

Guest Editorial

Academic Clinical Oncology and Radiobiology Research Network (ACORRN): Establishing a coordinated network of groups and individuals who carry out Radiotherapy and Radiobiology Research in the UK

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Abstract

The Academic Clinical Oncology and Radiobiology Research Network (ACORRN) was launched in 2005 by the National Cancer Research Institute (NCRI) to revitalise radiotherapy (RTX) and radiobiology (RB) research in the UK [Price P. *Clin Oncol* 2005; 17:299–304]. The network was established in response to the sharp decline over the past 10 years in the number of clinical academics and radiation biologists. The decline had left the UK's radiotherapy and RB communities with insufficient infrastructure and capacity, despite radiotherapy experiencing one of the most rapid advances in technology and computerisation of any field in medicine.

Keywords

Radiotherapy; radiobiology; research radiographer; ACORRN

INTRODUCTION

The aim of ACORRN is to modernise radiotherapy research by establishing networks that support individuals and groups, by developing an integrated UK strategy and by providing the supporting infrastructure. Since its inception ACORRN have seen a number of major developments including an online presence at www.acorrn.org, ACORRN sponsored research meetings to fuel research expansion, surveys across the community followed by executive reports and promotions/publicity at conferences and in journals. A strategic vision for the future of UK Radiotherapy and Radiobiology research is currently in development. ACORRN in

collaboration with the UK community and the ACORRN International Scientific Advisory Committee (ISAC) aim to address the wide range of expertise needed to have a robust radiation oncology and biology enterprise in the UK.

BACKGROUND

In 2003, the NCRI Radiotherapy (RTX) and related Radiobiology (RB) Progress Review Group reported on the lack of provision of RTX and RB research in the UK. From this report, a number of priority research questions for the UK were derived. The UK academic community found they were willing, but not always able to respond to the research questions and in 2004, a follow up meeting identified the need for the creation of ACORRN. Funding was awarded from the Medical Research Council, Department of Health and Cancer Research UK in November

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2004, and ACORRN launched in February 2005.

The aim of ACORRN is to revitalise RTX and translational RB research in the UK by networking and supporting groups and individuals, developing an integrated strategy and the supporting infrastructure.

The ACORRN National Office is based in South Manchester in the Christie Hospital NHS Trust. It manages the daily running of the research network, which involves responding to enquiries from the research community, arranging and servicing meetings, attending conferences, maintaining an up-to-date website and working on operations to improve efficiency. The National Office is also involved in conducting surveys and reports from the research community, usually commissioned by one of ACORRN's Working Parties (WPs), for publishing on the ACORRN website and in scientific journals.

ACORRN is made up of the following four committees; the Oversight Committee; Steering Committee, the Planning Committee and the ISAC. The Oversight Committee, which is made up of our funders at the NCRI, is responsible for advising the ACORRN Steering Committee. The Steering Committee, with representation from across the UK, is responsible for the management of the network. The Planning Committee is responsible for the strategic direction of the network and receives advice from the ISAC. All committees meet regularly throughout the year.

PROJECTS

Since its inception ACORRN has developed some major projects to meet its aim as described in Table 1.

ACHIEVEMENTS

Online presence

The interactive website and discussion forum (see www.acorrn.org) was launched in September 2005 and serves as a hub of information and networking for professionals who have an interest in, or work in, RTX and/or RB research.

To further enhance the website, a research database was added and this was launched on 27th March 2006, to mark the birthday of Nobel Prize winner Wilhelm Röntgen. Our membership is increasing daily; currently we have over 600 registered members including nationals and internationals who actively use the information available on the site to network and collaborate. The website enables users to locate and contact National and International researchers quickly and easily, search for information on projects, groups and institutions, develop projects on-line using the secure document storage facility and will alert users to information of interest by email.

Research meetings

ACORRN have planned Research Topic Specific Networks (RTSNs), Research Collaborations, and WPs to fuel research expansion in the community. These networks are key to the strategic development of RTX and related RB research in the UK. The idea is to match new researchers with "mentors" who can advise how best to develop the application. ACORRN provides travel money to meetings, organises and services the meetings as well as helps with writing the grant application. Four successful grant applications have been approved which have had some ACORRN involvement.

Groups that have met this year to progress towards grant applications are:

- The Verification RTSN will be holding a national conference in September 2006 entitled "Implementing Image Guided Radiotherapy in the UK: Plans for a UK Research Strategy". Deliverables from the day will be four priority National research trials. Attendees will include a radiographer, a physicist and a clinician from each RTX department in the UK.
- The Particle Therapy/Radiobiological Modelling RTSN. This group has met and is developing a research project proposal to establish a reliable infrastructure for communication of RTX treatment plans between collaborating centres.
- The Late Effects RTSN. Their interest lies in defining a consensus on how best to quantify late normal tissue effects and the possible amelioration of late effects. This group has met

Table 1. Projects ACORRN has concentrated on since the Network was initiated in February 2005

ACORRN projects	Progress to date
On-line presence at www.acorrn.org	Website launched September 2005 followed by a research database in March 2006
Research Topic Specific Network (RTSN)	Verification, particle therapy/radiobiological modelling, late effects teams have been initiated
Meetings	Two groups currently meeting – the first is trying to identify a prognostic signature for radiosensitivity in bladder tumours and the second is developing a translational study to compliment the existing EaStER trial
Collaborative meetings	Research radiographers and Nurses in radiotherapy have been initiated
Working parties (WPs)	i. Research radiographers role definition and training needs: A Survey of UK Research Radiographer Opinions in 2005
Surveys and executive reports	ii. Five year strategy (in progress)
	iii. Nurses in radiotherapy (in progress)
	iv. Key scientific questions and opportunities in the field of UK clinical RTX and clinical RB research for the NHS in the next 5 years
Promotions/publicity	ACORRN have attended UK meetings/conferences with a stand and/or to present to raise the awareness of ACORRN and to highlight its aim

twice and will be meeting again shortly to progress further their initial ideas for a grant application.

Collaborative meetings

- A collaborative meeting has been held to develop a translational study entitled “Identification of a prognostic signature for radiosensitivity in bladder tumours”, incorporating tissue collected from the BCON trial (NCRI registered; a multicentre randomised trial of radical radiotherapy with carbogen in the radical treatment of locally advanced bladder cancer). The preliminary funding application is being prepared in view of submission in July 2006.
- A collaborative meeting has taken place to develop a translational study to compliment the existing EaStER trial (NCRI registered; Radiotherapy versus Surgery in Early Laryngeal Cancer). A preliminary application for tissue collection has already been prepared and the group is now moving forward with the main translational proposal.

Working parties

ACORRN has founded two WPs this year, the Research Radiographer WP and the Nurses in Radiotherapy WP. Currently, we are developing a Physicists WP and a Clinical Research Fellows WP. The WPs meet regularly to address the specific research and training needs of the community, with the aim of becoming a centralised point of contact

for the profession and provide them with a unified voice to approach the Funders. The WPs have also been pivotal in conducting some of the UK wide consultation surveys as described in the Surveys and Executive Reports section.

The Research Radiographer WP has been set up to address the specific research and training needs of the research radiographer community. The WP forms a cohesive group which will have a powerful voice to speak to the funding bodies on behalf of radiographers. Deliverables for the group have been identified as follows:

- Develop links with the Society of Radiographers.
- Establish database of Research Radiographer contacts.
- Undertake consultation/mapping exercise of Research Radiographers including a review of training.
- Establish central focus for Research Radiographers, establish interactive web presence on the main ACORRN website.
- Establish mechanism for providing support and advice to radiographers, identify lead ACORRN-aware/active contact at each radiotherapy centre.
- Identify standards for research training (mandatory – ethics/advised – research methods).
- Develop research training programmes for Radiographers.
- Identify funding mechanisms for Research Radiographers.

- Identify key research areas for radiographers and areas for collaboration.
- Identify infrastructure requirements (as part of wider ACORRN strategy develop templates for UK verification protocols).

ACORRN also offers a consultation service to members of the community. This service provides help and advice with respect to getting grant applications written and approved, strategy definition and relevant contacts. We had two consultations to date and intend to publicise this service on the website for the wider community.

Surveys and executive reports

ACORRN, in collaboration with the UK and International research community, has been putting together a 5 year Strategy for RTX and RB Research in the UK. This has involved canvassing opinion from the ACORRN Committees and the RTX/RB community via a UK-wide survey. ACORRN held their International Meeting on 12th May 2006 chaired by Professor Norman Coleman, National Cancer Institute, US to discuss a 7–10 years vision for the UK. The vision is to build from existing strengths by creating and enhancing existing centres of excellence, establishing collaborative internal networks that allow all interested people to participate and sharing expertise with international partners for research, education, clinical trials, etc. The meeting addressed the wide range of expertise needed to have a robust radiation oncology and biology enterprise in the UK. Following on from this meeting a formal Business Plan will be forwarded to the UK Funders for review and discussion.

The National Office has surveyed the opinions of the UK Research Radiographers and Nurses in Radiotherapy, with regards to their role definition and training needs. The Radiographer survey has been reviewed and is currently being compiled into the next ACORRN Executive Report. The Nurses survey is in the data collection phase. Next steps are to survey the UK Academic Community, Physicists and then the Clinical Research Fellows.

ACORRN performed a UK-wide survey on the key scientific questions and opportunities in the field of UK clinical RTX and clinical RB research for the NHS in the next 5 years. Results from 190 replies were collated and compiled into an Executive Report “Report of the Key Scientific Questions and Opportunities in the Field of UK Clinical Radiotherapy and Clinical Radiobiology Research for the NHS: A Survey of Clinical Opinions in 2005”.² The report was circulated to the DoH and the NCRI in October 2005.

Promotion/Publicity

ACORRN has attended UK meetings/conferences with a stand and/or to present to raise the awareness of ACORRN and to highlight its aim. Additionally articles in the following publications have been recognised:

- Royal College of Radiologists E Bulletin, March 2006 and November 2005,
- European Journal of Cancer, Editorial published May 2005 (See *European Journal of Cancer* (2005) 41: 965–969),
- Oncology Times, News published June 2005 and November 2005,
- Clinical Oncology, Editorial published August 2005.¹
- Regular press releases for the website and database (issued on various websites, e.g. NCRI Cancer Research UK, Medical News Today, Politics.co.uk and NTRAC).

GET IN TOUCH NOW

ACORRN has been established by and for the RTX and related RB research community. The Network can only succeed with the support and participation of researchers. If you are a researcher or belong to a group working in the field of RTX and RB, we would like to know how ACORRN can help you.

We would like to include your research interests in the ACORRN online database. Please send us details of your ongoing projects, future planned research, potential areas for collaboration, and any other ideas or suggestions you may have.

We have been given this opportunity to develop radiotherapy research in the UK. We will not have this chance again in the future, so we must work together NOW to make ACORRN a success.

For further information visit our website at www.acorrn.org, email us at acorrn@manchester.ac.uk or telephone on 0161 446 8279.

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