
<b>RADIATION PROTECTION - COMMUNICATION</b>	
[pp. 24-25]	
Chairman:	<i>K Faulkner</i>
<b>1515</b>	Communicating Radiation Risk to the Patient
<i>Invited Review</i>	<i>R H Corbett, Hairmyres Hospital, Glasgow</i>
<b>1535</b>	Communicating the Risks to the Patient's Relatives in Nuclear Medicine
<i>Invited Review</i>	<i>L K Harding, City Hospital NHS Trust, Birmingham</i>
<b>1555</b>	The Genetic Revolution - Consequences on Risk and its Perception
<i>Invited Review</i>	<i>C Sharp, National Radiological Protection Board, Oxon</i>
<b>1615</b>	Discussion with <i>Dr D Teunen, European Union, Brussels</i>

**SCIENTIFIC SESSION *Hall 11b 1515 - 1615***  
*infoRAD™ 2 [p. 25]*

Chairman:	<i>E Berry</i>
<b>1515</b>	IT in Radiological and Radiographic Education
<i>Invited Review</i>	<i>M P Tatlow, South Bank University, London</i>
<b>1535</b>	Using the World Wide Web to Teach Radiology: How and Why
<i>Invited Review</i>	<i>A C Downie, Guy's &amp; St Thomas' Hospital, London</i>
<b>1555</b>	The Impact of the Interactive Computer Assisted Learning Package CALRAD
	<i>R A Lerski, Ninewells Hospital &amp; Medical School, Dundee</i>
<b>1605</b>	Discussion

**SCIENTIFIC SESSION *Hall 10a 1545 - 1655***  
**RADIOTHERAPY & ONCOLOGY 3 [pp. 25-27]**

Chairman:	<i>P J D K Dawes</i>
<b>1545</b>	The Matching of Linear Accelerators to Facilitate Patient Transfer for Gap Management in Radiotherapy Departments
	<i>H Porter, Western Infirmary, Glasgow</i>
<b>1555</b>	Computers vs Hand-Written Data in Radiotherapy Treatment
	<i>S McWilliam, Freedom Fields Hospital, Plymouth</i>
<b>1605</b>	Cost Efficiency of Radiation Therapy
	<i>R Allison, Royal Brisbane Hospital, AUSTRALIA</i>
<b>1615</b>	Morbidity and Patient Satisfaction Following Radical Retropubic Prostatectomy
	<i>G L Smith, Charing Cross Hospital, London</i>
<b>1625</b>	Investigation of Automated TLD Techniques for Tumour Dose Estimation in External Beam Radiotherapy
	<i>H M Ferguson, Newcastle General Hospital, Newcastle-upon-Tyne</i>

- 1635** An Assessment of Image Registration in the Treatment Planning of Tumours of the Brain  
*A Davison, Leicester Royal Infirmary*
- 1645** Measurements of Scattered Doses to the Testes in Abdominal Radiotherapy  
*G J Budgell, Christie Hospital NHS Trust, Manchester*

**SCIENTIFIC SESSION *Hall 11a 1550 - 1700***  
**STENTS & THE GASTROINTESTINAL TRACT**  
[pp. 27-28]

Chairman:	<i>A Nicholson</i>
<b>1550</b>	The Use of Wallstent Endoprostheses for the Palliation of Malignant Tracheobronchial Obstruction and Fistulae
	<i>M Cowling, St Mary's Hospital, London</i>
<b>1600</b>	Metallic Stents for the Palliation of Malignant Dysphagia: Experience with 130 Patients
	<i>E Denton, Guy's and St Thomas' Hospital, London</i>
<b>1610</b>	Radiological Placement of Self-Expanding Metal Oesophageal Endoprostheses for Palliation of Carcinoma - Our First 50
	<i>H G Thomas, Musgrove Park, Taunton</i>
<b>1620</b>	Expandable Metal Stents in Obstructing Colorectal Carcinoma
	<i>F Wallis, Aberdeen Royal Infirmary</i>
<b>1630</b>	Interventional Radiology in Oesophageal Strictures and Fistulae
<i>Invited Review</i>	<i>A Adam, UMDS Guy's and St Thomas's Hospital, London</i>

**WORK IN PROGRESS *Hall 1 1600 - 1700***  
**BONES & MUSCULOSKELETAL [pp. 117-118]**

Chairman:	<i>L A Williams</i>
<b>1600</b>	Indirect MR Arthrography of the Shoulder
	<i>W Jan, Royal Infirmary of Edinburgh</i>
<b>1610</b>	Neural Network Diagnosis of Colles Fractures
	<i>D J Manning, University College of St Martin, Lancashire</i>
<b>1620</b>	To Evaluate the Role of Ultrasound and MRI in Suspected Morton's Neuroma
	<i>G K L Tai, Derriford Hospital, Plymouth</i>
<b>1630</b>	Ultrasound Bone Analysis in Children with Anorexia Nervosa
	<i>S J Mather, Great Ormond Street Hospital for Children NHS Trust, London</i>
<b>1640</b>	The Measurement of Fine Structures by CT
	<i>D L Newman, Kuwait University, KUWAIT</i>
<b>1650</b>	The Application of Trabecular Bone Density Values in the Detection of Osteoporosis Within the Community
	<i>G A Glover, University of Derby</i>

**MONDAY 19 MAY**

**CATEGORICAL COURSE**  
*Olympian Suite 1615 - 1700*  
**VASCULAR INTERVENTIONAL RADIOLOGY 2**  
[p. 28]  
Chairman: *J F Reidy*  
**1615** Aortic and Iliac Stent Grafts  
*Invited Review J F Dyet, Hull Royal Infirmary*

**CATEGORICAL COURSE Hall 11b 1625 - 1715**  
**MUSCULOSKELETAL ULTRASOUND 2** [p. 28]  
Chairman: *I Beggs*  
**1625** Ultrasound of the Knee  
*Invited Review S G Davies, East Glamorgan Hospital, Pontypridd*  
**1650** Ultrasound of Foot and Ankle  
*Invited Review W W Gibbon, The General Infirmary at Leeds*

**SCIENTIFIC SESSION Hall 10b 1645 - 1715**  
**RADIATION PROTECTION - DOSE** [pp. 28-29]  
Chairman: *D Sutton*  
**1645** Effective Dose, Conversion Factors and Risk During Common Paediatric Examinations  
*D A Broadhead, Newcastle General Hospital*  
**1655** Dose-area Product in the Assessment of Effectiveness of Staff Protection in Interventional Radiology  
*J R Williams, Western General Hospital, Edinburgh*  
**1705** Film Processing at General Dental Practitioner Clinics: How Does it Affect Patient Dose and Film Contrast?  
*D G Sutton, Ninewells Hospital, Dundee*

**ROYAL COLLEGE OF RADIOLOGISTS**  
*Hall 1 1715 - 1800*  
**GEORGE SIMON MEMORIAL LECTURE** [p. 29]  
**1715** CT of the Lungs: Above and Beyond the Diagnosis  
*D M Hansell, Royal Brompton Hospital, London*

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**NOTES**

**TUESDAY 20 MAY 1997**

**REFRESHER COURSE Hall 9 0800 - 0850**  
**BREAST BIOPSY [p. 31]**

Chairman: *H B Nunnerley*  
**0800** Image-guided Breast Biopsy  
*Invited Review* *A R M Wilson, Nottingham City Hospital*  
**0825** Fine Needle Aspiration and Core Biopsy: A Review  
*Invited Review* *P D Britton, Addenbrookes's NHS Trust, Cambridge*

**CATEGORICAL COURSE Hall 10a 0800 - 0845**  
**VASCULAR INTERVENTIONAL RADIOLOGY 3**  
*[p. 31]*

Chairman: *T Cleveland*  
**0800** Peripheral Angioplasty and Thrombolysis  
*Invited Review* *M R E Dean, Royal Shrewsbury Hospital*

**REFRESHER COURSE Hall 10b 0800 - 0845**  
**NUCLEAR MEDICINE IN ONCOLOGY [p. 31]**

**0800** The Role of Positron Emission Tomography (PET) in Cancer Management  
*Invited Review* *M N Maisey, UMDS, Guy's & St Thomas's Hospital, London*

**REFRESHER COURSE Hall 11a 0800 - 0845**  
**PERCUTANEOUS GASTROSTOMY [p. 32]**

Chairman: *A Adam*  
**0800** Percutaneous Gastrostomy and Jejunostomy  
*Invited Review* *P R Mueller, Massachusetts General Hospital, Boston, USA*

**REFRESHER COURSE Hall 11b 0800 - 0845**  
**INVESTIGATIONS OF NEONATAL VOMITING**  
*[p. 32]*

Chairman: *S Chapman*  
**0800** Investigation of Neonatal Vomiting  
*Invited Review* *A Sprigg, Sheffield Children's Hospital*

**CATEGORICAL COURSE**  
**Olympian Suite 0800 - 0850**  
**MUSCULOSKELETAL ULTRASOUND 3 [p. 32]**

Chairman: *B P M Wilson*  
**0800** US of the Infant Hip  
*Invited Review* *R J Arthur, Leeds General Infirmary*  
**0825** Paediatric Skeletal US  
*Invited Review* *G Long, Sheffield Children's Hospital*

**SCIENTIFIC SESSION Hall 1 0850 - 1000**  
**SPIRAL CT [P. 33]**

Chairman: *A Dixon*  
**0850** CT Angiography  
*Invited Review* *S C Rankin, Guy's & St Thomas's Hospital, London*  
**0920** Spiral CT Measurement of Blood Flow and Perfusion Changes After Liver Tumour Ablation  
*A D B Waldman, Middlesex Hospital, London*  
**0930** Biliary Imaging by Spiral CT Cholangiography (CTC): A Non-invasive Alternative When ERCP Fails  
*Z Sajjad, North Staffordshire Hospital, Stoke-on-Trent*  
**0940** Peripheral Cholangiocarcinoma: Three Phase Helical CT Appearances  
*J H Lim, Samsung Medical Centre, Seoul, KOREA*  
**0950** Dual-Phase Helical CT in the Evaluation of Hepatic and Extrahepatic Tumours  
*H Schwarzenberg, University of Kiel GERMANY*

**STATE OF THE ART SYMPOSIUM**  
**Hall 9 0900 - 1020**

**ENVIRONMENTAL RADIATION [pp. 33-34]**

Chairman: *W Morgan*  
**0900** Studies of Radiation Dose to NHS Staff from Radon: The Benefits of Air Conditioning and the Effectiveness of Remedial Work  
*A R Denman, Northampton General Hospital NHS Trust*  
**0920** Personal Dosimetry Measurements of the Radon-Related Dose to the Basal Layer of the Skin  
*Invited Paper* *J P Eatough, Royal Berkshire Hospital*  
**0945** Childhood Thyroid Cancer after Chernobyl  
*Invited Review* *M Zymovets, Institute for Endocrinology and Metabolism, UKRAINE*  
**1010** Cellular Immunity of Individuals Accidentally Exposed in the 1986 Radiological Accident in Chernobyl  
*E V Bayeva, Cherkassy State University, UKRAINE*

**SCIENTIFIC SESSION Hall 10a 0900 - 1000**  
**infoRAD™ 3 [pp. 34-35]**

Chairman: *P Jackson*  
**0900** IT Issues in the Calman Recommendations on the Reorganization of Cancer Services  
*Invited Review* *J Milan, The Royal Marsden NHS Trust, Surrey*  
**0940** Clinical Oncology MAISY: An Integrated, Computerized Audit and Administrative System  
*W V Steele, Derbyshire Royal Infirmary, Derby*

**0950** Developing Your Own Radiological Management System  
*H K Chow, Kings Mill Centre, Sutton-in-Ashfield*

**STATE OF THE ART SYMPOSIUM**  
**Hall 10b 0900 - 1045**  
**NUCLEAR MEDICINE / BREAST IMAGING [p. 35]**

**Chairman:** *R MacKenzie*

**0900** Unsealed Source Therapy for Solid Tumours  
*Invited Review V R McCready, Royal Marsden NHS Trust, Surrey*

**0930** Nuclear Medicine in the Detection of Primary and Secondary Carcinomas of the Breast  
*Invited Review P J Ell, University College & Middlesex School of Medicine, London*

**0950** Detection and Diagnosis of Small Breast Cancers  
*Invited Review M J Michell, King's Healthcare NHS Trust, London*

**1010** US in Breast Imaging  
*Invited Review E C Moskovic, Royal Marsden NHS Trust, Surrey*

**1030** Discussion

**WORK IN PROGRESS Hall 11a 0900 - 0930**  
**BREAST [p. 119]**

**Chairman:** *J R Young*

**0900** Interval Cancers: An Inductive Approach  
*P Whatmough, University of Derby*

**0910** The Effect of Hormone Replacement Therapy on the Sensitivity of Mammographic Screening  
*J C Litherland, Glasgow Royal Infirmary*

**0930** Dynamic Gadolinium Enhanced MRI of the Axilla in Patients with Breast Cancer: Comparison with Pathology of Excised Nodes  
*A D Murray, Aberdeen Royal Infirmary*

**INVITED REVIEW LECTURE**  
**Hall 11b 0900 - 1000**  
**ASSESSMENT PROCEDURES FOR RADIOLOGISTS**  

[p. 36]

**Chairman:** *P L Allan*

**0900** General Medical Council - Assessment Procedures for Poor Performance of Radiologists  
*Invited Review B Ayers, St Thomas' Hospital, London*

**0945** Discussion

**STATE OF THE ART SYMPOSIUM**  
**Olympian Suite 0900 - 1100**  
**MRI IN PAEDIATRICS [p. 36]**

**Chairman:** *D W Pilling*

**0900** The Role of MRI in Children with Epilepsy  
*Invited Review L Abernethy, Alder Hey Children's Hospital, Liverpool*

**0925** Sedation or Anaesthesia for Paediatric MRI  
*Invited Review S Chapman, Birmingham Children's Hospital*

**0950** MRI of the Chest, Abdomen and Pelvis in Children  
*Invited Review K McHugh, John Radcliffe Hospital, Oxford*

**1015** MRI in Paediatrics  
*Invited Review G H Sebag, Hôpital Robert Debre, Paris, FRANCE*

**1040** Discussion

**SCIENTIFIC SESSION Hall 11a 0940 - 1020**  
**MRI OF THE LOWER GASTROINTESTINAL TRACT**  

[p. 37]

**Chairman:** *C Bartram*

**0940** MR with a Dedicated Intra-rectal Coil in the Staging of Rectal Tumours  
*J M Curtis, Royal Liverpool University Hospital*

**0950** A Comparison of Endoanal MRI with Surgical Findings in Perianal Sepsis  
*N M deSouza, Hammersmith Hospital, London*

**1000** MRI of Perianal Fistulae: STIR or SPIR?  
*S Halligan, St Mark's Hospital, Middlesex*

**1010** Criteria For Local Tumour Staging in Rectal Cancer Using High Resolution Fast Spin Echo (FSE) MRI: Preliminary Results  
*G Brown, University Hospital of Wales, Cardiff*

**SCIENTIFIC SESSION Hall 1 1015 - 1145**  
**BREAST IMAGING [pp. 37-39]**

**Chairman:** *H Dobson*

**1015** NHS Breast Screening Programme  
*Invited Review J Patnick, Breast Screening Programme, Sheffield*

**1045** Do Disappearing Calcifications Matter?  
*H R Seymour, St George's Hospital, London*

**1055** Does Incident-Round Screening Work? A Comparison of Prognostic Factors of Prevalent and Incident Carcinomas  
*A J Evans, Nottingham City Hospital*

**1105** How Reliable is Modern Breast Imaging In Predicting Histological Diagnosis in the Symptomatic Population?  
*H A Moss, Addenbrooke's Hospital, Cambridge*

**1115** Radiological Features of Breast Cancer in Young Women  
*C I Flowers, Breast Test Wales, Swansea*

**11.25** US Findings in Pure Lobular Carcinoma: Comparison with Matched Cases of Ductal Carcinoma of the Breast  
*D A Cunningham, St Mary's Hospital, London*

- 1135**      Interventional Methods in Breast Diagnostics: Ultrasonic Guided High-Speed Core-Cut Biopsy  
*R Schulz-Wendland, Women's Hospital University of Erlangen-Nuremberg, GERMANY*

**SCIENTIFIC SESSION Hall 10a 1015 - 1135**  
**RADIOTHERAPY & ONCOLOGY 4** [pp. 39-40]

Chairman: *A Beddoe*

- 1015**      Missing Tissue Compensation  
*Invited Review*  
*A M Bidmead, Royal Marsden NHS Trust, London*
- 1045**      MR Imaging of the Brain: Applications in Radiotherapy Treatment Planning  
*P Gibbs, Hull Royal Infirmary*
- 1055**      Accelerator Output Fluctuation: The Effect on Megavoltage CT and Portal Image Quality  
*M Partridge, Institute of Cancer Research, Surrey*
- 1105**      The Role of the Radiographer in Electronic Portal Imaging  
*V R Thompson, The Royal Marsden NHS Trust, London*
- 1115**      What to do with Living, Breathing, Moving Patients? The Importance of Patient Positioning in Radiotherapy  
*R L Harris, Freedom Fields Hospital, Plymouth*
- 1125**      Prostate Cancer: Endorectal Coil MRI Before and After External Beam Radiation  
*R Mayer, University Clinic of Radiology, Graz, AUSTRIA*

**SCIENTIFIC SESSION Hall 11a 1030 - 1200**  
**GASTROINTESTINAL TRACT** [pp. 40-41]

Chairman: *D Martin*

- 1030**      An Update on Imaging of the Small Intestine  
*Invited Review*  
*D J Nolan, John Radcliffe Hospital, Oxford*
- 1100**      Staging Oesophageal Cancer: Initial Experience with MH-908 Blind Endoscopic US Probe  
*S A Roberts, University Hospital of Wales, Cardiff*
- 1110**      <sup>18</sup>F-FDG PET Scanning in Gastroesophageal Adenocarcinoma; Evaluation and Quantitation  
*D McAteer, Aberdeen Royal Infirmary*
- 1120**      Comparison of FDG PET and CT in the Staging of Oesophageal Carcinoma  
*H M Taylor, Guy's and St Thomas' Hospital, London*
- 1130**      The Non-ionic Water-Soluble Contrast Small Bowel Meal: Clinical Relevance and Surgical Correlation  
*F Macleod, City Hospital NHS Trust, Nottingham*
- 1140**      Small Bowel Volvulus: Value of CT in the Pre-operative Diagnosis  
*M Z Zalcman, Hôpital Erasme, Brussels, BELGIUM*

- 1150**      Contrast Herniography, A Useful Investigation for Groin Pain?  
*A M B Bowker, Scarborough Hospital*

**WORK IN PROGRESS Hall 11b 1010 - 1110**  
**VASCULAR & INTERVENTIONAL RADIOLOGY**  
[pp. 119 - 120]

Chairman: *J E Jackson*

- 1010**      Evaluation of In-stent Restenosis of Peripheral Arterial Stents and Stent Grafts: Intravascular Ultrasound vs Angiography  
*H Schwarzenberg, Univeristy of Kiel, GERMANY*
- 1020**      Determination of Neointima Proliferation and Plaque Morphology in Covered vs Uncovered Nitinol Stents with Intravascular Ultrasound  
*H Schwarzenberg, Univeristy of Kiel, GERMANY*
- 10.30**      Treating Claudication in Nine Words  
*E P L Turton, St James's Hospital, Leeds*
- 1040**      CT Angiography of Aorto-Iliac Occlusive Disease  
*S Patel, North Staffordshire Hospital Centre, Stoke-on-Trent*
- 1050**      A Comparison of CT Angiography vs Other Modalities in Carotid Artery Imaging  
*M Vaughan, North Staffordshire Hospital Centre, Stoke-on-Trent*
- 1100**      Duplex Assessment of Venous Surgery by the Junior Surgeon  
*S McKenzie, St James's Hospital, Leeds*

**SCIENTIFIC SESSION Hall 9 1035 - 1200**  
**RADIOGRAPHY - DIAGNOSTIC IMAGING & RADIOTHERAPY** [pp. 42-43]

Chairman: *J Shrimpton*

- 1035**      Radiography Reporting in a Community Hospital  
*J Webster, South Tees Acute Hospitals NHS Trust*
- 1045**      The Design and Testing of an Instrument to Measure the Effectiveness of Continuing Professional Development  
*S Henwood, City University, London*
- 1055**      Radiographer Led Treatment Review: A Work Based Education Programme for Professional Development  
*H M Colyer, Canterbury Christ Church College*
- 1105**      Is Sufficient Exposure Information Available to Clinical Users of US?  
*M T Stanton, University College Dublin, IRELAND*
- 1115**      Survey of Current Practice in Special Care Baby Units and its Relationship to Patient Dose  
*A S Lowe, University of Hertfordshire, Hatfield*

**TUESDAY 20 MAY**

- 1125** MRI of the Pelvic Floor and Perineum  
*S M Todd, Christie Hospital NHS Trust, Manchester*
- 1135** The Royal London Hospital Experience of the Docklands Bombing: Radiographic Experience of a Major Incident  
*M Viner, The Royal London Hospital*

**SCIENTIFIC SESSION Hall 10b 1100 - 1200**  
**MR ANGIOGRAPHY [pp. 43-44]**

- Chairman: *P Murphy*
- 1100** Comparison of MRI Varicography of the Calf Using TurboSTIR Imaging with Conventional Varicography  
*D F Sallomi, Guy's Hospital, London*
- 1110** A Comparison of DSA and MRA in the Assessment of Peripheral Vascular Disease  
*D J Pressdee, Royal United Hospital, Bath*
- 1120** MR Angiography in the Diabetic Foot with Gadolinium Enhancement; Comparison with Angiography and Doppler Ultrasound  
*D I Sarma, King's College Hospital, London*
- 1130** Implementation of a Rapid Acquisition, Ultrashort TR Dynamic Gadolinium Enhanced 3D Technique For Body MR Angiography  
*C N Ludman, University Hospital, Queen's Medical Centre, Nottingham*
- 1140** Sequential Projection Angiography Using Contrast Enhancement (SPACE): First Clinical Experiences With a New MR Angiography Technique  
*B H Schneider, Freiburg University, GERMANY*
- 1150** Inflammatory Abdominal Aortic Aneurysms: Appearances with Gadolinium Enhancement and the Role of Follow-Up Imaging  
*F Wallis, Aberdeen Royal Infirmary*

**SCIENTIFIC SESSION Hall 11b 1120 - 1150**  
**MANAGEMENT & PATIENT CARE [pp. 44-45]**

- Chairman: *J P Owen*
- 1120** Setting Standards for Plain Film Reporting: Influence of Observer Variation  
*P J Robinson, St James's University Hospital, Leeds*
- 1130** Informed Consent: Who Should Obtain It?  
*T Sikdar, Charing Cross Hospital, London*
- 1140** Oral Sedation in Magnetic Resonance Imaging  
*L J King, St Bartholomew's Hospital, London*

**WORK IN PROGRESS Olympian Suite 1110 - 1200**  
**GYNAECOLOGY & UROLOGY [pp. 120-121]**

- Chairman: *J McHugo*
- 1110** Serum Prostate Specific Antigen: Predictor of MR Staging in Prostate Carcinoma  
*Q Y Gong, University of Liverpool*
- 1120** Radiological Investigation of Renal Colic Revisited: Helical CT Without Contrast Compared with Intravenous Pyelography (IVP)  
*S Sourtzis, CHU Brugmann, Brussels, BELGIUM*
- 1130** An Assessment of the Diagnostic Yield of 25 G Fine Needle Aspiration in Patients with Suspected Malignant Disease  
*R J Miller, Princess Margaret Hospital, Swindon*
- 1140** MR Dynamic Enhancement Pattern of Cervical Carcinoma: Potential Indicator of Tumour Regression Rate During Radiotherapy  
*Q Y Gong, University of Liverpool*
- 1150** Comparative Analyses of Computed Tomography and Ultrasound in the Diagnosis of Retroperitoneal Metastases of Testicular Tumours  
*M N Kekelidze, Research Institute of Radiology and Interventional Diagnostics, Tbilisi, REPUBLIC OF GEORGIA*

**BRITISH INSTITUTE OF RADIOLOGY**

*Hall 1 1200 - 1245*

**SILVANUS THOMPSON MEMORIAL LECTURE**

*[p. 45]*

- 1200** Heterogeneity of Human Response to Ionizing Radiation  
*D Scott, Paterson Institute for Cancer Research, Manchester*

**ROYAL COLLEGE OF RADIOLOGISTS**

*Hall 1 1300 - 1345*

**SIR PETER KERLEY LECTURE [p. 45]**

- 1300** Spiral CT of Pulmonary Vessels  
*M Remy-Jardin, Hôpital Albert Calmette, FRANCE*

**STATE OF THE ART SYMPOSIUM**

*Hall 11b 1350 - 1600*

**MANAGEMENT & PROCUREMENT [pp. 45-46]**

- Chairman: *S Weeden*
- 1350** Mysteries of Management  
*Invited Review J Roylance, United Bristol Healthcare Trust*
- 1420** Hospital Purchasing  
*Invited Review J Pope, Central Middlesex Hospital, London*
- 1450** Managed Services: MRI and CT  
*Invited Review D A Haworth, Alliance Medical Ltd, Oxon*

- 1520** Technology - Bringing Through PFI  
*Invited Review* G R Lewis, Siemens plc, Bracknell
- 1535** What Price Purchasing in Radiology?  
*Invited Review* B G White, Siemens plc, Bracknell
- 1550** Discussion

**SPECIAL FOCUS SESSION Hall 1 1400 - 1530**  
FILMVIEWING

Chairman: F J Gilbert

The film viewing session displays the diagnostic talents of a panel of four recognized expert radiologists. Each panellist is presented with two unknown cases in their areas of special expertise which will include musculoskeletal and chest radiology, and gastrointestinal and paediatric radiology. The cases are challenging and the experts' presentations will emphasize their approaches to problem solving and methods of arrival at their considered opinions. This session aims to be of practical educational value. The images will be displayed during the scientific meeting. Following the film viewing session the diagnosis will be displayed with the images.

Professor F J Gilbert, Aberdeen  
Dr I Watt, Bristol  
Professor R Green, Glasgow  
Professor P R Mueller, Boston USA  
Professor H Carty, Liverpool

**SCIENTIFIC SESSION Hall 10a 1400 - 1510**  
infoRAD™ 4 [pp. 46-47]

Chairman: E C Beckmann

- 1400** IT Standards in Clinical Practice  
*Invited Review* D J Harvey, N J G Brown, Singleton Hospital, Swansea
- 1440** Practical DICOM Image Transfer from a Range of CT Scanners  
G A Howard, St George's Hospital, London
- 1450** A Computerized Reporting System for Ultrasound Quality Assurance Measurement  
S Perring, Poole Hospital, Dorset
- 1500** Discussion

**SCIENTIFIC SESSION Hall 10b 1400 - 1510**  
NUCLEAR MEDICINE [pp. 47-48]

Chairman: D Cunningham

- 1400** The Contribution of Brain Receptor Imaging to Understanding Schizophrenia  
*Invited Review* L S Pilowsky, Institute of Psychiatry, London
- 1430** <sup>99</sup>Tc<sup>m</sup>-Nanocolloid Scintigraphy for Assessing Osteomyelitis in Diabetic Neuropathic Feet  
D Remedios, Northwick Park House, Middlesex
- 1440** Positron Emission Tomographic Imaging of Extracranial Head and Neck Tumours Using a High Density Avalanche Chamber (HIDAC) Camera  
C D Collins, Christie Hospital NHS Trust, Manchester

- 1450** Comparison of Post-Acute Findings of SPET and MRI in Traumatic Brain Injury  
S Vinjamuri, Royal Liverpool University Hospital

- 1500** Preliminary Assessment of a New Gamma Camera Based PET System  
*Work in Progress* P J Julyan, Queen Elizabeth Hospital, Birmingham

**SCIENTIFIC SESSION Hall 11a 1400 - 1530**  
GENITOURINARYTRACTIMAGING [pp. 48-49]

Chairman: D Rickards

- 1400** The Role of Doppler in Renal Disease  
*Invited Review* P A Dubbins, Derriford Hospital, Plymouth
- 1430** Diffuse Non-metastatic Enlargement of the Adrenal Glands on CT: Correlation with Endocrine Status  
S A Sohaib, St Bartholomew's Hospital, London
- 1440** Quantitative CT Evaluation of Adrenal Gland Masses: A Step Forward in the Differentiation Between Adenomas and Non-adenomas?  
P Reittner, Karl Franzens University Graz, AUSTRIA
- 1450** Characterization of Adrenal Masses by Contrast Enhanced CT: Value of the 15 Min Delayed Scan  
G W Boland, Massachusetts General Hospital, Boston, USA
- 1500** Use of PSA Assay and Gleason Score for Predicting the Stage of Newly Diagnosed Prostate Cancer?  
J A Spencer, St James's University Hospital, Leeds
- 1510** Characterization of Focal Testicular Lesions Using Quantitative Analysis By Dynamic MRI  
S Phillips, University Hospital of Wales, Cardiff
- 1520** Assessment of Irradiated Bladder Carcinoma with Dynamic Contrast Enhanced MRI  
M J Dobson, University of Manchester

**SCIENTIFIC SESSION**  
**Olympian Suite 1400 - 1520**  
PAEDIATRIC IMAGING [pp. 49-50]

Chairman: K Shah

- 1400** MRI of the Paediatric Spine  
*Invited Review* G H Sebag, Hôpital Robert Debre, Paris, FRANCE
- 1430** Administration of Contrast Media to Children: Current Practice in the UK  
R Seymour, University Hospital of Wales, Cardiff
- 1440** Assessment of Dysphagia by the Modified Barium Swallow in Children. Is the Extra Effort Worthwhile?  
R E R Wright, Ulster Hospital, Belfast



**TUESDAY 20 MAY**

- 1450** US Assessment of Colonic Wall Thickening in Cystic Fibrosis  
*J T M Atchley, Southampton General, Hampshire*
- 1500** The Role of Cranial CT in the Management of Acute Febrile Encephalopathy  
*R Joarder, Imperial College School of Medicine at St Mary's Hospital, London*
- 1510** Neonatal MRI on Dedicated 1.0 T Scanner  
*A H Herlihy, Hammersmith Hospital, London*

**COLLEGE OF RADIOGRAPHERS**  
*Hall 9 1415 - 1515*  
*STUDENT CONFERENCE [p. 50]*

Chairman: *C Beardmore*

**1415** Presidential Address  
*J Henderson*  
*President, College of Radiographers*

**1430** War Surgery With The International Committee of the Red Cross  
*K B Queen, Nevill Hall Hospital, Gwent*

**SCIENTIFIC SESSION Hall 10b 1515 - 1605**  
*MRI OF THE BREAST [pp. 50-51]*

- Chairman: *L W Turnbull*
- 1515** Dynamic MR Guidance of Laser Therapy to Breast Cancer  
*M A Hall-Craggs, The Middlesex Hospital, London*
- 1525** Prediction of Axillary Lymph Node Status in Breast Cancer by Use of Dynamic Contrast Enhanced MRI  
*S Mussurakis, Hull Royal Infirmary*
- 1535** MRI of Invasive Lobular Carcinoma of the Breast  
*F G Balen, The Middlesex Hospital, London*
- 1545** Surface Coil MRI of Brachial Plexopathy in Breast Cancer  
*A Qayyum, Royal Marsden NHS Trust, Surrey*
- 1555** The Role of MR-Mammography in the Diagnosis of Multicentricity in Breast Cancer  
*S Krämer, Women's Hospital University of Erlangen-Nuremberg, GERMANY*

**COLLEGE OF RADIOGRAPHERS**  
*Hall 9 1530 - 1700*  
*STUDENTS' SCIENTIFIC SESSION [p. 51]*

Chairmen: *J Shrimpton/J Fisher*

**1530** Developing a Teaching and Learning Strategy for Student Radiographers in Obstetric Ultrasound  
*J Hucker, University of Salford*

- 1540** Effective Lifting and Handling Procedures for Radiographers in Clinical Practice  
*S R Goodwin, University of Derby*
- 1550** Reject Analysis of Radiographs, Its Use and Contribution Towards a Portfolio of Continuing Professional Development  
*J Cook, Canterbury Christ Church College, Canterbury*
- 1600** A Comparison of Patient Dosimetry in Radiography of the Lumbar Spine  
*I J Griffiths, Christ Church College, Canterbury*
- 1610** The Effects of Altering the Position of Lead-Rubber Gonad Protection During PA Chest Radiography  
*D B Roberts, Canterbury Christ Church College, Canterbury*
- 1620** Contrast Examinations of the Urinary Tract: Their Role and Value in the Modern Imaging Department  
*A M Greaves, Canterbury Christ Church College, Canterbury*
- 1630** After the Introduction of CT for Pelvimetry Should We Now Consider Further Dose Reduction  
*K M Mellor, Royal Devon & Exeter Hospital, Exeter*
- 1640** Open Forum

- STATE OF THE ART SYMPOSIUM**  
*Olympian Suite 1530 - 1700*  
*CONTROVERSIES IN FUNCTIONAL MRIMAGING*  
*[pp. 51-52]*
- Chairman: *P Goddard*
- 1530** Functional MRI Provides Real Physiological Insight  
*Invited Review*  
*D G Gadian, University College London*
- 1545** Functional MRI as Presented is Generally Much Contaminated by Artefact  
*Invited Review*  
*I R Young, Hammersmith Hospital, London*
- 1600** Discussion
- 1615** Image Guided Therapy Through Interventional MRI: Will it be Economic and Effective?  
*Invited Review*  
*N M deSouza, Hammersmith Hospital, London*
- 1630** Frameless Stereotaxy Offers a Better Solution than In-Machine Approaches - The Case for Frameless Stereotaxy  
*D R Sandeman, Frenchay Hospital, Bristol*
- 1645** Discussion

**SCIENTIFIC SESSION Hall 11a 1540 - 1700**  
**GENITOURINARYTRACTINTERVENTIONAL**  
**TECHNIQUES [pp. 52-53]**

- Chairman: *P A Dubbins*
- 1540** Permanent Metal Stents in the Treatment of Ureteric Strictures  
*G Rottenberg, The Middlesex Hospital, London*
- 1550** Flexible Cystoscopy Combined with Digital Fluoroscopy for Outpatient Ureteropyelography and Retrograde Ureteric Stent Placement  
*N C Cowan, The Churchill Hospital, Oxford*
- 1600** Are Radiological Parameters Associated with Successful Antegrade Ureteric Stent Placement in Malignant Ureteric Obstruction?  
*T R Goodman, John Radcliffe Hospital, Oxford*
- 1610** An Audit of an Ambulatory Outpatient Transrectal US Guided Prostate Biopsy Service: Cost Savings and Relative Diagnostic Yield  
*A K Dheer, University College Hospital, Galway, IRELAND*
- 1620** Painful Varicoceles Managed by Embolization of the Spermatic Vein  
*P A Spencer, Rotherham General Hospital Trust*

**1630** Renal Masses: Imaging Armamentarium  
*Invited Review* 1997  
*H Hricak, University of California San Francisco, USA*

**SPECIAL FOCUS SESSION Hall 1 1545 - 1705**  
**DIGITALIMAGING- AN HISTORICAL OVERVIEW**  
**[pp. 53-54]**

- Chairman: *I Isherwood*
- 1545** Electronic Computing 1940 - 1965  
*Invited Review* *M Campbell-Kelly, Warwick University, Coventry*
- 1600** Computing in Medicine, especially Radiology from 1965  
*Invited Review* *R E Bentley, formerly Institute of Cancer Research, Surrey*
- 1615** The Introduction of Computing into Diagnostic Imaging  
*Invited Review* *G R Higson, MTC-BRI International Ltd, Staines*
- 1630** The Digital Hospital  
*Invited Review* *D J Allison, Hammersmith Hospital, London*
- 1645** Discussion

**CATEGORIGAL COURSE Hall 10a 1600 - 1645**  
**VASCULARINTERVENTIONALRADIOLOGY4**  
**[p. 54]**

- 1600** Vascular Interventional Radiology of the Liver  
*Invited Review* *S P Olliff, Queen Elizabeth Hospital, Birmingham*

**REFRESHER COURSE Hall 11b 1610 - 1700**  
**MANAGEMENT [pp. 54-55]**

- Chairman: *D Kay*
- 1610** Re-engineering Ones Own Department  
*Invited Review* *P Davies, City Hospital NHS Trust, Nottingham*
- 1635** Process Re-engineering at the Leicester Royal Infirmary NHS Trust  
*Invited Review* *J Penny, Leicester Royal Infirmary NHS Trust*

**REFRESHER COURSE Hall 10b 1615 - 1705**  
**IMAGING OF THE PHARYNX & OESOPHAGUS**  
**[p. 55]**

- Chairman: *D F Martin*
- 1615** Contrast Evaluation of Dysphagia  
*Invited Review* *D F Martin, Withington Hospital, Manchester*
- 1640** New Methods of Oesophageal Imaging  
*Invited Review* *C L Kay, Medical University of South Carolina, USA*

**INSTITUTE OF PHYSICS & ENGINEERING IN**  
**MEDICINE**

- Hall 1 1715 - 1800*
- DOUGLAS LEA MEMORIAL LECTURE [p. 55]**
- 1715** Radiation, Hypoxia and Genetic Stimulation: Implications for Future Therapies  
*G E Adams, Gray Laboratory Cancer Research Trust, Middlesex*

## WEDNESDAY 21 MAY 1997

### BRITISH INSTITUTE OF RADIOLOGY Hall 9 0800 - 0845 ANNUAL GENERAL MEETING & AWARDS CEREMONY

#### CATEGORICAL COURSE Hall 10a 0800 - 0845 VASCULAR INTERVENTIONAL RADIOLOGY 5 [p. 57]

Chairman: *M Dean*  
**0800** Renal Angioplasty and Embolization  
*Invited Review A-M Belli, St George's Hospital, London*

#### REFRESHER COURSE Hall 10b 0800 - 0845 LASERS IN MEDICINE [p. 57]

**0800** Review of Lasers in Medicine  
*Invited Review W M Davies, Swansea NHS Trust*

#### REFRESHER COURSE Hall 11a 0800 - 0850 BARIUMS IN THE '90s [p. 57]

Chairman: *D J Nolan*  
**0800** The Role of the Barium Examination  
*Invited Review P J Shorvon, Central Middlesex Hospital, London*  
**0825** Beyond the Duodenum  
*Invited Review A H Chapman, St James's University Hospital, Leeds*

#### REFRESHER COURSE Hall 11b 0800 - 0845 TRANSRECTAL US & PROSTATE BIOPSY [pp. 57-58]

Chairman: *W R Lees*  
**0800** Transrectal Ultrasound & Prostate Biopsy  
*Invited Review D Rickards, Middlesex Hospital, London*

#### REFRESHER COURSE

*Olympian Suite 0800 - 0845*

#### MRI & INTRACRANIAL INFECTION [p. 58]

**0800** MRI and Intracranial Infection  
*Invited Review I F Moseley, National Hospital for Neurology and Neurosurgery, London*

#### STATE OF THE ART SYMPOSIUM

*Hall 1 0845 - 1045*

#### EUROPEAN RADIOLOGY - OPPORTUNITIES FOR COLLABORATION [pp. 58-59]

Chairman: *I Isherwood*  
**0845** Radiology in Europe - Radiological Education  
*Invited Review L Dalla Palma, University Hospital Cattinara, Trieste, ITALY*  
**0900** European Ultrasound  
*Invited Review H B Meire, King's College Hospital, London*  
**0915** Nuclear Medicine  
*Invited Review P Ell, The Middlesex Hospital, London*

- 0930** The European Congress  
*Invited Review H G Ringertz, Karolinska Hospital, Stockholm, SWEDEN*  
**0945** Obtaining European Support for Your Research  
*Invited Review G Cherryman, Leicester Royal Infirmary*  
**1000** The EAR Database  
*Invited Review J Struyven, University Hospital Erasme, BELGIUM*  
**1015** Discussion

#### BRITISH INSTITUTE OF RADIOLOGY Hall 9 0900 - 0945

#### PRESIDENTIAL ADDRESS [p. 59]

- 0900** The Cancer Patient in the Radiology Department; Do We Live Up to Our Responsibilities?  
*S J Golding, University of Oxford*

#### WORK IN PROGRESS Hall 10a 0900 - 0950 RADIOGRAPHIC REPORTING [pp. 123-124]

- Chairman: *A Paterson*  
**0900** Radiographic Reporting of the Axial and Appendicular Skeleton by Radiographers and Nurse Practitioners  
*S Boynes, University of Bradford*  
**0910** Monitoring the Effectiveness of a Clinical Reporting Educational Programme: Are Radiographers Getting it Right?  
*R D Eyres, University of Salford, Manchester*  
**0920** A Thematic Analysis of Accredited Education Programmes in Radiographic Reporting  
*A M Paterson, Canterbury Christ Church College, Canterbury*  
**0930** The Accuracy of Radiographers' Reports in Examinations of the Skeletal System  
*K J Piper, Canterbury Christ Church College, Canterbury*  
**0940** The Implementation of Radiographic Reporting - A Preliminary Survey  
*A M Paterson, Canterbury Christ Church College, Canterbury*

#### STATE OF THE ART SYMPOSIUM

*Hall 10b 0900 - 1100*

#### IMAGING TECHNOLOGY 1 [p. 60]

- Chairman: *D Hawkes*  
**0900** Developments in MRI  
*Invited Review M A Smith, Leeds General Infirmary*  
**0925** Developments in Radionuclide Imaging  
*Invited Review T D Beynon, University of Birmingham*  
**0950** Developments in Ultrasonic Imaging  
*Invited Review P N T Wells, Bristol General Hospital*  
**1015** Clinical PET with a Low-cost 3D PET Scanner, the ECAT ART  
*H E Young, Hammersmith Hospital, London*

- 1025 Combined US and MRI System for MR Interventions  
*J A S Brookes, The Middlesex Hospital, London*
- 1035 High Precision <sup>1</sup>H MRS Metabolite Peak Area Ratios and Concentrations Using Automated Acquisition and Post-Processing  
*E Moore, Maudsley Hospital, London*
- 1045 Psychophysical Limitations of Radiological Film Reading and Proposed Solution - A Novel Film Reading Technology  
*D Inbar, SmartLight Ltd, Nesher, ISRAEL*
- 1055 Discussion

**SCIENTIFIC SESSION Hall 11a 0900 - 1010**  
**CT OF THE COLON [p. 61]**

- Chairman: *R Reznik*
- 0900 Is Minimal Preparation CT Comparable with Barium Enema in Elderly Patients with Colonic Symptoms?  
*J M Domjan, Southampton General Hospital*
  - 0910 Spiral CT Pneumocolon in the Pre-operative Staging of Colonic Carcinoma  
*L A Aphthorp, Guy's & St Thomas' Hospital Trust, London*
  - 0920 Virtual Endoscopy: Comparison with Colonoscopy in the Detection of Space-Occupying Lesions of the Colon  
*C L Kay, Medical University of South Carolina, Charleston, USA*
  - 0930 Spiral CT Pneumocolon to Assess Colonic Tumours: Radiological-Pathological Correlation  
*C J Harvey, Middlesex Hospital, London*

- 0940 *Invited Review* Spiral CT of the Bowel  
*W R Lees, Middlesex Hospital, London*

**SCIENTIFIC SESSION Hall 11b 0900 - 1010**  
**CARDIAC IMAGING 1 [pp. 62-63]**

- Chairman: *C Reek*
- 0900 Right Ventricular Wall Motion Assessment by Magnetic Resonance Imaging  
*M A Veiga, Leeds General Infirmary*
  - 0910 Assessment of Right Ventricular Volumes by Breath-hold Cine MRI in Normal Adults  
*T N Bloomer, Leeds General Infirmary*
  - 0920 Mechanical Left Ventricular Assist Devices in the Treatment of Left Ventricular Failure  
*P Boardman, John Radcliffe Hospital, Oxford*
  - 0930 Imaging of Cardiac and Paracardiac Masses: The Complementary Role of MRI to Echocardiography  
*C Sampson, St Luke's Medical Center, Milwaukee, USA*

- 0940 *Invited Review* Stressing the Myocardium  
*M R Rees, University of Bristol, Bristol Royal Infirmary*

**SCIENTIFIC SESSION**  
**Olympian Suite 0900 - 1030**  
**NEURORADIOLOGY 1 [pp. 63-64]**

- Chairman: *I Moseley*
- 0900 *Invited Review* Interventional Neuroradiology of Intracranial Aneurysms  
*A J Molyneux, Radcliffe Infirmary NHS Trust, Oxford*
- 0930 Evaluation of the Role of Magnetic Resonance Myelography in Lumbar Spine Imaging  
*J Thornton, Beaumont Hospital, Dublin*
  - 0940 MRI Appearances of the Cervical Cord in Multiple Sclerosis  
*C J Beveridge, Royal Victoria Infirmary, Newcastle-upon-Tyne*
  - 0950 Does Saturation of Clivus Fat Signal Improve Visualisation of the Pituitary?  
*H M Taylor, Guy's and St Thomas' Hospital, London*
  - 1000 Abnormalities on Proton Magnetic Resonance Spectroscopy in Asymptomatic HIV-Positive Individuals  
*I D Wilkinson, The Middlesex Hospital, London*
  - 1010 Expert-Novice Differences in the Interpretation of MRI of the Brain  
*N P Jeffery, University of Sussex, Brighton*
  - 1020 Whole Brain Functional MRI Using an Auditory Stimulus and Echo Planar Imaging  
*J Galliers, The Wellcome Department of Cognitive Neurology, London*

**COLLEGE OF RADIOGRAPHERS**  
**Hall 9 1000 - 1030**

**50TH ANNUAL CONFERENCE [p. 64]**

- Chairman: *D Hardy*
- 1000 Presidential Address  
*J Henderson*

**STATE OF THE ART SYMPOSIUM**  
**Hall 11b 1030 - 1145**

**CORONARY ARTERIOGRAPHY [pp. 64-65]**

- Chairman: *J H Reid*
- 1030 *Invited Review* Imaging Equipment  
*C M Turnbull, Western General Hospital, Edinburgh*
  - 1050 *Invited Review* Safe Technique  
*C Reek, The Glenfield Hospital, Leicester*
  - 1110 *Invited Review* Interpretation of Angiograms  
*M S T Ruttle, University Hospital of Wales, Cardiff*
  - 1130 Discussion

**STATE OF THE ART SYMPOSIUM**

*Hall 9 1045 - 1215*

*THE FUTURE OF RADIOGRAPHY [p. 65]*

- Chairman: *J Henderson*  
**1045** The Responsibilities of a Professional into the 21st Century  
*Invited Review R I Johnson, Osborne Clarke Solicitors, Bristol*  
**1115** Continuing Professional Development  
*Invited Review J Adams, NHS Executive, Leeds*  
**1145** Delegation of Radiological Procedures to Radiographers  
*Invited Review A H Chapman, St James's University Hospital, Leeds*

**SCIENTIFIC SESSION Hall 11a 1045 - 1155**

*GYNAECOLOGICAL IMAGING [pp. 65-66]*

- Chairman: *J McHugo*  
**1045** Gynecological Oncology: Imaging in Times of Cost Constraints  
*Invited Review H Hricak, University of California, San Francisco, USA*  
**1115** Image Capture: A Mechanism to Reduce Patient Radiation Dose in Hysterosalpingography  
*N T F Ridley, Northwick Park Hospital, Harrow*  
**1125** Assessment of Interobserver and Intraobserver Variability of Endometrial Measurements by MRI and a Standardized TVS Technique  
*R L Tetlow, Princess Royal Hospital, Hull*  
**1135** The Quantification of Blood Velocity and Flow in the Uterine Vessels Using Echo Planar Imaging at 0.5 T  
*B Issa, Hull Royal Infirmary, Hull*  
**1145** Changes Induced by Tamoxifen on the Uterus of Post-menopausal Women with Breast Cancer: Preliminary TVS, MRI and Pathological Findings  
*L W Turnbull, Hull Royal Infirmary*

**SCIENTIFIC SESSION**

*Olympian Suite 1050 - 1200*

*NEURORADIOLOGY 2 [pp. 66-68]*

- Chairman: *A J Molyneux*  
**1050** Embolization of Intracranial Meningiomas Prior to Surgery  
*J J Bhattacharya, Newcastle General Hospital*  
**1100** Temporal Horn Dilatation; An Indirect Sign in CT Negative Subarachnoid Haemorrhage  
*I Britton, Glasgow Royal Infirmary*  
**1110** Diagnostic Studies in Thrombotic Cerebral Venous Disease  
*E Teasdale, Southern General Hospital NHS Trust, Glasgow*  
**1120** Use of Single Slice Thick Slab Phase Contrast Angiography as a Screening Technique for Dural Venous Sinus Thrombosis  
*W M Adams, Manchester Royal Infirmary*

- 1130** Use of High Resolution Spoiled Gradient-recalled Acquisition in the Steady State Volume Imaging of the Optic Nerve in Graves Ophthalmopathy  
*J S Butterfield, University of Manchester*  
**1140** MRI of Optic Neuritis: Value of Combined Fat and Water Suppression  
*A Kassner, University of Manchester*  
**1150** Imaging Features of Leptomeningeal Metastatic Disease  
*J P Brush, Western General Hospital, Edinburgh*

**100th BIRTHDAY SYMPOSIUM**

*Hall 1 1100 - 1150*

*HISTORY [p. 68]*

- Chairman: *J M Guy*  
**1100** J J Thomson and the Discovery of the Electron  
*Invited Review G Squires, University of Cambridge*  
**1125** Marie Curie and Medicine  
*Invited Review S Quinn, Massachusetts, USA*

**WORK IN PROGRESS Hall 10a 1100 - 1200**

*GASTROINTESTINAL TRACT [pp. 124-125]*

- Chairman: *R A Frost*  
**1100** The Clinical Effectiveness of the Gianturco Oesophageal Stent  
*H U Laasch, Hope Hospital, Salford*  
**1110** MR Elastography of Human Liver Specimens: Initial Results  
*D J Lomas, Addenbrooke's Hospital, Cambridge*  
**1120** Magnetic Resonance Cholangiography in Obstructive Jaundice  
*G J Robinson, Queen Elizabeth Hospital, Birmingham*  
**1130** Magnetic Resonance Cholangiography on a 0.5 T Scanner  
*M B Matson, Guy's Hospital, London*  
**1140** Magnetic Resonance Imaging of Fistula in Ano: Are Endo anal Coils Necessary?  
*S Halligan, St Mark's Hospital, Middlesex*  
**1150** Small Bowel Examination by Breath-hold MRI  
*D J Lomas, Addenbrooke's Hospital, Cambridge*

**STATE OF THE ART SYMPOSIUM**

*Hall 10b 1110 - 1210*

*IMAGING TECHNOLOGY 2 [pp. 68-69]*

- Chairman: *P N T Wells*  
**1110** Image-guided Surgery  
*Invited Review D Hawkes, Guy's & St Thomas's Hospital, London*  
**1135** Developments in Electrical Impedance Tomography  
*Invited Review D C Barber, Royal Hallamshire Hospital, Sheffield*  
**1200** Discussion

**BRITISH INSTITUTE OF RADIOLOGY**  
*Hall 1 1200 - 1245*  
**IMMATION MAYNEORD MEMORIAL LECTURE**  
*[p. 69]*  
**1200** Diagnostic Imaging and Interventional  
 Therapy of the Hepatocellular  
 Carcinoma  
*L Dalla Palma, University Hospital  
 Cattinara, Trieste, ITALY*

**ROYAL SOCIETY OF MEDICINE**  
*Hall 1 1300 - 1345*  
**FINZI LECTURE [p. 69]**  
**1300** Advanced MRI of the Pelvis  
*J O Barentsz, University Hospital  
 Nijmegen, THE NETHERLANDS*

**COLLEGE OF RADIOGRAPHERS**  
*Hall 9 1300 - 1345*  
**STANLEY MELVILLE MEMORIAL LECTURE**  
*[p. 69]*  
**1300** Psychosocial Support for Cancer  
 Patients - The Future  
*J Young, Mount Vernon Hospital,  
 Middlesex*

**SCIENTIFIC SESSION Hall 11a 1350 - 1520**  
**OBSTETRIC IMAGING [pp. 69-71]**

Chairman: *H Andrews*

**1350** Proximal Tubal Disease, Diagnosis and  
 Treatment  
*Invited Review J M McHugo, Birmingham Women's  
 Hospital*

**1410** Tubal Catheterization  
*Invited Review M Crofton, St Mary's Hospital, London*

**1430** Is Scanning in an Early Pregnancy  
 Clinic an Effective Screening Method  
 for Ectopic Pregnancy. A Review of  
 500 Cases  
*I Lyburn, Bristol Royal Infirmary*

**1440** Prenatal Cranial MRI in Assessment of  
 US Detected Fetal Anomalies  
*A Coulthard, Royal Victoria Infirmary,  
 Newcastle-upon-Tyne*

**1450** Changes in Fetal Liver Physiology  
 Demonstrated by Echo Planar Imaging  
*B S Worthington, University Hospital,  
 Queen's Medical Centre, Nottingham*

**1500** Volume Estimation of Fetal Brain,  
 Liver, Lungs and Maternal Uterus by  
 MRI  
*Q Y Gong, University of Liverpool*

**1510** Estimation of Fetal Developmental Age  
 by 3D MRI of Brain  
*J A S Brookes, The Middlesex Hospital,  
 London*

**SCIENTIFIC SESSION**  
**Olympian Suite 1350 - 1530**  
**ENT IMAGING [pp. 71-72]**

Chairman: *J Olliff*

**1350** Head and Neck Imaging  
*Invited Review J E Gillespie, Manchester Royal  
 Infirmary*

**1420** Is Imaging for Distant Metastases  
 Justified in Pre-operative Staging of  
 Head and Neck Malignancy?  
*M L Hughes, Royal Liverpool &  
 Broadgreen University Hospitals,  
 Liverpool*

**1430** MRI and CT in the Assessment of  
 Recurrent Head and Neck Cancer  
*H G Lewis-Jones, Aintree Hospitals  
 NHS Trust, Liverpool*

**1440** MR Imaging of Nasopharyngeal  
 Carcinoma  
*A D King, Prince of Wales Hospital,  
 Shatin, HONG KONG*

**1450** Prediction of the Intraparotid Portion of  
 the Facial Nerve With MRI and CT  
*J Latimer, Freeman Hospital, Newcastle-  
 upon-Tyne*

**1500** Pendred Syndrome: A Clinical, Imaging  
 and Genetic Study  
*P D Phelps, The Royal National Throat,  
 Nose & Ear Hospital, London*

**1510** Salivary Duct Stenosis and Calculi: Is  
 Sialographic Intervention Effective?  
*A L Brown, St George's Hospital,  
 London*

**1520** Correlation of CT Detection of Skull Base  
 Invasion with nm23 cDNA Mutation in  
 Nasopharyngeal Carcinoma  
*Y S Tyan, Military 803 General  
 Hospital, Taiwan, CHINA*

**100th BIRTHDAY SYMPOSIUM**  
**Hall 1 1400 - 1500**  
**FUTURE [p. 72]**

Chairman: *M Smith*

**1400** The Future of Functional Imaging  
*Invited Review M Maisey, Guy's Hospital, London*

**1430** Digital Imaging  
*Invited Review D J Allison, Hammersmith Hospital,  
 London*

**SCIENTIFIC SESSION Hall 10b 1400 - 1510**  
**PHYSICS MAMMOGRAPHY [pp. 72-74]**

Chairman: *A Hufton*

**1400** Image Quality Variations in the NHS  
 Breast Screening Programme  
*K C Young, Royal Surrey County  
 Hospital*

**1410** Pectoralis Major Muscle as a Reference  
 Density in Analysis of Digitized  
 Mammograms - A Practical Assessment  
*R H Pearson, Aberdeen Royal Infirmary*

**1420** Wavelet Transform Image Enhancement  
 and Classification Applied to Digital  
 Mammography  
*T Lambrou, University College London*

**WEDNESDAY 21 MAY**

- 1430** Shape Analysis Measures to Differentiate Between Benign and Malignant Masses  
*J R Finn, Imperial College, London*
- 1440** Finding Spicules in Mammograms  
*R Zwiggelaar, University of Manchester*
- 1450** Physical Image Quality Evaluation of a Charge Coupled Device Based Digital Mammographic Imaging System  
*M Payne, King's College Hospital, London*
- 1500** Analysis of Pharmacokinetic Breast MRI Using a Model of Contrast Enhancement  
*P M Hayton, Oxford University*  
*Work in Progress*

**SCIENTIFIC SESSION Hall 11b 1400 - 1530**  
**CARDIAC IMAGING 2 [pp. 74-75]**

**Chairman:** *M Ruttle*

- 1400** Cardiac MR: Adult Congenital Heart Disease  
*A J Jones, Bristol Royal Infirmary*  
*Invited Review*
- 1430** Activated Guidewire Angioplasty Using Soft Wires: Results From Four Treatment Centres  
*M R Rees, University of Bristol*
- 1440** Myocardial Perfusion Studies in Patients with End-stage Renal Failure  
*C Harvey, Middlesex Hospital, London*
- 1450** Myocardial Perfusion Imaging: A Comparison of MRI and Thallium-201 in Patients with Acute Myocardial Infarction  
*G R Cherryman, University of Leicester*
- 1500** The Hidden Treasures of the Mediastinum  
*J B Partridge, Harefield Hospital, Middlesex*  
*Invited Review*

**COLLEGE OF RADIOGRAPHERS**

**Hall 9 1415 - 1515**  
**AWARDS CEREMONY**

**Chairman:** *D Hardy*

**SCIENTIFIC SESSION**  
**Hall 10b 1520 - 1610**

**PROTECTION OF THE PATIENT [p. 75]**

- Chairman:** *C-L Chapple*
- 1520** The Effect of Fluoroscopic kVp-mA Curves on Patient Effective Dose  
*D G Sutton, Ninewells Hospital, Dundee*
- 1530** Dose-area Product Results for a Range of Interventional Procedures  
*A D Cotterill, St George's Hospital, London*
- 1540** Influence of Technique on Image Quality and Dose in Paediatric Imaging  
*J V Cook, Queen Mary's Hospital for Children, Surrey*

- 1550** Variations in the Performance of Automatic Exposure Controls in General Radiography  
*J C Kyriou, St George's Hospital, London*
- 1600** Optimization of Dose and Image Quality in Fluoroscopy  
*K Faulkner, Newcastle General Hospital, Newcastle-upon-Tyne*  
*Work in Progress*

**BIRTHDAY DEBATE Hall 9 1530 - 1700**  
**THIS HOUSE PROPOSES THAT IN VIEW OF OTHER DEVELOPMENTS IN CLINICAL IMAGING, X-RAYS ARE OBSOLETE**

**Chairman:** *I R Young, Robert Steiner MR Unit, Hammersmith Hospital, London*

**Speakers for the motion:**

*Dr P Robinson, St James's Hospital, Leeds*  
*Professor L D Hall, Herchel Smith Laboratory for Medical Chemistry, Cambridge*

**Speakers against the motion:**

*Dr P Goddard, Bristol Royal Infirmary, Bristol*  
*Professor G E Adams, MRC Radiobiology Unit, Didcot*

**Summing up for the motion:**

*Professor D Allison, RPMS, Hammersmith Hospital, London*

**Summing up against the motion:**

*Professor A Adam, UMDS Guy's & St Thomas' Hospital, London*

**WORK IN PROGRESS Hall 10a 1530 - 1610**  
**RADIOGRAPHY [pp. 125-126]**

- Chairman:** *D Hardy*
- 1530** A Computerized Positioning Device for Patient Positioning in Diagnostic Medical Imaging  
*M McBride, Glasgow Caledonian University*
- 1540** A Study of the Interrelated Agreement for the Assessment of Bone Scans  
*D O'Halloran, Leeds University, School of Healthcare Studies*
- 1550** What Should a Community Ultrasound Service Look Like?  
*V Aitken, King's College School of Medicine & Dentistry, London*
- 1600** An Analysis of a Community Based Multimedia Patient Information System for Obstetric Ultrasound  
*P Hogg, University of Salford*

**WORK IN PROGRESS Hall 11b 1545 - 1635**  
**NEURORADIOLOGY [pp. 126-127]**

- Chairman:** *tba*
- 1545** Magnetic Resonance Imaging in the Neurosciences: Changes in Clinical Utility 1988-1995  
*P L Riley, Walsgrave Hospital NHS Trust, Coventry*

- 1555** Ceramide Resonance in Highly Malignant Glioma of Brain  
*V Lombardi, Bari University Med. Vet., Acquaviva, ITALY*
- 1605** Brain Compartment Analysis in the Edinburgh Cohort of HIV-Positive Drug Users  
*J J K Best, City Hospital, Edinburgh University*
- 1615** Electron Paramagnetic Resonance Spectroscopic Study of Free Radicals in Spinal Cord Ischaemia: A Stroke Model  
*V Lombardi, Bari University Med. Vet., Acquaviva, ITALY*
- 1625** Evaluation of Carotid Endarterectomy with Sequential MR Perfusion Imaging  
*J H Gillard, Addenbrooke's Hospital, Cambridge*

**SCIENTIFIC SESSION**  
**Olympian Suite 1545 - 1645**  
*infoRAD™ 5 [p.76]*

Chairman: *D Harvey*

- 1545** IT Applications and Recent Developments  
*K Boddy, Edinburgh Healthcare Telematics Centre*
- 1605** Remote Reporting of Emergency CT Scans Using Teleradiology - A 2 Year District General Hospital Based Experience  
*R A Evans, Mayday University Hospital, Surrey*
- 1615** Reporting from PACS Workstations: An Assessment of the Effect on Reporting Times  
*S Bryan, Brunel University, Middlesex*
- 1625** Large Screen Image Presentation Integrated in a PACS: First Experiences  
*E C Kotter, Freiburg University, GERMANY*
- 1635** Interpretation Time of CT Scans with Stacked-view PACS Workstation vs Film Alternator in Patients with Small Bowel Obstruction  
*J H Lim, Samsung Medical Center, Seoul, KOREA*

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**NOTES**



## SCIENTIFIC POSTER EXHIBITION

Scientific posters will be displayed within the MED X RAY® technical exhibition at the National Indoor Arena. (For opening times please see programme page 6)

<b>Topic</b>	<b>Poster Nos.</b>	<b>Page Nos.</b>
Paediatrics	0101 - 0102	77
Neuroradiology	0201 - 0208	77-79
ENT	0301 - 0304	79
Chest	0401 - 0403	80
Cardiac	0501 - 0505	80-81
Gastrointestinal Tract	0601 - 0623	81-85
Genitourinary Tract	0701 - 0704	85-86
Musculoskeletal	0801 - 0824	86-91
Vascular and Interventional Radiology	0901 - 0919	91-94
Obstetrics and Gynaecology	1001 - 1006	94-95
Breast Imaging	1101 - 1107	95-97
Nuclear Medicine	1201 - 1203	97
Radiotherapy and Oncology	1301 - 1306	97-99
Physics	1401 - 1434	99-105
Radiography	1501 - 1516	105-108
Management	1601 - 1603	108-109
Miscellaneous	1701 - 1705	109
Student Work	1801 - 1806	135-136

### Work in Progress Posters

Neuroradiology	0209	129
Chest	0404	129
Gastrointestinal Tract	0624 - 0625	129
Genitourinary Tract	0705	129-130
Musculoskeletal	0825	130
Vascular and Interventional Radiology	0920 - 0921	130
Nuclear Medicine	1204	130
Radiotherapy & Oncology	1307 - 1309	131
Physics	1435 - 1436	131
Radiography	1517	131-132

## **infoRAD™ - NATIONAL INDOOR ARENA**

The *infoRAD™* event is concerned with Healthcare Informatics - the use of computers to help in the management, application and analysis of health related information. The following exhibits will be on display in the National Indoor Arena. Abstracts for these exhibits can be found on pages 111-116. (*For opening times please see programme page 6*)

WebCT: A New Tool for the Development of Web-Based Material in Radiology  
*J Aldrich, The Vancouver Hospital, British Columbia, CANADA*

Training Materials for Medical Imaging: Online  
Co-ordinator of Global WWW Resources  
*E Berry, University of Leeds*

Desktop Volume Rendering  
*A J Bissell, Voxar Ltd, Edinburgh*

The Development of a Multimedia Package to Deliver a Radiography Master's Programme  
*S Bowman, University College of St Martin, Lancashire*

Developing Your Own Radiological Management System  
*H K Chow, Kings Mill Centre, Sutton-in-Ashfield*

Using DICOM on a PC Platform  
*A R Davies, Princess Margaret Hospital, Swindon*

The X-ray Files  
*A C Downie, Guy's & St Thomas' Hospitals, London*

Patient Education Video Production Using Digital Photography  
*J G French, Fraser Valley Cancer Centre, British Columbia, CANADA*

Digital Camera Images by e-mail  
*A Green, Kodak Limited, Middlesex*

Software Interface to Allow Querying and Retrieval of DICOM Images on a Standard Web Browser  
*D J Harvey, Singleton Hospital, Swansea*

A PC-based DICOM Teleradiology Workstation  
*M P Hayball, Papworth Hospital NHS Trust, Cambridge*

Multimedia Staff Information System for Obstetric Ultrasound  
*P Hogg, University of Salford, Manchester*

MEDIATE - A Tool for Assisting Training in Description, Interpretation and Diagnosis from MR Images  
*N Jeffery, Sussex University, Brighton*

New Workstation Technologies in Medicine  
*N W John, Silicon Graphics, Manchester*

Interactive Radiology Tutorials Using the Calscribe Template for Asymmetrix Toolbook 42  
*A J Jones, United Bristol Teaching Hospitals, Bristol*

Interactive Radiology Tutorial Design Using HTML  
*A V Kaji, Allegheny University - MCP, Pennsylvania, USA*

Interactive Radiotherapy Planning for Students  
*S M Loft, Weston Park Hospital, Sheffield*

Calibration Concept for Medical Display Technology  
*P Matthijs, Barco nv, Display Systems, Kortrijk, BELGIUM*

Saving Time and Money - X-Ray QA the Jimmy's Way  
*A Parkin, St James's Hospital Trust, Leeds*

3D Image Fusion of Multimodal Tomographic Images in Clinical Practice  
*M W Preiss, Justus-Liebig-Universitaet, Giessen, GERMANY*

Digital Film Viewer - A Novel Film Reading Technology: Hands-on Experience  
*A Rippel, Rambam University Hospital, Haifa, ISRAEL*

An Oncology Department Intranet for Information Dissemination and Other Clinical Services  
*J Rosalki, North Middlesex Hospital, London*

BIR Library and Information Service  
*K J Sanders, British Institute of Radiology, London*

Clinical Oncology MAISY - An Intergrated, Computerized Audit and Administrative System  
*V Saunders, Derbyshire Royal Infirmary*

Portal Image Processing System (PIPS)  
*S Shalev, Manitoba Cancer Foundation, Winnipeg, CANADA*

An Image Processing Package Designed for End Users to Add Their Own Functions  
*A E Todd-Pokropek, University College London*

OMNI: Organizing Medical Networked Information  
*S M Welsh, National Institute for Medical Research, London*

A PC-based Image Archiving System for X-Ray Angiographic Images  
*R J Winder, Royal Hospitals Trust, Belfast*

A 4 Year Experience with Vendorless Telenuclear Medicine  
*M D Wittry, Saint Louis University Health Sciences, Missouri, USA*

The Acquisition of Radiological Diagnostic Information Using Hand-held Technology  
*K Woodward, University of Derby*

"RASCAL" - Radiology and Surgery Computer Aided Learning : An Interactive Teaching Program on Head Injury  
*J M Young, Whittington Hospital, London*