

# **RADIOLOGY & ONCOLOGY '94**

**Harrogate 23 – 25 May 1994**

The 52nd Annual Congress of the British Institute of Radiology incorporating the joint Spring Meeting with the Royal College of Radiologists and the Radiology Section of the Royal Society of Medicine.

For UK delegates, the Radiology programme has been awarded 30 RCR CME Credits and the Oncology programme has been awarded 32 RCR CME Credits.

For participants from the USA, The RSNA is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians. The RSNA designates this continuing medical education activity, Radiology & Oncology '94, for a maximum of 18 credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

**Please note that the BJR Congress Supplement replaces the Programme and Abstracts book mailed to Congress delegates in advance of the meeting. This year the BJR Congress Supplement also contains the Work in Progress abstracts.**

**If you are attending the Congress,  
please remember to bring this copy with you.**

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## ORGANIZING COMMITTEES

### Congress Committee

Mrs E Beckmann	BIR President and Chairman
Professor G E Adams	BIR Vice President
Mr A Budge	BIR Honorary Secretary
Dr R H Corbett	Co-opted Scientific Programme Vice Chairman & BIR Honorary Secretary
Dr P Dawson	BIR Vice President
Dr S J Golding	Scientific Programme Chairman & BIR Vice President
Dr W Hately	BIR Past President
Dr W G Jones	Local Representative
Dr S Hankey	Local Representative
Dr D S McIntosh	BIR Honorary Treasurer
Professor M A Smith	Local Representative
Ms V Whitehead	BIR Conference and Events Manager
Ms M-A Piggott	BIR Chief Executive
Dr T Hogan	BIR Publications Manager
Miss E Carruthers	BIR Congress and Events Co-ordinator

### Scientific Programme Committee

Dr S J Golding (Chairman)	Dr S Harland (RSM)
Dr R H Corbett (Vice-Chairman)	Dr W Hately
Professor G E Adams	Dr W G Jones
Mrs E Beckmann	Dr M Law (Sci. Poster Exhibition Co-ordinator)
Mr A Budge	Dr I McCall (RCR)
Dr P Dawson	Dr P Price (RCR)
Dr A Folkes (RSM)	Professor M A Smith
Dr S Hankey	Ms V Whitehead
Dr R Harrison (IPSM)	

### Acknowledgements

The BIR acknowledges with gratitude the help and support of the following:

3M UK plc	Mr A M Oxley and his team
Amersham International plc	Picker International Ltd
Anglo-Japanese Radiological Society	RAD Magazine
Bioglan Laboratories Ltd	Siemens plc
Du Pont (UK) Ltd	Student Radiographers from the Leeds College of Health & the Cookridge Hospital
IGE Medical Systems Ltd	Department of Radiotherapy Education
Kodak Ltd	Toshiba Medical Systems Ltd
Local Representatives & their Hospital Departments	Yorkshire Cancer Research Campaign

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### Röntgen Centenary Congress

International Convention Centre and National Indoor Arena, Birmingham

12 – 16 June 1995

Held in association with The College of Radiographers, the Institute of Physical Sciences in Medicine, the Royal College of Nursing, the Royal College of Radiologists and the Royal Society of Medicine.

Proffered abstracts are invited for oral and poster presentations and will form a major element of the meeting.

Deadline for receipt of abstracts: **FRIDAY 25 NOVEMBER 1994**

Further information from the BIR Conference Office,  
36 Portland Place, London W1N 4AT

## MESSAGE FROM THE BIR PRESIDENT

I am delighted to welcome you to Radiology & Oncology '94, the 52nd Annual Congress of the British Institute of Radiology, and to the accompanying MED X RAY® exhibition.



This year's conference programme includes Theme Days on Emerging Technology, Nuclear Medicine, Oncological Imaging plus Radiation and Cancer Biology, which incorporates a symposium on Molecular Genetics. There are also Teach-ins, Consensus Workshops and a Film Viewing session. At the time of writing this looks like being one of our largest meetings ever.

Our Eponymous Lecturers will speak on three very different aspects of radiology and oncology. Their presentations promise to show us yet again how the multidisciplinary nature of our specialities continues to expand. It is a great pleasure to welcome them and all our other invited speakers to Harrogate this year. The Scientific Programme Committee, chaired by Stephen Golding, has created from these foundations a very educational and stimulating programme.

For the first time this year we have introduced a new "InfoRAD" section on the application of information and computer technology within radiology. This is modelled upon the innovative, very popular and successful "InfoRAD" display at RSNA. It is hoped that the presenters and attendees will be able to interact positively in this most stimulating area of work. Another introduction this year will be the launch of a Daily Conference Newspaper which will highlight the activities and key events for each day.

The MED X RAY® exhibition organized jointly with The College of Radiographers is the largest exhibition of its kind in the UK. It provides an excellent opportunity to keep up to date with the latest developments and trends in equipment, supplies and accessories.

Vanessa Whitehead and the Conference Team, who have organized this Congress, will be found at the registration desk and on-site Conference Office should you have any problems or queries.

Thank you for participating in this year's Congress which promises to be one of the most interesting and varied as well as one of the largest. I hope that you will have a very interesting, stimulating and enjoyable meeting at Radiology & Oncology '94 in Harrogate.

LIZ BECKMANN  
BIR PRESIDENT 1993/94

## GENERAL INFORMATION

### Congress Site

Radiology & Oncology '94 takes place at the Harrogate International Centre (HIC) and the Moat House International Hotel in Harrogate. Plenary lectures are held in the Royal Hall; all other sessions take place within the Moat House International Hotel and the Royal Hall as shown on the timetable grid (see pages xii–xvii). A layout map of the Hotel and HIC is included on the inside back cover.

### Registration

Your delegate's pack contains all relevant tickets (please check these), list of delegates, the MED X RAY® guide and your Congress badge.

Your badge entitles you to admission to all lectures at Radiology & Oncology '94 and to MED X RAY® for the days on which you are registered and must be worn throughout the Congress.

### Registration Desk Opening Times

The Registration Desk will be situated in the main concourse of the Harrogate International Centre and will be open at the following times:

Sunday	4.00pm – 7.00pm
Monday & Tuesday	8.00am – 4.30pm
Wednesday	8.00am – 2.00pm

### MED X RAY®

MED X RAY® runs for the three days of the Congress, from Monday 23 May – Wednesday 25 May, to span the annual meetings of the British Institute of Radiology and The College of Radiographers. MED X RAY® is sited in Halls B, C and D of the HIC. The opening times are:

**Monday - Wednesday 23 - 25 May**  
**9.00am - 5.30pm**

Full details of the companies exhibiting are given in the MED X RAY® guide in your delegate's pack.

### Messages

Please check the notice board by the registration desk for messages.

### Scientific Poster Exhibition

The large Scientific Poster Exhibition is in Hall B. Opening times are the same as for MED X RAY®.

BIR posters will be discussed in chaired sessions and a note of the date, time and session of oral presentation will be on the poster. Abstracts are included within the relevant sessions. The BIR poster exhibition includes presentations on the following topics:

- Computed Tomography
- Interventional Radiology
- Magnetic Resonance Imaging
- Nuclear Medicine
- Radiation Physics
- Radiobiology
- Radiological Physics
- Radiotherapy and Oncology
- Ultrasound

### InfoRAD®

An area designed as an electronic learning centre of non-commercial exhibits. The exhibits are developed to help radiologists and allied scientists manage information for education, research, patient care and practice management. This area will be situated in Hall B, within the Scientific Poster Exhibition. (The term InfoRad® is used by permission of the RSNA.)

### RAD Magazine Poster Prize

The judging for the best proffered poster (content and presentation) will take place on Monday.

### BIR Information Stand

The BIR stand will be Stand 9 in Hall D, within MED X RAY®. For further details see the MED X RAY® guide. BIR staff and Council members will be available to discuss any aspect of the Institute's activities. We welcome both members and non-members to come and discover the benefits of membership.

### Telephone

There will be a telephone manned during Congress registration opening hours for urgent messages: Harrogate (0423) 526999. Messages will be

posted on the message board for delegates' attention.

Public telephones are on site in the exhibition halls, conference centre, the Royal Hall and the Moat House International Hotel.

### **Refreshments**

Points dispensing free tea and coffee on production of a voucher are sited throughout MED X RAY® from Monday to Wednesday. Refreshments will be available throughout the day.

### **Lunch**

Light snacks are available on a cash basis from refreshment points within MED X RAY®.

### **Cloakrooms**

Cloakrooms are available on level 4 of the Conference Centre.

### **First Aid**

A medical centre is located within the International Centre which will be manned during opening times by the St John Ambulance Brigade.

### **Car Parking**

There are two underground car parks at the Centre. On street parking is also available (there is a disc scheme in operation). However, parking should not be a problem in Harrogate as most of the hotels have car parks and the majority of hotels

are within walking distance of the International Centre.

### **Facilities on site**

Photocopying and fax facilities are available.

### **All about your badge**

All delegates are asked to wear the conference badge at all times so that they are identifiable as a delegate. This badge allows access into the session rooms as well as MED X RAY®. The badges have been printed with the support of Siemens plc (hence their name on the badge).

A **Gold** badge indicates a **member** of the BIR. A **Grey** badge indicates a **non-member** of the BIR.

Other information on the badge besides the delegate name and hospital/institution/company shows whether they are a proffered presenter, delegate, staff, audio visual steward/consultant, invited speaker or guest.

The numbers of days the delegate has been registered for is indicated by F = Full registration (*i.e.* three days), M = Monday, T = Tuesday and W = Wednesday (as well as any combination of these).

Those badges which have ribbons attached are given to the President of the BIR, BIR Council Members, Sessional Chairman, Invited Speakers, the Secretariat and the Audio Visual Consultants and Stewards.

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## **Partners Programme** (*admission by ticket only*)

Please note that the trips may be cancelled if numbers are low.

### **Monday 23 May**

#### *York for the day*

Leaving Harrogate at 9.30am travelling via Knaresborough and Green Hammerton to York for a guided tour of the Minster, and a visit to the Railway Museum, the Castle Museum and the Shambles. The coach leaves York at 4.15pm and returns to Harrogate at 5.00pm (cost £12.50 excluding lunch).

### **Tuesday 24 May**

#### *Herriot country*

Leaving Harrogate at 9.30am travelling via the historic village of Ripley, Fountains Abbey and Ripon Cathedral to Richmond. The tour will then return to Harrogate through the area where the series "All Creatures Great and Small" was filmed. Cost including tour of Richmond Castle, tea and scones is £20.00 (excluding lunch).

## **Social Programme** (*admission by ticket only*)

### **Sunday 22 May**

#### *Radiology & Oncology '94 Fishing Competition:*

The 1994 fishing outing will be held on the Bolton Abbey Estate Waters, river Wharfe (fly fishing only). Meeting at the Devonshire Arms Hotel, Bolton Abbey between 12.30 and 2pm. Lunch at your own expense. Fishing will be between 2pm and 8pm then back to the Devonshire Arms carpark to decide the winner. Please note all grayling must be returned and only barbless hooks used. Cost, including evening meal, is £15.00. Maximum of 20 rods. Further details from Dr W G Jones, Cookridge Hospital, Leeds LS16 6QB. Telephone: Leeds (0532) 673411, fax (0532) 611507.

#### *Informal Welcome Gathering, 6.00pm–8.00pm:*

This will be held in the foyer, level 5 of the HIC. Meet your fellow delegates, have a drink and pick up your conference folder on Sunday evening so that you can plan your lecture programme in advance. (Free.)

### **Monday 23 May**

#### *Radiology Golfing Society Tournament:*

The tournament will be held at Pannal Golf Club starting at 1.30pm. There will be a ladies' and a gentlemen's Stableford competition (maximum of 45 competitors) and a dinner in the evening at the clubhouse. Cost, including green fees, is £29.00. Lunch and dinner are sponsored and transport may be arranged if there is sufficient interest. Please contact the BIR Conference Office for an application form.

#### *River Ouse Boat Trip 6.30pm–10.30pm:*

An evening cruise through the historic city of York and surrounding countryside on the River Ouse whilst enjoying a buffet supper. Cost includes coach transport, boat trip, buffet and VAT is £23.00.

#### *National Museum of Photography, Film and Television, Bradford 6.30pm–10.30pm:*

This evening of entertainment is generously supported by Kodak Ltd and includes a drinks reception within the Kodak Museum following by a film (provisionally the Grand Canyon) in the spectacular IMAX cinema and buffet supper. Cost including transport, buffet, film, wine and VAT is £22.50.

#### *Yorkshire Country Wines 6.30pm–10.30pm:*

Taste the natural fruit wines produced by Peggy and Swillgut Bacon-face by the banks of the River Nidd followed by a buffet supper of local pâtés and cheeses. Cost including coach transport, tasting, buffet and VAT is £15.50.

### **Tuesday 24 May**

#### *Conference Dinner and Dance 7.30pm for 8.00pm*

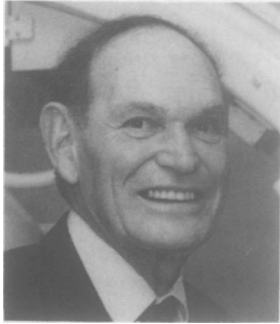
At the Old Swan Hotel, Harrogate. There will be free seating. Dress is black tie/dark suit. Cost, including wine, dancing and VAT is £33.50 per person. The dinner and dance will be held jointly with The College of Radiographers.

While all information was correct at the time of going to press, we regret that it was impossible to make changes notified later.

## HONORARY MEMBERS 1993

### DR JAMES AMBROSE

As the first radiologist in the world to use computerized axial tomography scanning Dr Ambrose holds a unique place in the history of British Radiology. He presented his initial report of this then new technique at the Annual Congress of the BIR on 19 April 1972.



Dr Ambrose was born in South Africa and during the Second World War he served as a pilot in the RAF. Subsequently he trained in Medicine, coming to London to train in radiology at the Middlesex Hospital, later becoming a Senior Registrar at Guy's Hospital where he developed his interest in neuroradiology. He then moved to Atkinson Morley Hospital where he worked with distinction until his retirement in 1988.

As Senior Radiologist in the Department of Neuroradiology at Atkinson Morley Hospital, Dr Ambrose was a key member of the team involved with the developing application of CT scanning to the brain. Dr Ambrose received the BIR Barclay Prize jointly with Sir Godfrey Hounsfield in 1974. In 1975 he received the annual prize of the European Society of Neuroradiologists and in 1977 he was elected an FRCP. He was awarded the Gold Medal of the Royal College of Radiologists in 1992. It is with great pleasure that he was awarded Honorary Membership of the BIR in 1993.

### PROFESSOR SIR PETER MANSFIELD

Professor Sir Peter Mansfield graduated with first class honours from Queen Mary College in London and was awarded his PhD in 1962. He then spent two years at the University of Illinois as a Research Associate moving to Nottingham University in 1964, where he became Professor of Physics in 1969. He is currently Director of the new Magnetic Resonance Centre which has recently opened at the University of Nottingham.



His early work was connected with the development of new techniques in NMR studies of molecular interactions in solids and liquid crystals. In 1973 he published a paper entitled "NMR – diffraction in solids", which is the first to refer to the possibility of harnessing NMR in the field of microscopy. Professor Mansfield has made enormous contributions to the subsequent development of magnetic resonance imaging. In 1974 he introduced the method for active excitation for isolating discreet slices during imaging. In 1977 he published a paper which laid the foundation of his pioneering work in high speed imaging and his invention of echo-planar imaging. This has had an enormous impact because it eliminates movement artefact.

Professor Mansfield's achievements have been recognized internationally through many prestigious awards. He has been elected Fellow of the Royal Society, and he received a Knighthood in the 1993 New Years Honours List.

Honorary Members shall be selected from distinguished persons who have contributed by original research to the scientific advancement of radiology, radioactivity and allied sciences, or who have rendered services for which the Institute desires to confer honour. The recipients will receive their medals at the BIR AGM on Tuesday 24 May 1994.



## BIR DISTINGUISHED SERVICE MEDAL WINNERS 1994

### DR DON S McINTOSH

Dr McIntosh was educated at Glasgow Academy, and both Glasgow and Strathclyde Universities, obtaining a BSc in Pharmacy and a PhD in Physical Pharmaceutical Chemistry.



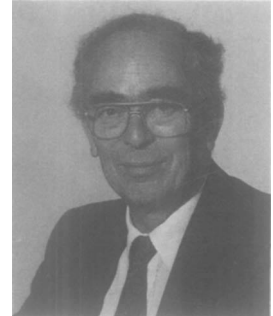
Shortly after graduation, Dr McIntosh embarked upon a career in industry. This started with three years as Production Manager of a major UK Pharmaceutical manufacturer and was followed by four years with PA International Management Consultants.

20 years ago, Dr McIntosh acquired Premise Engineering, the Radiation Shielding manufacturer. He has built up Premise from a handful of employees to a company recognized worldwide within the Medical, Industrial and Government Utility Fields. Five years ago Dr McIntosh acquired Amersham Limited from Amersham International. Amersham is already recognized internationally for its isolators for nuclear medicine, for technetium dispensing and blood cell labelling.

Dr McIntosh became Honorary Treasurer of the BIR in 1985 and has developed and presided over the impressive financial turnaround of the Institute since that time. He is awarded the Distinguished Service Medal for that invaluable contribution.

### PROFESSOR GEORGE DU BOULAY

Edward Philip George Houssemayne du Boulay CBE, DSc, MB, DMRD, FRCR, FRCP, Hon FACR decided, over a solitary cup of coffee in a shop off Piccadilly in 1944, while still a medical student, that he might be suited to a career in radiology.



Since his election in November 1949, his connections with the BIR have been far-reaching. He was President of the BIR in 1976–77. Before that he was non-medical Honorary Secretary for five years (1970–1975). He was awarded the Barclay Medal in 1968 and was made an Honorary Member of the BIR in 1985. Immediately after his Presidency he launched the appeal to raise money (just under one million pounds) to enable the BIR to buy the lease on 36 Portland Place and refurbish the building. His expertise in fundraising is of vital importance today in his role as a member of the BIR Fundraising Action Group.

His other jobs within the BIR have included Scientific Poster Exhibition Co-ordinator for many years, Associate Editor of the BJR, and BIR observer on the Veterinary Diploma in Radiology examination panel and he has been on just about every committee the BIR has. He also set up the Radiological Research Trust which is in its ninth year.

He is awarded the Distinguished Service Medal in recognition of his invaluable contribution to the BIR.

The Distinguished Service Medal is awarded to Members of the Institute for distinguished service to the Institute. There would normally be a maximum of two medals awarded by the Institute per presidential year. The recipients will receive their medals at the BIR AGM on Tuesday 24 May 1994.

## EPONYMOUS LECTURERS 1994

### SILVANUS THOMPSON LECTURE

#### PROFESSOR ANDREW TODD-POKROPEK

Andrew Todd-Pokropek is currently Professor of Medical Physics, a joint post created at University College London (Department of Medical Physics) and the Institute of Child Health (Physics and Radiology). As an undergraduate he read physics at the University of Oxford. His first post was (as Assistant Lecturer 1964-1972) at the Institute of Nuclear Medicine, The Middlesex Hospital Medical School where he undertook his postgraduate studies. He assisted in the then rapid development of nuclear medicine instrumentation, was involved in the development of one of the first computer systems for use in medical imaging, and participated in the design of the first SPECT system in Europe. In 1972 he spent a sabbatical year at the Institut Gustave Roussy in France. He returned to London to take up a post as Senior Lecturer at the then University College Hospital Medical School, which eventually became part of University College London. He was appointed Reader in 1989 and Professor 1993. He has become increasingly involved with medical image processing and data handling, firstly in nuclear medicine and latterly in radiology in general. His areas of research extend from finding solutions for inverse problems to defining standards for medical image transfer to developing expert systems for use in medicine, and he has published widely.



### MACKENZIE DAVIDSON LECTURE

#### DR JANET E S HUSBAND

Dr Husband underwent medical training at Guy's Hospital, qualifying in 1964. Her early clinical experience was also at Guy's and she began her radiological training in 1971. After a period in a research post she was appointed Consultant Radiologist to the Royal Marsden Hospital and Honorary Senior Lecturer at the Institute of Cancer Research in 1977. She has also held a senior appointment at the BUPA Medical Centre and is Director of the CT Scanning Unit at the London Clinic.



Janet Husband has made a notable international contribution to the field of computed tomography in oncology. She has published extensively, and was awarded the BJR Barclay Prize for contributions to the British Journal of Radiology in 1987. She is in great demand as a speaker and in 1982 founded the International London Course in Whole Body Computed Tomography, which she has continued to direct. She was Honorary Secretary of the BIR from 1981 to 1984.

The Silvanus Thompson Memorial Lecture "Multimodality image fusion: going from research to PACS" will be given in the Royal Hall at 12.15pm on Monday 23 May.

The Mackenzie Davidson Memorial Lecture "Imaging of treated cancer" will be given in the Royal Hall at 12.15pm on Tuesday 24 May.

## 3M MAYNEORD MEMORIAL LECTURE

## HERE TO HELP

### PROFESSOR MICHAEL BRADY

Michael Brady is Professor of Information Engineering and Head of the Department of Engineering Science at the University of Oxford. He completed his PhD in 1970 in Mathematics at the Australian National University. Following this, Professor Brady was appointed to a lectureship at Essex University where he developed an interest in artificial intelligence, especially in computer vision.



In 1980 Professor Brady was appointed Senior Research Scientist in the Artificial Laboratory of the Massachusetts Institute of Technology. He played a major role in establishing the Robotics Research Group there. In August 1985 he left MIT to take up the newly created chair in Information Engineering at Oxford University and to found the Oxford Robotics Research Group. He has been head of the Department of Engineering Science since July 1989. The Oxford Robotics Research Group is one of the leading groups of its kind in the world. The group comprises some 48 academics, post-doctoral researchers, academic and industrial visitors and graduate students and is involved in a variety of projects sponsored by industry and governments.



*From left to right: (standing) Elizabeth Carruthers (Conference Dept.), Christine Mills (Accounts), Vanessa Whitehead (Conference Dept.), Tony Hudson (Administration), Mary-Anne Piggott (Chief Executive), Tim Hogan (Publications), Nora Kennelly (PA to Chief Executive/Committee Co-ordinator), Helen Smith (Publications and Marketing), Terry Moran (House Manager), (seated) Rachel Edwards (Publications), Gillian Burke (Membership), Charlotte McLeish (Conference), Pat Moran (Housekeeper), Julia Rodd (Publications). Mrs Mills and Miss Burke will not attend the Congress. Mrs Maryam Molana-Stone (Library) not in photograph.*

BIR staff will be on hand throughout the Congress to help with any queries relating to the Congress or the BIR in general.

All staff wear badges with distinctive Secretariat ribbons and can be found at the Radiology & Oncology '94 Registration Desk, the on-site conference office within the main foyer and the BIR stand (Stand 9) in Hall D.

The 3M Mayneord Memorial Lecture "Image processing and mammography" will be given in the Royal Hall at 12.15pm on Wednesday 25 May.

**MONDAY 23 MAY**

	<b>ROYAL HALL</b>	<b>RIPLEY</b>	<b>HAREWOOD I</b>	<b>HAREWOOD II</b>	<b>BRAMHAM</b>	<b>CHARTER</b>
8.45	OPENING — BIR President					
9.00 — 10.15	<b>WORKSHOP: NEW IMAGING MODALITIES</b> <i>Invited Reviews:</i> Prof B H Brown, Sheffield Dr D J Lurie, Aberdeen Dr D T Delpy, London Dr D Brooks, London Prof G M Bydder, London Dr J P Mäkelä, Espoo, Finland	<b>GASTROINTESTINAL IMAGING</b> <i>Invited Review:</i> Prof G W Stevenson, Hamilton, Canada	<b>ULTRASOUND</b> <i>Invited Review:</i> Dr H Irving, Leeds	<b>VASCULAR IMAGING</b>	<b>RADIOTHERAPY FOR HEAD &amp; NECK CANCER</b> <i>Invited Review:</i> Dr P Dawes, Newcastle	<b>NUCLEAR MEDICINE I</b> <i>Invited Review:</i> Dr G Vivian, Plymouth
10.45 — 12.00		<b>MUSCULOSKELETAL IMAGING: THE SPINE</b> <i>Invited Review:</i> Dr V Cassar-Pullitino, Oswestry	<b>CLINICAL MAGNETIC RESONANCE</b> <i>Invited Review:</i> Mr P Sharpe, Bridgwater	<b>CRANIAL PAEDIATRIC IMAGING</b> <i>Invited Review:</i> Dr O Floodmark, Stockholm, Sweden	<b>BRACHYTHERAPY &amp; GYNEAEOLOGICAL CANCER</b> <i>Invited Review:</i> Prof C A Joslin, Leeds	<b>NUCLEAR MEDICINE II</b> <i>Invited Review:</i> Dr P J Robinson, Leeds
12.15 — 1.15	<b>SILVANUS THOMPSON MEMORIAL LECTURE</b> Professor A Todd- Pokropek, London				<b>ONCOLOGY WORK IN PROGRESS</b>	
2.15 — 3.45	<b>DIGITAL IMAGING</b> <i>Invited Reviews:</i> Prof M A Smith, Leeds Dr A R Cowen, Leeds	<b>TEACH-IN: MRI OF THE SPINE</b> <i>Invited Reviews:</i> Dr D Hadley, Glasgow Dr R Sigal, Villejuif, France Dr D Vanel, Villejuif, France Dr I McCall, Oswestry	<b>MANAGEMENT &amp; AUDIT</b> <i>Invited Review:</i> Dr D C Levin, Philadelphia, USA	<b>GASTROINTESTINAL IMAGING</b> <i>Invited Review:</i> Dr A Chapman, Leeds	<b>MODERN CLINICAL ONCOLOGY: CARCINOMA OF THE BREAST, ETC</b>	<b>NUCLEAR MEDICINE III</b> <i>Invited Reviews:</i> Dr R J Burwood, Brighton Dr P J Mountford, Birmingham
4.15 — 5.30	<b>PRESIDENTIAL ADDRESS</b>	<b>VASCULAR ULTRASOUND</b>	<b>WORK IN PROGRESS: CLINICAL PROJECTS</b>	<b>MODERN RADIOTHERAPY</b> <i>Invited Reviews:</i> Dr R E Taylor, Leeds Dr S Fosså, Oslo		

# PERSONAL PLANNER MONDAY 23 MAY

Morning

Afternoon

Evening


**08.45 – 09.00am**  
Opening by BIR President

**09.00 – 10.15am**  
*Scientific Sessions*  
Gastrointestinal Imaging  
Ultrasound  
Vascular Imaging  
Radiotherapy for Head & Neck  
    Cancer: Current Approaches  
Nuclear Medicine I

**09.00 – 12.00noon**  
*Workshop*  
New Imaging Modalities

**10.45 – 12.00noon**  
*Scientific Sessions*  
Musculoskeletal Imaging: The Spine  
Clinical Magnetic Resonance  
Cranial Paediatric Imaging  
Brachytherapy & Gynaecological  
    Cancer  
Nuclear Medicine II

**12.15pm**  
SILVANUS THOMPSON  
MEMORIAL LECTURE  
"Multimodality image fusion: going  
from research to PACS", Professor  
Andrew Todd-Pokropek, London

**12.15 – 1.15pm**  
*Scientific Session*  
Oncology Work in Progress

**2.15 – 3.45pm**  
*Scientific Sessions*  
Digital Imaging  
Management & Audit  
Gastrointestinal Imaging  
Modern Clinical Oncology:  
    Carcinoma of the Breast, etc  
Nuclear Medicine III

**2.15 – 5.30pm**  
*Teach-in: MRI of the Spine*

**4.15 – 5.30pm**  
PRESIDENTIAL ADDRESS  
"Technology through the looking  
glass", Elizabeth Beckmann, Lanmark

**4.15 – 5.30pm**  
*Scientific Sessions*  
Vascular Ultrasound  
Work in Progress: Clinical Projects  
Modern Radiotherapy: Paediatrics,  
    Urology

**6.30pm**  
*Social Events*  
River Ouse Boat Trip  
National Museum of Photography  
Yorkshire Country Wines

TUESDAY 24 MAY						
	ROYAL HALL	RIPLEY	HAREWOOD I	HAREWOOD II	BRAMHAM	CHARTER
8.15			AGM (BIR members only)			
9.00	ONCOLOGY IMAGING I <i>Invited Review:</i> Dr J A Spencer, Leeds	ADVANCES IN MRI <i>Invited Review:</i> Prof B S Worthington, Nottingham	TECHNIQUES IN MUSCULOSKELETAL IMAGING <i>Invited Review:</i> Dr S E M Clarke, London Dr W Gibbon, Leeds	PAEDIATRIC & ANTENATAL IMAGING <i>Invited Review:</i> Dr H Carty, Liverpool	RADIATION PROTECTION I <i>Invited Review:</i> Prof R H Clarke, Chilton Mr B F Wall, Chilton	SYMPOSIUM: MOLECULAR GENETICS AND CANCER BIOLOGY <i>Invited Reviews:</i> Prof B Ponder, Cambridge Prof D P Lane, Dundee Dr R Cox, Chilton Dr E G Wright, Chilton
10.15		CARDIOVASCULAR MRI				
	<b>COFFEE IN MED X RAY</b>					
10.45	ONCOLOGY IMAGING II <i>Invited Review:</i> Prof B L McClellan, St Louis, USA	INTERVENTIONAL RADIOLOGY <i>Invited Review:</i> Dr A Adam, London	MUSCULOSKELETAL IMAGING <i>Invited Review:</i> Dr V Jevtic, Ljubljana, Slovenia	MANAGEMENT <i>Invited Review:</i> Dr D C Levin, Philadelphia, USA Mr G A McCormack, Manchester	RADIATION PROTECTION II <i>Invited Review:</i> Dr R M Harrison, Newcastle	
12.15	MACKENZIE DAVIDSON MEMORIAL LECTURE Dr J Husband, London			WORK IN PROGRESS: TECHNICAL PROJECTS		
1.15						
	<b>LUNCH IN MED X RAY</b>					
2.15	ONCOLOGY IMAGING III <i>Invited Review:</i> Dr G W Stevenson, Hamilton, Canada	MR TECHNOLOGY <i>Invited Review:</i> Dr H-J Weinmann, Berlin, Germany	CHEST IMAGING <i>Invited Review:</i> Prof P O Alderson, New York, USA	INTERVENTIONAL RADIOLOGY	BODY COMPOSITION & TISSUE CHARACTERIZATION <i>Invited Review:</i> Dr S Pors Nielsen, Hillerød, Denmark	PHOTODYNAMIC THERAPY <i>Invited Review:</i> Dr F A Stewart, Amsterdam, The Netherlands
3.45						
	<b>TEA IN MED X RAY</b>					
4.15	ONCOLOGY IMAGING IV <i>Invited Review:</i> Prof P Van Waas, Utrecht, The Netherlands Dr R Sigal, Villejuif, France	FILM VIEWING Prof J Weir, Aberdeen	CONTRAST MEDIA & GENITOURINARY IMAGING <i>Invited Review:</i> Prof B L McClellan, St Louis, USA			TEACH-IN: MEDICAL GENETICS <i>Invited Review:</i> Prof J M Connor, Glasgow Prof M Steel, St Andrew's
5.30						

# PERSONAL PLANNER TUESDAY 24 MAY

Morning

Afternoon

Evening


**08.15am** BIR AGM (members only)

**09.00 – 10.15am**

*Scientific Sessions*

Oncology Imaging I

Advances in MRI

Techniques in Musculoskeletal

Imaging

Paediatric & Antenatal Imaging

Radiation Protection I

**09.00 – 12.00noon**

*Symposium*

Molecular Genetics & Cancer Biology

**10.45 – 12.00noon**

*Scientific Sessions*

Oncology Imaging II

Interventional Radiology

Musculoskeletal Imaging

Management

Radiation Protection II

**12.15pm**

MACKENZIE DAVIDSON

MEMORIAL LECTURE

"Imaging of treated cancer", Dr Janet

Husband, Sutton

**12.15 – 1.15pm**

*Scientific Session*

Work in Progress: Technical Projects

**2.15 – 3.45pm**

*Scientific Sessions*

Oncology Imaging III

MR Technology

Chest Imaging

Interventional Radiology

Body Composition & Tissue

Characterization

Radiobiology: Photodynamic

Therapy

**4.15 – 5.30pm**

*Scientific Sessions*

Oncology Imaging IV

Contrast Media & Genitourinary

Imaging

*Teach-In* Medical Genetics

**4.15 – 5.30pm**

Film Viewing

**7.30pm**

*Social Events*

BIR/COR Conference Dinner &

Dance at the Old Swan, Harrogate

<b>WEDNESDAY 25 MAY</b>					
	<b>ROYAL HALL</b>	<b>RIPLEY</b>	<b>HAREWOOD I &amp; II</b>	<b>BRAMHAM</b>	<b>CHARTER</b>
9.00 — 10.15	<b>ADVANCES IN CT &amp; BODY IMAGING</b> <i>Invited Review:</i> Prof P Van Waes, Utrecht, The Netherlands	<b>ULTRASOUND</b> <i>Invited Review:</i> Dr J A Evans, Leeds	<b>WORKSHOP: INTERVENTIONAL RADIOLOGY</b> <i>Invited Reviews:</i> Dr P A Gaines, Sheffield Dr D F Martin, Manchester Dr G Plant, Basingstoke	<b>NEURORADIOLOGY</b> <i>Invited Reviews:</i> Dr R Sigal, Villejuif, France Prof M Takahashi, Honjo, Japan	<b>WORKSHOP: QUALITY ASSURANCE IN RADIOTHERAPY TREATMENT PLANNING</b> <i>Invited Reviews:</i> Dr A M Crellin, Leeds Dr J E Marrs, Manchester Dr J E Shaw, Bebington Dr E G Aird, Northwood Dr J Dobbs, London Dr J Povall, Leeds Dr A Morgan, Leeds
<b>COFFEE IN MED X RAY</b>					
10.45 — 12.00	<b>TRAUMA</b> <i>Invited Review:</i> Prof P O Alderson, New York, USA	<b>TEACH-IN: HRC OF THE CHEST</b> <i>Invited Review:</i> Dr C D R Flower, Cambridge Dr F Gleeson Oxford	Co-organised with BSIR	<b>RADIOLOGICAL HISTORY</b> <i>Invited Reviews:</i> Dr R F Mould, Croydon Dr U Hennig, Remscheid-Lennep, Germany	
12.15 — 1.15	<b>3M MAYNEORD MEMORIAL LECTURE</b> Professor M Brady, Oxford	<b>MAGNETIC RESONANCE WORK IN PROGRESS</b>			
<b>LUNCH IN MED X RAY</b>					
2.15 — 3.45		<b>GASTROINTESTINAL IMAGING</b>	<b>THE BREAST</b> <i>Invited Review:</i> Dr J Law, Edinburgh	<b>CLINICAL MAGNETIC RESONANCE</b>	<b>AIDS: RADIOTHERAPY &amp; RADIOLOGY</b> <i>Invited Reviews:</i> Dr M F Spittle, London Dr M Hall-Craggs, London Dr W R Lees, London
4.15 — 5.30	<b>TEA IN MED X RAY</b>				



# PERSONAL PLANNER WEDNESDAY 25 MAY

Morning

Afternoon

Evening

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**09.00 – 10.15am**

*Scientific Sessions*

Advances in CT & Body Imaging

Ultrasound

Neuroradiology

**09.00 – 12.00noon**

*Workshops*

Interventional Radiology

Quality Assurance in Radiotherapy

Treatment Planning

**10.45 – 12.00noon**

*Scientific Sessions*

Trauma

Radiological History

*Teach-In* HRCT of the Chest

**12.15pm**

3M MAYNEORD MEMORIAL

LECTURE

"Image processing and  
mammography", Professor Michael  
Brady, Oxford

**12.15 – 1.15pm**

*Scientific Session*

Magnetic Resonance Work in  
Progress

**2.15 – 3.45pm**

*Scientific Sessions*

The Breast

Gastrointestinal imaging

Clinical Magnetic Resonance

AIDS: Radiotherapy & Radiology

## MED X RAY® EXHIBITORS

Listed below are the companies exhibiting at MED X RAY®, the UK's largest exhibition devoted to the radiological sciences. It is held jointly with The College of Radiographers and is open to all delegates at Radiology & Oncology '94 throughout the Congress. This is the ideal opportunity to view the very latest in equipment and services to the whole industry, and to meet the leading manufacturers to discuss how modern technology can help you. Further information can be found in the MED X RAY® guide within your delegate's pack.

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WAVERLY EUROPE LTD  
WISEPRESS LTD  
WOLVERSON X-RAY LTD  
X-OGRAPH IMAGING SYSTEMS  
X-RITE

**MONDAY 23 MAY**

**MONDAY 23 MAY**

*Royal Hall (8.45–9.00)*  
 Opening of Radiology & Oncology '94 by BIR President, Elizabeth Beckmann, Lanmark.

*Royal Hall (9.00–12.00)*

**WORKSHOP**

**NEW IMAGING MODALITIES**

[pp. 1–3]

Chairman & Organizer: Dr I R Young, London

**Electrical impedance tomography**

*Invited review*

**Professor B H Brown, Sheffield**

Imaging free radicals by EPRI and PEDRI

*Invited review*

Dr D J Lurie, Aberdeen

**The clinical application and utility of infrared as a means of monitoring the human brain**

*Invited review*

**Dr D T Delpy, London**

The application of PET to monitor brain function

*Invited review*

Dr D Brooks, London [No abstract]

**The application of MRI to monitoring brain function**

*Invited review*

**Professor G M Bydder, London**

Magnetic source imaging in healthy subjects and in neurological patients

*Invited review*

Dr J P Mäkelä, Espoo, Finland

*Ripley Suite (9.00–10.25)*

**GASTROINTESTINAL IMAGING** [pp. 4–7]

Chairman: Dr D F Martin, Manchester

**9.00 Clinical disorders of gastrointestinal motility**

*Invited review*

**Professor G W Stevenson, Hamilton, Canada**

9.25 Videofluoroscopy of the denervated stomach: a useful assessment of gastric emptying  
 A Quinn, Dublin

**9.33 Barium meal audit: who, why and how good?**

**P A Hulse, Salford**

9.41 The impact of screening dose in the use of conventional radiography versus 100mm photofluorography in barium meal examination  
 A S K Dzik-Jurasz, London

9.45 **The use of water-soluble non-ionic contrast agents for small bowel follow-through examinations**

**J C Jobling, London**

9.53 MR imaging of small bowel Crohn's disease

D Walker, Southampton

**10.01 Pseudomembranous colitis: diagnostic sensitivity of the abdominal plain radiograph**

**G W Boland, Boston, USA**

10.05 An audit of barium enemas in patients over 70 years of age – single or double contrast?

R S Davies, Liverpool

**10.09 A blinded prospective trial of low residue versus normal diet in preparation for barium enema**

**P G Kember, Sheffield**

10.17 Active steps in barium enemas – do we need them?

R Farrow, Bristol

10.25 End of session

*Harewood Suite I (9.00–10.29)*

**ULTRASOUND** [pp. 8–11]

Chairman: Dr P L Allen, Edinburgh

**9.00 Interventional ultrasound**

*Invited review* **Dr H Irving, Leeds** [No abstract]

9.25 Infertility – prostate ultrasound and antegrade ejaculatory ductography in the diagnosis of strictures in the genital tract  
 D Rickards, London

**9.33 Abdominal sonography in the evaluation of patients with abnormal viscero-atrial situs**

**K Oleszczuk-Raschke, Cambridge**

9.41 Ultrasound detection of intraperitoneal fluid

S Peterson, Stoke-on-Trent

**9.45 Lymph node anatomy**

**C Metreweli, Shatin, Hong Kong**

9.49 Physiological splenomegaly

J D Hunter, Plymouth

**9.53 Ultrasonic assessment of hemidiaphragmatic movement in acute stroke**

**J G Houston, Glasgow**

9.57 Transabdominal ultrasonic detection of intraperitoneal adhesions

H D'Costa, Plymouth

## MONDAY 23 MAY

- 10.05 **Ultrasound of cutaneous tumours with a 7.5MHz probe**  
S A Worthy, Sunderland
- 10.13 Ultrasound: a useful diagnostic modality in imaging of chronically draining sinuses  
A K Nath, Muscat, Sultanate of Oman
- 10.21 **Orbital ultrasound in Graves' disease of the thyroid**  
B J McKeown, London
- 10.29 End of session

*Harewood Suite II (9.00–10.16)***VASCULAR IMAGING** [pp. 12–15]

Chairman: Dr C Reek, Leicester

- 9.00 **Videodensitometric measurement of intra-arterial contrast media concentration during arteriography: a new technique**  
J G McNeill, London
- 9.08 How much variation exists in the type of agents used during angiography or angioplasty in the UK?  
D M A Jackson, London
- 9.16 **Interstitial non-ionic contrast lymphangiography**  
G T Abbott, Liverpool
- 9.24 Evaluation of the Belfast DVT screener in suspected lower limb deep venous thrombosis  
S J Freeman, Bristol
- 9.32 **Ongoing experience in the radiological placement of right atrial catheters**  
F Wallis, Dublin
- 9.36 Morbidity and acceptability of day-case angiography using 5 French catheters  
F Jewell, Bristol
- 9.44 **Buhler's arc: a rare congenital vascular anomaly**  
A Benincasa, Turin, Italy
- 9.48 Use of carbon dioxide as a contrast agent for intra-arterial digital subtraction angiography  
D C Hinwood, Nottingham
- 9.56 **Vascular calcification in non-diabetic renal transplant recipients. Does it matter?**  
P Hession, Newcastle upon Tyne
- 10.04 Arterial insufficiency of the ipsilateral leg in renal transplantation: implications and management  
W L Teh, London

- 10.08 **Angiographic assessment of peripheral vascular disease in South Asian males compared with non-Asians**  
A Padhani, London
- 10.12 Peripheral angiography using the reverse shuffle technique  
J W Oxtoby, Stoke-on-Trent
- 10.16 End of session

*Bramham Suite (9.00–10.09)***RADIOTHERAPY FOR HEAD AND NECK CANCER: CURRENT APPROACHES** [pp. 16–18]

Chairman: Dr D Morgan, Nottingham

9.00 **Planning a clinical oncology department**  
*Invited review* Dr P J D K Dawes, Newcastle upon Tyne

- 9.25 Accuracy of treatment in a conformal radiotherapy trial: a prospective analysis of 90 patients  
R A Huddart, Sutton
- 9.33 **Hyperfractionated radiotherapy of tumours in the cavity of the mouth and the oropharynx**  
M Niewald, Homburg/Saar, Germany
- 9.41 Response of supraglottic tumours of the larynx to radical radiotherapy  
A G Robertson, Glasgow
- 9.49 **Carcinoma of the larynx: results of radiotherapy and surgery in 116 patients**  
M Portaluri, San Giovanni Rotondo, Italy
- 9.53 Cancer of the floor of mouth treated by surgery with or without post-operative radiotherapy  
A G Robertson, Glasgow
- 9.57 **Medullary carcinoma of the thyroid misdiagnosed as differentiated thyroid carcinoma**  
A M Moody, London
- 10.01 Prognostic significance of locoregional progression in patients with laryngeal cancer after irradiation  
M Niewald, Homburg/Saar, Germany
- 10.05 **Concurrent bleomycin and radiotherapy in oral cancer: influence of serum iron on mucositis and tumour control**  
V N Bhattathiri, Trivandrum, India
- 10.09 End of session

## MONDAY 23 MAY

*Charter Suite (9.00–10.13)***NUCLEAR MEDICINE I** [pp. 19–22]

Chairman: Dr N Garvie, London

**9.00 Radioisotopes and paediatric urinary tract infection***Invited review* Dr G C Vivian, Truro

9.25 Plug and play MRA – challenging isotope renography

G Roditi, Aberdeen

**9.29 Imaging infection: a personal algorithm for the use of cell labelling**

J R Buscombe, London

9.33 Indium-111-labelled leucocyte uptake in inflammatory conditions of the aorta

M Fink, Cambridge

**9.37 SPECTPLAN: a quantitative SPECT imaging-based 3D dosimetry methodology for use in radioimmunotherapy treatment planning**

H Zaidi, Alger, Algeria

9.45 Lymphotropic scintigraphy with <sup>67</sup>Ga citrate in the malignant lymphoma

B Sinyuta, Kiev, Ukraine

**9.49 Quantification of neck uptake of <sup>131</sup>I in scans of patients with residual carcinoma of the thyroid**

S Chopra, Nottingham

9.57 Radiological appearances of radiation pneumonitis secondary to selective internal radiation therapy with yttrium-90 microspheres for inoperable hepatocellular carcinoma

S C Ward, Shatin, Hong Kong

**10.05 The investigation of dementia – still a confusing issue?**

S V Thorogood, Plymouth

10.13 End of session

*Ripley Suite (10.45–12.06)***MUSCULOSKELETAL IMAGING: THE SPINE** [pp. 23–26]

Chairman: Dr R W Kerslake, Nottingham

**10.45 End plate disease***Invited review* Dr V Cassar-Pullicino, Oswestry

11.10 Current protocols for routine lumbar spine MRI in the UK

A Coulthard, Newcastle upon Tyne

**11.14 Gadolinium enhancement in MRI of symptomatic nerve roots causing sciatica**

P N M Tyrrell, Oswestry

11.18 The thoracolumbar spine on MRI in patients with long-standing ankylosing spondylitis

P N M Tyrrell, Birmingham

**11.26 MR assessment of the spinal complications of ankylosing spondylitis**

J S Dawson, Nottingham

11.30 Spectrum of MRI appearances in tuberculous spondylitis

A J Crisp, Nottingham

**11.38 The relationship between surface and radiological deformity in adolescent idiopathic scoliosis**

N D Scutt, Liverpool

11.46 Magnetic resonance imaging using single weighting in cervical radiculopathy

B M Morrissey, Cardiff

**11.54 The relative value of  $T_1$  weighted and  $T_2$  weighted axial images in the MRI assessment of degenerative disc disease in the lumbar spine**

J Haddock, London

12.02 Computed tomography in assessment of pedicular screw fixation

J F Leahy, Oswestry

12.06 End of session

*Harewood Suite I (10.45–12.18)***CLINICAL MAGNETIC RESONANCE**

[pp. 27–30]

Chairman: Professor G Cherryman, Leicester

**10.45 MRI – expensive technology?***Invited review* Mr P Sharpe, Bridgwater11.10 Conspicuity of white matter lesions using TurboFLAIR pulse sequences as compared with turbo  $T_2$  weighted sequences

P C Wou, Plymouth

**11.18 Endocrine pancreatic tumours: the role for magnetic resonance imaging**

N R Moore, Oxford

11.26 Oral contrast media enhanced echoplanar MR imaging of mesenteric and retroperitoneal masses

M M J McNicholas, Boston, USA

**11.34 External fixation devices: evaluation of safety and image artefact in MRI**

P C Wou, Plymouth

11.42 Practical applications of 3D MRI at 0.5 T

J M Hawnaur, Manchester

## MONDAY 23 MAY

- 11.46 Magnetic resonance imaging of the endometrium prior to embryo transfer**  
**L W Turnbull, Hull**
- 11.54 MRI for pulmonary nodules?  
R Uberoi, Bristol
- 12.02 Subtraction techniques in Gd-DTPA enhanced MR imaging of breast disease**  
**F L Flanagan, Dublin**
- 12.10 Proton MR spectroscopy in AIDS: changes in metabolite relaxation times  
I D Wilkinson, London
- 12.18 End of session

*Harewood Suite II (10.45–11.54)***CRANIAL PAEDIATRIC IMAGING** [pp. 31–33]

Chairman: Dr G M Hendry, Edinburgh

- 10.45 Imaging of cerebral malformations**  
*Invited review* **Dr O Flodmark, Stockholm, Sweden**
- 11.10 Cranial CT appearances in physical child abuse – diagnostic features  
J M Tibballs, London
- 11.14 MR assessment of age-related development of the sphenoid sinus**  
**D Szolar, Graz, Austria**
- 11.22 The Yorkshire craniosynostosis cluster: clinical features and radiological investigation. A pictorial essay  
K S Naik, Leeds
- 11.26 Multispiral 3D CT of craniosynostosis: technique optimization, pitfalls, problems and solutions**  
**C M Craven, Leeds**
- 11.34 The differential diagnosis of prominent “CSF spaces” on paediatric cranial CT  
J M Tibballs, London
- 11.38 Epidural manifestation of AML and ALL imitating acute epidural haemorrhage**  
**W Küker, Aachen, Germany**
- 11.42 Computed tomography in childhood orbital cellulitis  
N B Wright, Liverpool
- 11.50 Autosomal recessive osteopetrosis with renal tubular acidosis and cerebral calcification**  
**P McDonald, Riyadh, Saudi Arabia**
- 11.54 End of session

*Bramham Suite (10.45–11.58)***BRACHYTHERAPY AND GYNECOLOGICAL CANCER** [pp. 34–36]

Chairman: Dr J T Roberts, Newcastle upon Tyne

- 10.45 HDR brachytherapy in the treatment of skin tumours**  
*Invited review* **Professor C A Joslin, Leeds**
- 11.10 High dose rate versus low dose rate brachytherapy in treatment of cervix carcinoma  
F H Glaser, Halle/Saale, Germany
- 11.18 Bauer applicator for brachytherapy of endometrial carcinomas**  
**R Schulz-Wendtland, Erlangen, Germany**
- 11.22 Prostaglandin-induced cervical dilatation prior to intracavitary radiotherapy for cervix cancer  
K J Harrington, London
- 11.30 Locoregional intra-arterial chemoperfusion in invasive cervical cancer**  
**L Defreyne, Gent, Belgium**
- 11.38 Relative unresponsiveness of Krukenberg tumours to chemotherapy  
V M C Nicolson, Sutton
- 11.46 Selective uterine arterial infusion of cis-platinum for large cervical carcinoma prior to radiotherapy: a report with 5-year follow-up**  
**T Sekiya, Tokyo, Japan**
- 11.50 Prognostic factors of squamous cell carcinoma of the vagina  
S Dixit, Ahmedabad, India
- 11.58 End of session
- Charter Suite (10.45–11.58)*
- NUCLEAR MEDICINE II** [pp. 37–39]
- Chairman: Dr R J Burwood, Brighton
- 10.45 Radionuclide imaging of acute GI bleeding**  
*Invited review* **Dr P J Robinson, Leeds**
- 11.10 Is more always better? The value of early phase imaging in three-phase bone scintigraphy  
J J Bhattacharya, London
- 11.18 Normal three-phase bone scintigraphy in a child with a painful hip – does it reliably exclude disease?**  
**J J Bhattacharya, London**

MONDAY 23 MAY

- 11.22 Leg muscle scintigraphy with  $^{99}\text{Tc}^{\text{m}}$  MIBI and SPECT in the assessment of suspected compartment syndromes of the calf  
P A K Set, Cambridge
- 11.30 **Abnormal renal parenchymal uptake on bone scintigraphy: what is its significance and frequency?**  
A Sharma, London
- 11.38 The aetiology and distinguishing features of solitary spinal hot spots on planar bone scans  
F V Coakley, Leicester
- 11.46 **The role of planar and tomographic skeletal scintigraphy in the assessment of low back pain**  
P Kessar, London
- 11.50 The sternal "tie-sign" revisited  
A Sharma, London
- 11.54 **Calvarial uptake on bone scanning: an age related phenomenon?**  
A Sharma, London
- 11.58 End of session

## PLENARY LECTURE

*Royal Hall (12.15–1.15)***SILVANUS THOMPSON MEMORIAL LECTURE** [p. 40]**Multimodality image fusion: going from research to PACS**

Professor Andrew Todd-Pokropek, University of London

*Bramham Suite (12.15–1.15)* [pp. WIP 1–4]**WORK IN PROGRESS: ONCOLOGY**

Chairman: Dr R E Taylor, Leeds

*Royal Hall (2.15–3.53)***DIGITAL IMAGING** [pp. 41–43]

Chairman: Dr D Dance, London

2.15 **3D image visualization and analysis***Invited review* Professor M A Smith, Leeds2.40 Quantitative analysis of pulmonary aerosol deposition by SPECT and MRI  
P M Halson, Southampton2.48 **Three-dimensional registration of CT and SPECT brain images**  
W R Crum, Leeds

2.56 Digital X-ray imaging: present picture and future trends

*Invited review* Dr A R Cowen, Leeds3.21 **Processing and manipulation of pulmonary magnetic resonance imaging**  
S C Bolton, Leicester3.29 A new image processing and hardcopy system for computed radiography  
A G Davies, Leeds3.37 **Electrical bioimpedance imaging: topographo-functional approach to tumour diagnostics**

Y F Babich, Kiev, Ukraine

3.45 The effect of the fractal transform on radiological images

J P Y Lay, Manchester

3.53 End of session

*Ripley Suite (2.15–5.30)*

## TEACH-IN

**MRI OF THE SPINE** [p. 44]

Chairman &amp; Organizer: Dr D M Hadley, Glasgow

**Imaging strategies in the diagnosis of intramedullary and intradural neoplastic tumours***Invited review* Dr R Sigal, Villejuif, France

MRI of vertebral metastases: indications and technique

*Invited review* Dr D Vanel, Villejuif, France*Invited review* Dr I McCall, Oswestry*Invited review* Dr D M Hadley, Glasgow*Harewood Suite I (2.15–3.40)***MANAGEMENT AND AUDIT** [pp. 45–48]

Chairman: Dr J P Owen, Newcastle upon Tyne

2.15 **Utilization patterns resulting from self-referral in diagnostic imaging***Invited review* Dr D C Levin, Philadelphia, USA2.40 Information to patients before ERCP  
C L Kay, Manchester2.48 **Who looks at preoperative chest X-rays?**  
G D Walker, Bournemouth

2.56 Audit of the value of double reporting of MRI films

C J Wakeley, Bristol

3.04 **A study of out-of-hours interventional radiology**

J Flinn, Edinburgh

3.08 An audit of outcome following angiography in patients with peripheral vascular disease

A K Banerjee, London

## MONDAY 23 MAY

- 3.16 Swallowed foreign bodies – a radiation hazard?**  
**C Charlesworth, Harrow**
- 3.20 The use of intravenous contrast agents in “high risk” patients  
R Chinn, London
- 3.28 CT of acute pancreatitis: is administration of intravenous contrast media cost-effective?**  
**G W Boland, Boston, USA**
- 3.36 The post-angiocardigraphy urogram film in children – why it should be abandoned  
J R D Tuson, Oxford
- 3.40 End of session
- Harewood Suite II (2.15–3.48)*  
**GASTROINTESTINAL IMAGING** [pp. 49–52]  
Chairman: Professor G W Stevenson, Hamilton, Canada
- 2.15 The case for radiographers performing barium enemas**  
*Invited review* **Dr A Chapman, Leeds**
- 2.40 Ultrafast CT sialography: 3D reconstruction of the salivary duct system in parotid tumours  
D Szolar, Graz, Austria
- 2.48 The role of ultrasound in screening patients referred for sialography: a possible protocol**  
**M E Murray, London**
- 2.56 Role of ultrasound in the diagnosis and treatment of amoebic liver abscess  
K Shamsi, Edegem, Belgium
- 3.04 Low-reflectivity periportal collar on liver ultrasound**  
**S A Worthy, Newcastle upon Tyne**
- 3.12 Hepatic cavernous haemangioma: confidence evaluation in an incidental and an oncologic population  
K Shamsi, Edegem, Belgium
- 3.20 Hepatitis B cirrhosis: the evolution of ultrasound appearance and suggested grading of severity**  
**C Metreweli, Shatin, Hong Kong**
- 3.28 Ultrasound, CT and MRI findings of focal nodular hyperplasia of the liver  
K Shamsi, Edegem, Belgium
- 3.32 Transendoscopic miniprobe ultrasound of the biliary tract**  
**A Müller, London**
- 3.40 Ultrasound diagnosis of biliary strictures following orthotopic liver transplantation  
P D Britton, Cambridge
- 3.48 End of session
- Bramham Suite (2.15–3.43)*  
**MODERN CLINICAL ONCOLOGY: CARCINOMA OF THE BREAST, ETC**  
[pp. 53–57]  
Chairman: Professor C A Joslin, Leeds
- 2.15 A pilot study of ARCON in patients with locally advanced breast cancer**  
**K Pigott, Northwood**
- 2.23 An audit of breast radiation dosimetry using 3D dose distributions  
A J Neal, Sutton
- 2.31 Minimizing cardiac irradiation in breast radiotherapy**  
**C Coyle, Manchester**
- 2.39 Dosimetry of large parallel opposed irregular field treatments  
E M Donovan, Inverness
- 2.43 Oestrogen receptor expression in ductal carcinoma *in situ* and its radiological correlations**  
**A J Evans, Nottingham**
- 2.47 Regional breast chemotherapy – a new angiographic method  
D H A McCarter, Glasgow
- 2.51 Sonography as a means of monitoring response to regional chemotherapy in large inoperable breast tumours**  
**B Kelly, Glasgow**
- 2.55 Locally advanced breast carcinoma – a new selective angiographic technique of delivering regional breast chemotherapy  
D H A McCarter, Glasgow
- 2.59 Breast carcinoma: mammographic responses to neoadjuvant chemotherapy with pathological correlation**  
**S J Vinnicombe, Sutton**
- 3.07 Refractive CLL treated with Indium-114m-labelled lymphocytes  
R A Cowan, Manchester
- 3.15 2000 patients entered into the AXIS colorectal cancer trial**  
**S Stenning, Cambridge**
- 3.19 Radiological appearances of oat cell carcinoma of the oesophagus  
J D Hunter, Plymouth



MONDAY 23 MAY

**3.23 The association between the expression of the Nm23 metastasis suppressor gene and prognosis of 89 patients with sarcoma**

**M H Robinson, Sheffield**

3.31 Association of certain viruses with human oral and cervical cancer

T Vijayakumar, Trivandrum, India

**3.35 Chemotherapy of late hepatic carcinoma by mitomycin microcapsule embolism**

**Q-S Zhang, Nanjing, China**

3.39 Incidence of avascular necrosis of femoral head following chemotherapy for lymphoma using MRI

F J Gilbert, Aberdeen

3.43 End of session

*Charter Suite (2.15–3.49)*

**NUCLEAR MEDICINE III** [pp. 58–60]

Chairman: Dr D Cunningham, London

**2.15 Cudgel, carrot or crown? Accreditation in nuclear medicine**

*Invited review* **Dr R J Burwood, Brighton**

2.40 Risk assessment in diagnostic and therapeutic nuclear medicine

*Invited review* **Dr P J Mountford, Birmingham**

**3.05 Interpretation of the ventilation/perfusion lung scan – an historical perspective on a modern conundrum**

**D S Tarver, Southampton**

3.13 The impact of lung scintigraphy on the management of suspected pulmonary embolism

K A Lindsay, Leeds

**3.21 Evaluation of lung scan defects in patients with clinically suspected pulmonary embolism**

**R F Wang, Fuzhou, China**

3.25 Value and limitations of commercial software for ventilation/perfusion analysis

D Sobic-Saranovic, Belgrade, Serbia

**3.29 The role of ventilation/perfusion scanning in identifying the appropriate lung for single lung transplantation**

**M C Pearson, London**

3.37 Patient waiting area doses and occupancy in a nuclear medicine department

A S K Dzik-Jurasz, London

**3.41 The construction of a standard reference for methionine PET using a computerized brain atlas**

**C A J Romanowski, Stockholm, Sweden**

3.49 End of session

**PLENARY LECTURE**

*Royal Hall (4.15–5.30)*

**PRESIDENTIAL ADDRESS** [No abstract]

**Technology through the looking glass**

Elizabeth Beckmann, Lanmark, Beaconsfield

*Harewood Suite I (4.15–4.55)*

**VASCULAR ULTRASOUND** [pp. 61–62]

Chairman: Dr W R Lees, London

**4.15 A comparison of angiography and intravascular ultrasound in the detection of peripheral atherosclerosis**

**A N S Deaner, Leeds**

4.23 Does colour flow Doppler imaging have a role in the assessment of lower limb vasculature following percutaneous transluminal angioplasty?

G J M Goh, Runcorn

**4.31 The laryngeal mask – does it affect carotid blood flow?**

**F L Flanagan, Dublin**

4.39 The fate of the long saphenous vein in patients undergoing saphenofemoral disconnection and multiple phlebectomies

M C de Nunzio, Nottingham

**4.47 The incidence of jugular venous thrombosis in post-operative patients with jugular venous catheters**

**B J Lewandowski, Ottawa, Canada**

4.55 End of session

*Harewood Suite II (4.15–5.30)* [pp. WIP 5–7]

**WORK IN PROGRESS: CLINICAL PROJECTS**

Chairman: Dr H L MacDonald, Edinburgh

*Bramham Suite (4.15–5.37)*

**MODERN RADIOTHERAPY: PAEDIATRICS & UROLOGY** [pp. 63–65]

Chairman: Dr W G Jones, Leeds

**4.15 The current management of paediatric brain tumours**

*Invited review* **Dr R E Taylor, Leeds**

4.40 Quality assurance in craniospinal irradiation

J Owens, Leeds

- 4.44 **Imaging features of malignant rhabdoid tumour of the brain**  
**M Hardjasudarma, Shreveport, USA**
- 4.48 Non-viral progressive multifocal leukoencephalopathy and cerebral sinus thrombosis: treatment related complications in lymphomas and non-Hodgkin's lymphomas of childhood  
**W Küker, Aachen, Germany**
- 4.52 **Tumour doses in targeted mIBG therapy**  
**M Tristam, Southampton**
- 5.00 Palliative therapy of urologic cancer  
*Invited review* **Professor S D Fosså, Oslo, Norway**
- 5.25 **Treatment outcome and prognostic factors in spinal cord compression due to prostate carcinoma**  
**R A Huddart, Sutton**
- 5.33 TRUS imaging score, log PSA/volume and digital rectal examination as predictors for prostate cancer  
**F M Witham, London**
- 5.37 End of session

**END OF MONDAY'S SESSIONS**

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**MONDAY 23 MAY / TUESDAY 24 MAY**

**TUESDAY 24 MAY**

*Royal Hall (9.00–10.17)*

**ONCOLOGY IMAGING I [pp. 67–69]**

Chairman: Dr S J Golding, Oxford

**9.00 Decision making in diagnostic oncology**

*Invited review* **Dr J A Spencer, Leeds**

- 9.25 Causes of delay in the diagnosis and treatment of spinal cord and cauda equina compression  
**D M Ritchie, Sheffield**

**9.33 MRI in differentiating benign from malignant soft tissue masses of the extremities**

**L Poleksic, Belgrade, Serbia**

- 9.41 MRI evaluation of the response of tumour perfusion to radiotherapy  
**J Gerber, Northwood**

**9.45 Rapid acquisition MRI of interstitial laser photocoagulation of *in vivo* rat liver: an imaging-pathological correlation**

**H R S Roberts, London**

- 9.53 MRI of squamous cell carcinoma of the oral cavity  
**R S D Campbell, Newcastle upon Tyne**

**10.01 Evaluation of fast STIR MR imaging in the assessment of oropharyngeal cancer**

**R S Davies, Liverpool**

- 10.09 MR imaging of pharyngeal neoplasms with fast and ultrafast sequences: comparison of CT and MRI  
**P Held, Regensburg, Germany**

- 10.17 End of session

*Ripley Suite (9.00–10.21)*

**ADVANCES IN MRI [pp. 70–72]**

Chairman: Dr P Goddard, Bristol

**9.00 New insights from MR: functional brain imaging**

*Invited review* **Professor B S Worthington, Nottingham**

**CARDIOVASCULAR MRI**

- 9.25 FASTCARD: preliminary results of a fast cardiac imaging sequence  
**P I Ignatus, London**

**9.33 3D reconstruction from MR images in complex congenital heart disease**  
**U M Sivananthan, Leeds**

TUESDAY 24 MAY

- 9.41 Hypertrophic cardiomyopathy: assessment by echocardiography and magnetic resonance imaging at 1.5 Tesla  
A Devlin, Oxford
- 9.49 **MRI of postoperative complications of the thoracic aorta**  
**P Murphy, Bristol**
- 9.57 Pulmonary angiography and direct imaging of embolus using breath-hold magnetic resonance imaging  
A Moody, Leicester
- 10.05 **To MRA or TFA? a comparison of magnetic resonance angiography, angiography and duplex ultrasound of the peripheral arteries**  
**P Murphy, Bristol**
- 10.13 Magnetic resonance angiography of the carotid bifurcation compared with Doppler ultrasound  
J M Hawnaur, Manchester
- 10.21 End of session

*Harewood Suite I (9.00–10.14)***TECHNIQUES IN MUSCULOSKELETAL IMAGING** [pp. 73–74]

Chairman: Dr I McCall, Oswestry

- 9.00 **The value of bone scans in benign bone disease**

*Invited review* Dr S E M Clarke, London

- 9.25 Imaging of ligament in tendon of the ankle and foot

*Invited review* Dr W Gibbon, Leeds

- 9.50 **A new non-invasive technique to predict the risk of neuropathic foot ulceration**  
**J P Coffey, Manchester**

- 9.54 Is a normal MRI scan in the presence of a palpable soft tissue mass enough?  
M J Thornton, Bristol

- 10.02 **The comparison of CT and MR images in suspected sacroiliitis**  
**C Wittram, Liverpool**

- 10.10 MRI and CT in macromelia and macrodactyly  
H F D'Costa, Plymouth

- 10.14 End of session

*Harewood Suite II (9.00–10.21)***PAEDIATRIC AND ANTENATAL IMAGING** [pp. 75–77]

Chairman: Dr D Pilling, Liverpool

- 9.00 **Chest infection revisited**

*Invited review* Dr H Carty, Liverpool

- 9.25 Mesenteric lymphadenitis in children  
C Metreweli, Shatin, Hong Kong

- 9.33 **The swollen leg and primary lymphoedema in childhood**  
**N B Wright, Liverpool**

- 9.37 The antenatal ultrasound diagnosis of anterior abdominal wall defects and subsequent outcome: the Northern Region experience

E Dillon, Stockton on Tees

- 9.45 **Fetal echogenic lung lesions**  
**S J King, Liverpool**

- 9.53 The value of antenatally diagnosed renal pelvic dilatation in the prediction of urinary tract pathology

G Walsh, Plymouth

- 10.01 **Accurate *in utero* fetal weight estimation using EPI**

**B S Worthington, Nottingham**

- 10.09 Investigation of intrauterine growth retardation using EPI

B S Worthington, Nottingham

- 10.17 **Sonographic features of Hashimoto thyroiditis in the paediatric age group**  
**P A K Set, Cambridge**

- 10.21 End of session

*Bramham Suite (9.00–10.14)***RADIATION PROTECTION I** [pp. 78–80]

Chairman: Dr K Faulkner, Newcastle upon Tyne

- 9.00 **Recent developments in ICRP**

*Invited review* Professor R H Clarke, Chilton

- 9.25 The implications of ICRP 60 in GIT fluoroscopy  
A Quinn, Dublin

- 9.33 **Patient protection audit in diagnostic radiology**

*Invited review* Mr B F Wall, Chilton

- 9.58 An assessment of staff doses in cardiac angiography  
A McGee, Dublin

- 10.02 **Investigation into the routine method of assessing automatic exposure control devices**

**K L Smart, Bristol**

## TUESDAY 24 MAY

- 10.06 Radiation dose and image quality in two chest radiography techniques  
D J Manning, London
- 10.10 **A comparison of operator dependent factors in barium meals when using conventional radiography versus 100mm photofluorography**  
A S K Dzik-Jurasz, London
- 10.14 End of session

*Charter Suite (9.00–12.00)*

## SYMPOSIUM

**MOLECULAR GENETICS AND CANCER BIOLOGY** [pp. 81–82]

Chairman &amp; Organizer: Professor G E Adams, Didcot

**Clinical and molecular genetics of breast and ovarian cancer***Invited review* Professor B Ponder, Cambridge

The p53 suppressor gene

*Invited review* Professor D P Lane, Dundee**Radiation oncogenesis – mechanisms and genetics***Invited review* Dr R Cox, Chilton

The induction of genetic instability by ionising radiation

*Invited review* Dr E G Wright, Chilton*Royal Hall (10.45–12.02)***ONCOLOGY IMAGING II** [pp. 83–85]

Chairman: Dr R A Nakielny, Sheffield

**10.45 Staging renal cell carcinoma - update 1994***Invited review* Professor B L McClennan, St Louis, USA

11.10 CT criteria for partial nephrectomy in Wilm's tumour following preoperative chemotherapy

C M Owens, Toronto, Canada

11.18 **Work in progress: staging of cervical carcinoma by high field MRI with an endorectal surface coil**

K W Preidler, Graz, Austria

11.26 Patterns of supradiaphragmatic metastatic disease in patients with testicular germ cell tumours

A Wood, Southampton

11.30 **High field MRI of early prostatic cancer with an endorectal surface coil**

K W Preidler, Graz, Austria

11.38 Transrectal ultrasound in follow-up of patients receiving radical radiotherapy for prostate cancer

A M Watson, Nottingham

11.46 **CT evaluation of treatment response in gastric cancer**

V W K Ng, Sutton

11.54 The role of computed tomography in the management of patients with cutaneous T-cell lymphoma

D C Howlett, London

12.02 End of session

*Ripley Suite (10.45–12.06)***INTERVENTIONAL RADIOLOGY** [pp. 86–88]

Chairman: Professor G Whitehouse, Liverpool

**10.45 Interventional radiology in the management of benign biliary strictures***Invited review* Professor A Adam, London

11.10 Expandable metal stents in patients with benign biliary disease

P Sanville, Manchester

11.18 **Significance and management of coincidental calculi found distal to duct tumours at percutaneous biliary stenting**

D M Nichols, Inverness

11.22 The role of percutaneous cholecystolithotomy in the era of laparoscopic cholecystectomy

R A Morgan, Galveston, USA

11.30 **Drainage of the postoperative left subphrenic abscess: is a transpleural approach contra-indicated?**

M M J McNicholas, Boston, USA

11.38 Pancreatic necrosis: role of percutaneous drainage

R A Morgan, Galveston, USA

11.46 **Thoracic complications of intercostal percutaneous nephrolithotomy**

J Richenberg, London

11.50 Ureteric stricture disease – a new treatment with permanent metal stents

D Rickards, London

11.58 **Metal stents for treatment of benign ureteral strictures: mid-term follow-up**

R A Morgan, Galveston, USA

12.06 End of session

TUESDAY 24 MAY

*Harewood Suite I (10.45–12.06)***MUSCULOSKELETAL IMAGING** [pp. 89–92]

Chairman: Dr P Butt, Leeds

**10.45 Magnetic resonance of synovial disease***Invited review* Dr V Jevtic, Ljubljana, Slovenia

11.10 Enlarged iliopsoas bursae in the presence of a normal hip radiograph: imaging of seven cases

F L Flanagan, Dublin

**11.14 MRI of the femoral intercondylar notch width index**

J C Hacking, Cambridge

11.18 Transcutaneous electric nerve stimulation during distension shoulder arthrography: a controlled trial

B Morgan, Leicester

**11.26 An ultrasound technique for measuring the coracoclavicular distance of the shoulder**

V A Sluming, Liverpool

11.34 A comparison of hand-held versus suspended weight for stress examination of the acromioclavicular joint

V A Sluming, Liverpool

**11.38 Prone oblique CT arthrography of the shoulder: a new position**

P N Turner, Leeds

11.42 The use of double contrast CT arthrography in the diagnosis of anterior knee pain

G J M Goh, Liverpool

**11.46 MRI diagnosis of partial tears of the ACL of the knee**

J A L Lawrance, Oxford

11.54 The os trigonum – an interesting little bone

C Charlesworth, Harrow

**11.58 The radiology of recessive dystrophic epidermolysis bullosa**

A J Hails, London

12.02 Osteomatous jaw lesions in patients with familial adenomatous polyposis coli

G M Danesini, Milan, Italy

12.06 End of session

*Harewood Suite II (10.45–12.27)***MANAGEMENT** [pp. 93–95]

Chairman: Dr A Carty, Liverpool

**10.45 Performance of radiology by non-radiologists: cost and quality issues***Invited review* Dr D C Levin, Philadelphia, USA

11.10 Reporting of accident and emergency radiographs by radiographers: a study to determine the effectiveness of a training programme

C F Loughran, Macclesfield

**11.18 Educational seminars for GPs – what happens – are they worth it?**

A R Paes, Huddersfield

11.26 Going your own way: an independent PC-based computerized management system for radiological subspecialties

A Coulthard, Newcastle upon Tyne

**11.30 Electronic data interchange in radiology**

P J Robinson, Leeds

11.38 Provision of scientific services in the reorganized NHS

P P Dendy, Cambridge

**11.46 How to integrate an X-ray department (or how not to?)**

N Hudson, Leicester

11.54 Introducing confidence in abstracts

N J A Cozens, Edinburgh

**12.02 Facilitating the purchase of diagnostic and medical equipment***Invited review* Mr G A McCormack, Manchester

12.27 End of session

*Bramham Suite (10.45–12.00)***RADIATION PROTECTION II** [pp. 96–98]

Chairman: Dr R A Shields, Manchester

**10.45 Patient dosimetry: some practical considerations in an NHS region***Invited review* Dr R M Harrison, Newcastle upon Tyne

11.10 Early results and implications from applying the national patient dosimetry protocol in a large teaching hospital

L P Readman, Manchester

**11.18 Conclusions from a three year dosimetry programme**

H Warren-Forward, Birmingham

11.26 Survey of neonatal radiographic practice in the UK

A J Hunt, Poole

**11.32 An audit of patient dosimetry in digital and conventional barium suites**

J D Hunter, Plymouth

11.36 Radiation doses to patients from small bowel enema examinations

D Hart, Didcot

## TUESDAY 24 MAY

- 11.40 A study of equipment related contributions to radiation doses from barium meal and barium enema examinations**  
C J Martin, Aberdeen
- 11.48 Organ dose assessment for bronchiectasis and interstitial lung patients imaged with an Imatron CT scanner  
M C Young, London
- 11.52 How far can we reduce the radiation dose in paranasal sinus CT?**  
I Zammit-Maempel, Newcastle upon Tyne
- 12.00 End of session
- PLENARY LECTURE**

*Royal Hall (12.15–1.15)*  
**MACKENZIE DAVIDSON MEMORIAL LECTURE** [p. 99]  
**Imaging of treated cancer**  
Dr Janet Husband, Royal Marsden Hospital, Sutton
- Harewood Suite II (12.15–1.15)* [pp. WIP 8–10]  
**WORK IN PROGRESS: TECHNICAL PROJECTS**  
Chairman: Dr T F El-Sayed, Watford
- Royal Hall (2.15–3.48)*  
**ONCOLOGY IMAGING III** [pp. 100–103]  
Chairman: Dr A G Robertson, Glasgow
- 2.15 Role of radiology in prevention and detection of colon cancer**  
*Invited review* Dr G W Stevenson, Hamilton, Canada
- 2.40 The use of the Nitinol ultraflex oesophageal prosthesis in the management of complicated malignant dysphagia  
D A Nicholson, Salford
- 2.44 Normal mediastinal lymph node size in an Asian population**  
J G Murray, Harrow
- 2.48 Management of dysphagia using the Strecker oesophageal stent  
A Grundy, London
- 2.56 Ultrasonic assessment of hemidiaphragmatic excursion in the staging of bronchial carcinoma; comparison with CT and mediastinoscopy**  
J G Houston, Glasgow
- 3.00 Spiral CT imaging of the pulmonary hila in lung cancer: role of multiplanar display in patient management  
A R Padhani, Baltimore, USA
- 3.08 The role of magnetic resonance imaging and cine MRI in bronchial carcinoma – a comparative study**  
C A Roobottom, Bristol
- 3.16 Non-treatment of large hydro-pneumothoraces after therapeutic thoracentesis for malignant disease: recognition of a new entity  
M M J McNicholas, Boston, USA
- 3.20 Ultrasound-guided placement of small-bore catheters for drainage and sclerotherapy of malignant pleural effusions**  
B J Lewandowski, Ottawa, Canada
- 3.28 The effect of spiral CT pitch on the detectability of lung metastases  
D A Collie, Edinburgh
- 3.36 Multiple cavitating lung lesions in non-Hodgkin's lymphoma**  
S A Jackson, Southampton
- 3.40 Normal pelvic lymph nodes: documentation by CT scanning after bipedal lymphangiography  
S J Vinnicombe, Sutton
- 3.48 End of session
- Ripley Suite (2.15–3.48)*  
**MR TECHNOLOGY** [pp. 104–107]  
Chairman: Professor B Worthington, Nottingham
- 2.15 Tissue-specific contrast agents for MRI**  
*Invited review* Dr H-J Weinmann, Berlin, Germany
- 2.40 Contrast-enhanced MR imaging of experimentally induced liver abscess using a new Gd-complex as MR contrast agent  
G Schneider, Homburg/Saar, Germany
- 2.48 Contrast-enhanced MR imaging of experimentally induced acute pancreatitis using Mn BP-DTTA as MR contrast agent**  
K Urbschat, Homburg/Saar, Germany
- 2.52 Use of a superparamagnetic iron oxide contrast agent in MRI of focal liver lesions  
P M Taylor, Manchester
- 3.00 Modelling and experimental results for tissue response to temperature in MRI using magnetization transfer sequences**  
I R Young, London

TUESDAY 24 MAY

- 3.08 A radiofrequency EPR spectrometer for medical imaging  
G R Cherryman, Leicester
- 3.12 Automatic segmentation of MR images**  
**K Naidu, Edinburgh**
- 3.20 Functional MRI at 1 Tesla  
C Santosh, Edinburgh
- 3.24 Binomial composite pulses in chemical shift and magnetization transfer contrast imaging**  
**X P Zhu, Manchester**
- 3.32 New steady-state 3D sequence for MR imaging of the knee joint: clinical results  
S K Bajaj, Muenster/Westfalen, Germany
- 3.40 A novel U-shaped radiofrequency coil for high-resolution magnetic resonance imaging of metacarpophalangeal joint arthropathies**  
**W Vennart, Exeter**
- 3.48 End of session
- Harewood Suite I (2.15–3.48)*  
**CHEST IMAGING** [pp. 108–111]  
Chairman: Dr R Robertson, Leeds
- 2.15 A multimodality approach to diagnostic imaging in pulmonary embolism**  
*Invited review* **Professor P O Alderson, New York, USA**
- 2.40 The role of computed tomography and fibroptic bronchoscopy in the evaluation of haemoptysis. A comparative study  
P A K Set, Cambridge
- 2.48 Colour Doppler sonography in the evaluation of pulmonary lesions**  
**A D Tasker, Oxford**
- 2.56 Leiomyosarcoma of the pulmonary artery  
H M Shannon, Edinburgh
- 3.00 CT-guided needle biopsies of pulmonary lesions: sensitivity, specificity and typing accuracy in 315 cases**  
**S Biesterfeld, Aachen, Germany**
- 3.08 HRCT of bronchiectasis: the significance of low attenuation areas  
J C Litherland, Manchester
- 3.16 Aspergillus infection of the respiratory tract in patients with lung transplantation**  
**S Diederich, Cambridge**
- 3.24 The differential diagnosis and discriminatory features of circumferential pleural rind on computed tomography  
A P Richards, Leeds
- 3.28 Asymmetrical film screen combinations – a new light on the chest?**  
**C Smith, Leicester**
- 3.32 Comparison of a new asymmetric film screen combination with conventional film in ITU chest radiography  
D Kessel, London
- 3.40 The role of cine magnetic imaging in the thorax**  
**C A Roobottom, Bristol**
- 3.48 End of session
- Harewood Suite II (2.15–3.59)*  
**INTERVENTIONAL RADIOLOGY** [pp. 112–117]  
Chairman: Dr D M Nichols, Inverness
- 2.15 Percutaneous drainage of mediastinal abscesses and fluid collections**  
**R A Morgan, Galveston, USA**
- 2.23 Transgluteal drainage of pelvic fluid collections: a traditional and effective alternative to newer percutaneous transvaginal and transrectal approaches  
G W Boland, Boston, USA
- 2.31 Percutaneous biopsy of gastric lesions**  
**C Jones, Stoke-on-Trent**
- 2.35 Ultrasound-guided renal biopsy – closing the audit loop, and a caveat**  
N J A Cozens, Edinburgh
- 2.43 Laser guidance system for CT-guided procedures**  
**Y Miaux, Paris, France**
- 2.51 CT-guided percutaneous needle biopsies – contribution to histological diagnosis  
G Walsh, Plymouth
- 2.55 Percutaneous biopsy of osteolytic skull base lesions**  
**J Straiton, Leeds**
- 2.59 Coronary angioplasty using 6 F guiding catheters  
M R Rees, Stoke-on-Trent
- 3.07 Eye splashes during invasive radiological procedures**  
**I R Davidson, Nottingham**
- 3.11 Resection of retained valve cusps in an in situ vein graft with the Simpson Atherocath  
J Walker, Edinburgh

## TUESDAY 24 MAY

- 3.15 **Myocardial ischaemia during peripheral angioplasty: association with hypertension and hypoxaemia**  
F L Clarke, Sheffield
- 3.23 Use of the Simpson's atherectomy catheter for treatment of a prolapsed intimal flap raised after angioplasty  
D E Roberts, Liverpool
- 3.27 **Arteriovenous fistulae occurring after renal transplantation kidney biopsy: treatment**  
D W White, Liverpool
- 3.31 Percutaneous angioplasty of dialysis fistulae to maintain vascular access  
S Gurney, Manchester
- 3.39 **Pelvic arterial embolization following hysterectomy and bilateral internal iliac artery ligation for intractable primary post-partum haemorrhage**  
C D Collins, London
- 3.43 Transjugular intrahepatic porto-systemic shunts: results after two years  
J D G Rose, Newcastle upon Tyne
- 3.51 **Percutaneous aspiration thrombo-embolectomy: a preliminary experience**  
J G Murray, Harrow
- 3.59 End of session
- Bramham Suite (2.15–3.36)*
- BODY COMPOSITION AND TISSUE CHARACTERIZATION** [pp. 118–120]  
Chairman: Professor M A Smith, Leeds
- 2.15 **Bone densitometry: use and misuse**  
*Invited review* Dr S Pors Nielsen, Hillerød, Denmark
- 2.40 Validation of a technique to measure hand bone mass using DXA  
J Lilley, Birmingham
- 2.48 **The *in vivo* measurement of bone aluminium by neutron activation analysis**  
J Evans, Birmingham
- 2.56 Measurement of body composition using dual energy X-ray absorptiometry: comparison with total body potassium, skinfold anthropometry and bioelectrical impedance in health and disease  
M A Smith, Leeds
- 3.04 **MR texture analysis**  
D W M Boyce, London
- 3.12 Application of Hankel singular value decomposition to *in vivo* localized H1 spectra from patients with schizophrenia  
J MacEnri, Dublin
- 3.20 **Quantification of the human quadriceps muscle using MRI and stereological image analysis techniques**  
J M Walton, Liverpool
- 3.28 Comparison of ultrasound and MRI in the quantification of the quadriceps muscle by stereology  
J M Walton, Liverpool
- 3.36 End of session
- Charter Suite (2.15–3.56)*
- RADIOBIOLOGY: PHOTODYNAMIC THERAPY** [pp. 121–125]  
Chairman: Professor S Brown, Leeds
- 2.15 **Photodynamic therapy**  
*Invited review* Dr F A Stewart, Amsterdam, The Netherlands
- 2.40 Preclinical evaluation of R and S isomers of RB6145, a hypoxic cell radiosensitizer and cytotoxin  
S Cole, Didcot
- 2.48 **Can MRS be used for determining the optimum time for treatment of tumours with PDT combined with bioreductive drugs?**  
J C M Bremner, Didcot
- 2.56 Light delivery and dosimetry in photodynamic therapy  
E J Hudson, Leeds
- 3.04 **Interstitial laser photocoagulation of liver metastases: five years' experience**  
C M Allen, London
- 3.12 Angiogenesis in breast tumour – pre-pathological diagnosis using functional dynamic imaging  
F L Flanagan, Dublin
- 3.20 **Collaborative Phase III hyperthermia trial**  
C C Vernon, London
- 3.28 The effects of restriction endonucleases on mammalian cells of different radiosensitivity  
C M L West, Manchester
- 3.36 **C-raf-1 proto-oncogene expression relates to intrinsic sensitivity to irradiation but not cis-platinum**  
H M Warenus, Liverpool



TUESDAY 24 MAY

- 3.40 Morbidity of children whose grandparents had been subjected to occupational radiation exposure  
N P Petrushkina, Chelyabinsk, Russia
- 3.48 **Serum uric acid level and hyperuraemia in workers exposed to chronic gamma irradiation**  
V I Telnov, Chelyabinsk, Russia
- 3.52 Inactivation of *Escherichia coli* by technetium-99m: Auger electron influence  
A Caldeira de Araújo, Rio de Janeiro, Brazil
- 3.56 End of session

*Royal Hall (4.15–5.21)***ONCOLOGY IMAGING IV** [pp. 126–127]

Chairman: Dr S J Golding, Oxford

- 4.15 **The subperitoneal conduits revisited in oncological imaging**  
*Invited review* Professor P F G M van Waes, Utrecht, The Netherlands

- 4.40 Pneumothorax during angiographic Hickman line insertion in patients with malignant disease  
K J Harrington, London
- 4.44 **Ultrasound-guided biopsy of suspected primary soft tissue tumours: does it have a role?**  
W Kincaid, Glasgow
- 4.52 Early experience with intravascular stents in the palliative management of superior vena cava obstruction syndrome  
C B Loughrey, Belfast
- 4.56 **Imaging of malignant neoplasms of the oral cavity**  
*Invited review* Dr R Sigal, Villejuif, France
- 5.21 End of session

*Harewood Suite I (4.15–5.30)***FILM VIEWING** [No abstract]

Organizer: Professor J Weir, Aberdeen  
Panel: Professor A P Hemingway, London  
Professor A Adam, London  
Dr V Cassar-Pullicino, Oswestry  
Professor P O Alderson, New York, USA

*Harewood Suite II (4.15–5.32)***CONTRAST MEDIA AND GENITOURINARY IMAGING** [pp. 128–131]

Chairman: Dr D Rickards, London

- 4.15 **Contrast media reactions: recognitions and response**  
*Invited review* Professor B L McClelland, St Louis, USA
- 4.40 Ten questions on the renal effects of water-soluble contrast media  
S K Morcos, Sheffield
- 4.44 **Do we still take too many films? Auditing intravenous urography**  
N J A Cozens, Edinburgh
- 4.52 Can radiologists manage reactions to intravascular contrast?  
P W G Brown, Sheffield
- 5.00 **Intravenous contrast media reactions: how do radiologists react?**  
F Parrish, Newcastle upon Tyne
- 5.08 How reliable are ultrasound measurements of renal length in adults?  
M Ablett, Newcastle upon Tyne
- 5.12 **Atypical sonographic appearances of angiomyolipoma**  
D M A Jackson, London
- 5.16 Radiological signs in Von Hippel-Lindau disease  
H C Burrell, Nottingham
- 5.20 **Computed tomographic and magnetic resonance evaluation of xantho-granulomatous pyelonephritis**  
D A Scullion, London
- 5.24 10-year follow-up of a cohort of adult patients with chronic pyelonephritis  
J P Owen, Newcastle upon Tyne
- 5.32 End of session

*Charter Suite (4.15–5.30)***TEACH-IN****MEDICAL GENETICS** [p. 132]

Chairman & Organizer: Dr R H Corbett, East Kilbride  
**Medical genetics in diagnostic radiology**  
*Invited review* Professor J M Connor, Glasgow  
**Medical genetics in oncology**  
*Invited review* Professor M Steel, St Andrews

END OF TUESDAY'S SESSIONS

WEDNESDAY 25 MAY

## WEDNESDAY 25 MAY

Royal Hall (9.00–10.29)

## ADVANCES IN CT AND BODY IMAGING

[pp. 133–136]

Chairman: Dr A Dixon, Cambridge

- 9.00** The impact of spiral CT in oncological imaging  
*Invited review* Professor P F G M van Waes, Utrecht, The Netherlands
- 9.25 Spiral CT angiography in the preoperative assessment of abdominal aortic aneurysm  
J M Ferguson, Edinburgh
- 9.33** The imaging of spontaneous internal carotid artery dissections: ultrasound, angiographic and dynamic spiral CT appearances  
P S Sidhu, London
- 9.37 Spiral CT angiography: initial clinical experience  
A R Padhani, London
- 9.41** Dynamic CT perfusion imaging of the transplanted liver  
R Sinnatamby, Cambridge
- 9.49 CT perfusion imaging of the human pancreas  
K A Miles, Cambridge
- 9.53** Dynamic CT perfusion imaging of the brain: iodine or xenon?  
R Sinnatamby, Cambridge
- 10.01 Can volumetric CT offer a routine alternative to conventional scanning techniques?  
A G Chalmers, Leeds
- 10.09** Use of spiral CT and 3D reconstruction in the preoperative diagnosis of scoliosis  
Th Lange, Muenster/Westfalen, Germany
- 10.17 Comparison of inspiratory PA radiograph and spiral CT in assessing percentage pneumothorax size  
A Lopez, London
- 10.25** How useful is CT scanning of the orbits and brain in the investigation of optic disc swelling?  
A K Banerjee, London
- 10.29 End of session

Harewood Suites I/II (9.00–12.00)

## WORKSHOP

## INTERVENTIONAL RADIOLOGY [pp. 137–138]

Chairman &amp; Organizer: Dr G Plant, Basingstoke under the aegis of the BSIR

- Vascular stents**  
*Invited review* Dr P A Gaines, Sheffield
- Biliary intervention**  
*Invited review* Dr D F Martin, Manchester
- The idiots guide to ..... thrombolysis**  
*Invited review* Dr G Plant, Basingstoke

Ripley Suite (9.00–10.21)

## ULTRASOUND [pp. 139–142]

Chairman: Dr W Hately, London

- 9.00** What is ultrasound quality? Who needs it?  
*Invited review* Dr J A Evans, Leeds
- 9.25 Ultrasound exposure and heating  
F A Duck, Bath
- 9.33** Colour Doppler imaging: how useful is it and why?  
G T Rottenberg, London
- 9.41 Correlation between duplex Doppler ultrasonography and dynamic infusion cavernosography and cavernosometry in the diagnosis of venous leak  
B J Lewandowski, Ottawa, Canada
- 9.45** Quantitative correlation between the penile Doppler study, intracavernosal pressure and pharmacocavernometric values  
U Patel, London
- 9.49 Assessment by Doppler ultrasound of early acute rejection following adult liver transplant  
A W Mitchell, London
- 9.57** "Power Doppler": evaluation of a new method of colour Doppler sonography  
R O Bude, Ann Arbor, USA
- 10.05 *In vivo* biochemical correlates of pulse-wave velocity aortic distensibility measurements using Doppler ultrasound  
E D Lehmann, London
- 10.13** Transrectal ultrasound imaging of rectal veins and varices  
S H Lee, Manchester
- 10.21 End of session

*Bramham Suite (9.00–10.30)*

**NEURORADIOLOGY** [pp. 143–145]

Chairman: Dr J Straiton, Leeds

- 9.00 MR of the thalamus**  
*Invited review* Dr R Sigal, Villejuif, France
- 9.25 Assessment of morphological variation of the normal pituitary gland and its effect on volume  
S A Sukumar, Manchester
- 9.33 Negative brain MRI in patients with multiple sclerosis: what should we do next?**  
D B Stafford Johnson, Dublin
- 9.37 Structured reporting of MRI of the head in HIV  
G H du Boulay, London
- 9.45 Intelligent tutoring for MR image interpretation and the diagnosis of cerebral disease**  
N P Jeffery, Leicester
- 9.49 The application of quantitative magnetic resonance techniques in patients with schizophrenia  
P McGilligan, Dublin
- 9.57 <sup>1</sup>H MRS in supratentorial arteriovenous malformations**  
P McGilligan, Dublin
- 10.05 The value of dynamic MR imaging of pituitary tumours  
*Invited review* Professor M Takahashi, Honjo, Japan
- 10.30 End of session

*Charter Suite (9.00–12.00)*

**WORKSHOP**

**QUALITY ASSURANCE IN RADIOTHERAPY TREATMENT PLANNING: THEORY AND PRACTICE** [p. 146]

Organizers: Dr A M Crellin & Mr B Stubbs, Leeds

Chairman: Mr B Stubbs, Leeds

- 9.00 Introduction**  
Dr A M Crellin, Leeds
- 9.05 The control of treatment planning data within a quality system  
*Invited review* Dr J E Marrs, Manchester
- 9.25 QA of computer planning systems**  
*Invited review* Dr J E Shaw, Bebington
- 9.55 CHART QA results  
*Invited review* Dr E G Aird, Northwood
- 10.25 Coffee

Continued..

- 10.45 Dose specification and QA**  
*Invited review* Dr J Dobbs, London
- 11.15 Outlining alternatives  
*Invited review* Dr J Povall, Leeds
- 11.25 Breast planning**  
*Invited review* Dr A M Crellin, Leeds
- 11.35 Head and neck planning  
*Invited review* Dr A Morgan, Leeds
- 11.45 Discussion and end of session

*Royal Hall (10.45–12.06)*

**TRAUMA** [pp. 147–149]

Chairman: Dr S Hankey, Harrogate

- 10.45 Emergency radiology in the 90s: challenges in practice and education**  
*Invited review* Professor P O Alderson, New York, USA
- 11.10 Skull radiography in acute trauma – how many projections are necessary to detect vault fractures?  
R J Etherington, Chester
- 11.14 Fatigue fractures of long bones of the lower limb: MRI appearances and comparison with CT**  
P N M Tyrrell, Birmingham
- 11.18 Pelvic insufficiency fractures  
G Walsh, Plymouth
- 11.22 The role of computed tomography in calcaneal fractures**  
D E Roberts, Swansea
- 11.30 Computerized tomographic classifications of calcaneal fractures: reproducibility and reliability  
Q W Arafat, Birmingham
- 11.38 Secondary signs of anterior cruciate tears at MRI**  
J C Hacking, Cambridge
- 11.46 MR imaging of normal ankle ligaments – comparison of 2D SE and 3D SPGR acquisitions at 0.5 T  
A K Jain, Manchester
- 11.50 MRI diagnosis of acetabular labral tears: correlation with conventional arthrography**  
K H Lakin, Oxford
- 11.58 MRI in complex orbital trauma  
J Kabala, Bristol
- 12.06 End of session

## WEDNESDAY 25 MAY

Ripley Suite (10.45–12.00)

## TEACH-IN

**HIGH RESOLUTION CT OF THE CHEST** [p. 150]

Chairman: Professor J Weir, Aberdeen

Organizers &amp; speakers: Dr C D R Flower, Cambridge &amp; Dr F Gleeson, Oxford

**The role of high resolution computed tomography in the management of diffuse infiltrative lung disease**

Bramham Suite (10.45–12.11)

**RADIOLOGICAL HISTORY** [pp. 151–153]

Chairman: Professor I Isherwood, Manchester

10.45 **A history of the early years of radiotherapy with emphasis on X-ray and radium apparatus***Invited review* **Dr R F Mould, Croydon**

11.10 The work of the Deutsches Röntgen-Museum

*Invited review* **Dr U Hennig, Remscheid-Lennep, Germany**11.35 **The BMUS Historical Collection: why, what, which, where, who, when**  
**J E E Fleming, Glasgow**11.39 The new photography: photographic contributions to the early development of diagnostic radiology  
**J M Guy, Newtown**11.47 **A brief history of gastrointestinal imaging**  
**A K Banerjee, London**11.55 Groby Road Hospital – a celebration  
**R Keal, Leicester**12.03 **Dr S Gilbert Scott and wide field therapy**  
**A M K Thomas, Bromley**

12.11 End of session

## PLENARY LECTURE

Royal Hall (12.15–1.15)

**3M MAYNEORD MEMORIAL LECTURE**

(Supported by 3M UK plc) [p. 154]

**Image processing and mammography**

Professor Michael Brady, University of Oxford

Ripley Suite (12.15–1.15) [pp. WIP 11–13]

**WORK IN PROGRESS: MAGNETIC RESONANCE**

Chairman: Dr I Beggs, Edinburgh

Harewood Suites I/II (2.15–4.40)

**THE BREAST** [pp. 155–160]

Chairman: Dr G Needham, Aberdeen

2.15 **Mammography physics: achievements and problems***Invited review* **Dr J Law, Edinburgh**2.40 **Imaging performance of storage phosphor digital mammography. A preliminary experimental and clinical study**  
**J Hildell, Riyadh, Saudi Arabia**2.48 **Fluorescent screens for mammography**  
**G E Giakoumakis, Ioannina, Greece**2.52 **Radiation dose reduction in mammography – is there a limit?**  
**H Fenlon, Dublin**2.56 **Comparison of quantitative dynamic MR mammography and quantitative colour Doppler ultrasound in breast lesions of unclear dignity**  
**A Mundinger, Freiburg, Germany**3.04 **A Norwegian national interlaboratory comparison of image quality and total performance in mammography**  
**J B Olsen, Oslo, Norway**3.12 **Radiological audit of the incident round breast biopsies from the Greater Manchester Breast Screening Service**  
**C R M Boggis, Manchester**3.20 **Stereotactic localization of small breast lesions for diagnosis and preoperative marking – method, experimental procedures and clinical results in 275 patients**  
**R Schulz-Wendtland, Erlangen, Germany**  
3.28 **Comparison of fine needle aspiration and wide core needle biopsy in a breast screening unit**  
**M A Crotch-Harvey, Macclesfield**3.32 **High-speed core biopsy: a new method for histological diagnosis of indistinct breast lesions**  
**M Bauer, Erlangen, Germany**3.40 **Stereotactic large-core needle biopsies of breast lesions: a report of 400 cases**  
**M Hardjasudarma, Shreveport, USA**3.48 **Influence of number of cases referred for biopsy on PPV% for abnormalities detected on breast screening**  
**M J Michell, London**

## WEDNESDAY 25 MAY

- 3.56 Features of breast carcinoma detected from early recall in a screening population**  
**M E Warren, Guildford**
- 4.04 Short-term recall for “probably benign” mammographic lesions detected in a 3-yearly breast screening programme  
J S Dawson, Nottingham
- 4.12 The imaging features of ductal adenoma of the breast with cytopathological correlation**  
**E Hurley, Liverpool**
- 4.16 Radial scars associated with a high incidence of carcinoma or atypical hyperplasia  
I D Morrison, London
- 4.24 Hormone replacement therapy and mammographic background pattern**  
**P N M Tyrrell, Coventry**
- 4.32 The radiological appearances of invasive cribriform carcinoma of the breast  
J A Stutz, Nottingham
- 4.36 Is ipsilateral mammography worthwhile in patients with Paget’s disease of the breast?**  
**A Ceccherini, Nottingham**
- 4.40 End of session
- Ripley Suite (2.15–3.15)*  
**GASTROINTESTINAL IMAGING** [pp. 161–163]  
Chairman: Dr A H Chapman, Leeds
- 2.15 The ultrasound features of chole-  
docholithiasis**  
**B J Abdullah, Gateshead**
- 2.19 MRI in perianal disease – an effective tool  
S Maheshwaran, Birmingham
- 2.27 Proctographic changes following  
rectopexy for SRUS and preoperative  
predictive factors for a successful  
outcome**  
**S Halligan, London**
- 2.35 Anal ultrasound: a useful method of  
assessing post-haemorrhoidectomy  
sphincter damage  
F G Balen, London
- 2.43 Paradoxical contraction of the  
puborectalis defaecography evaluation**  
**D Saranovic, Belgrade, Serbia**
- 2.51 Role of fluoroscopy in enhancement of  
patient nutrition in a cardiac intensive care  
unit  
R J Chambers, Ottawa, Canada
- 2.55 The role of the CT contrast enema in  
chronic ambulatory peritoneal dialysis  
peritonitis**  
**P Sanville, Manchester**
- 2.59 Preduodenal portal vein and associated  
anomalies – CT appearances  
G Walsh, Plymouth
- 3.03 The angiographic appearances of portal  
colopathy**  
**H Jongschaap, Newcastle upon Tyne**
- 3.11 The elephant’s trunk sign: a new sign of  
intussusception of tumours of the duodenal  
papilla  
H L Hale, London
- 3.15 End of session
- Bramham Suite (2.15–3.27)*  
**CLINICAL MAGNETIC RESONANCE**  
[pp. 164–167]  
Chairman: Dr N McMillan, Glasgow
- 2.15 TurboSTIR: phantom, volunteer and  
patient studies**  
**C J Baudouin, Leeds**
- 2.23 Day case paediatric anaesthesia for  
magnetic resonance imaging  
C E Hutchinson, Manchester
- 2.27 The place of magnetic resonance  
imaging in a UK paediatric surgical  
centre**  
**T M Tsang, Oxford**
- 2.31 Dynamic contrast-enhanced MR imaging  
of the liver – comparison with  $T_2$  weighted  
spin echo sequence  
J Ward, Leeds
- 2.39 Comparison of turbo and conventional  
 $T_2$  weighted spin echo sequences in the  
detection of focal liver lesions**  
**C J Baudouin, Leeds**
- 2.47 Comparison of dynamic contrast-  
enhanced MR and CT in patients with  
severe acute pancreatitis  
J Ward, Leeds
- 2.55 Citrate distribution with the normal  
prostate gland**  
**L W Turnbull, Hull**

**WEDNESDAY 25 MAY**

- 3.03 Contrast modification of 3D prostate scans by the introduction of MTC  
C E Hutchinson, Manchester
- 3.11 **MRI of episcleritis**  
**J Kabala, Bristol**
- 3.15 Detection of CSF fistulae: computed tomography *versus* magnetic resonance imaging  
D B Stafford Johnson, Dublin
- 3.23 **Magnetic resonance imaging of the anterior neck and floor of the mouth**  
**C E Hutchinson, Manchester**
- 3.27 End of session

*Charter Suite (2.15–3.45)*

**AIDS: RADIOTHERAPY AND RADIOLOGY**

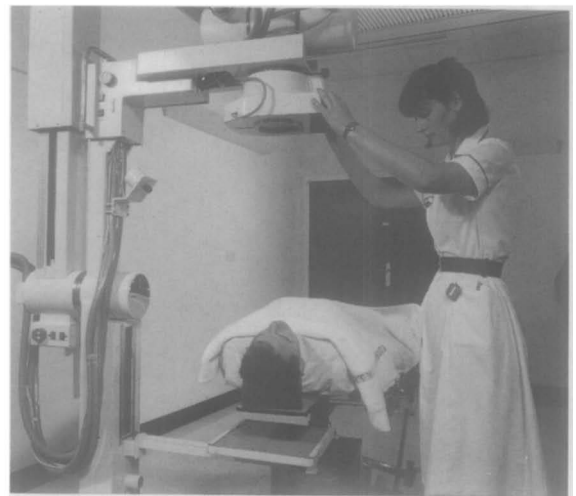
[pp. 168–170]

Chairman: Dr R I Rothwell, Leeds

- 2.15 **The management of AIDS related malignancies**  
*Invited review* **Dr M F Spittle, London**
- 2.40 Imaging of malignant disease in HIV infection  
*Invited review* Dr M A Hall-Craggs and Dr W R Lees, London
- 3.05 **Palliative radiotherapy for HIV related Kaposi's sarcoma**  
**S Stewart, London**
- 3.13 Lung cancer in patients infected with the human immunodeficiency virus  
A R Padhani, Baltimore, USA
- 3.21 **Gallium-67 citrate imaging in HIV infected patients with mycobacterial disease**  
**J R Buscombe, London**
- 3.29 Proton MR spectroscopy in AIDS: multicentre trial on mode of transmission  
M N J Paley, London
- 3.37 End of session

**END OF WEDNESDAY'S SESSIONS**

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# BIR

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