

Welcome to Neighbourhood News

Welcome to the twelfth issue of Neighbourhood News - a newsletter from the Manchester Cancer Research Centre (MCRC) to keep our neighbours up to date with developments and news from the MCRC and the new cancer research building for MCRC scientists. The newsletter is distributed to over 2,000 households in the local community and is produced every two months. We hope you find Neighbourhood News informative and helpful.

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About the MCRC

- The MCRC brings together world class research into cancer biology, drug discovery and clinical trials on one site, speeding up the translation of laboratory discoveries into new and improved treatments for cancer patients
- The new building will be home to 250 staff - providing space for an additional 150 University cancer researchers and about 100 clinical trials support staff from The Christie

Find out more about the new cancer research building and the MCRC here:

www.mcrc.manchester.ac.uk/newbuild/

Neighbourhood News

Patient's story highlights importance of breast cancer awareness



October marks Breast Cancer Awareness Month and survivor Sharon Quennell knows from experience just how important being breast aware is.

Sharon's story began two years before her own diagnosis when, in 1998, her mum was diagnosed with breast cancer. "It really got me thinking about any steps I could take for my own health. I asked my mum's breast care nurse, who showed me how to check myself. Two years later, I was in the bath doing a self-check when I felt a lump in my left breast - I went straight to my GP," said Sharon.

The mum-of-one from Oldham was just 36 years old when she had a biopsy and received her diagnosis from North Manchester General Hospital. Sharon underwent surgery at North Manchester then had 12 weeks of chemotherapy at The Christie. Describing her feelings she said: "When I walked through the doors on the first day of treatment I could not believe that I was a cancer patient - it was scary and

daunting. But, my breast care nurse put me in touch with a young lady who had completed treatment the year before and she was a real source of support."

Sharon reveals that she met some fantastic people during treatment - sadly some have since passed away. "That's very tough to deal with and one of the reasons I do as much as I can to raise awareness so that women are diagnosed early and have the best chance of cure." She's also one of life's optimists - seeing an opportunity behind every challenge. "Although there are sad stories, there are also happy ones. My mum is 80 this year, she and dad celebrated their diamond wedding anniversary - even though dad was diagnosed with bladder cancer four years ago - and I turned 50. Life is good," said Sharon.

Find out more about More Tomorrows and how you can get involved with fundraising for the new MCRC building here: www.moretomorrows.org

Manchester Professor is new President of the European Association of Cancer Research



The European Association of Cancer Research (EACR) has appointed Professor Richard Marais as its new President, sitting from 2014 to 2016.

As part of his role as President, Professor Marais, Director of Cancer Research UK Manchester Institute based at The University of Manchester, will take the lead role in organising the 24th EACR Biennial Congress, which will be held in Manchester on 9-12 July 2016. This prestigious event will help raise the profile of cancer research in Manchester on a global level.

The European Association for Cancer Research has over 9,000 researcher members and aims to advance cancer research. Founded in 1968, it is Europe's largest member society for cancer research.

Professor Marais said: "It is an honour to be elected President of the EACR and I look forward to leading the Association and its activities over the next two years. I am particularly delighted that my presidency will culminate with bringing EACR 24 to my home town."

New chair of The Christie



Christine Outram has been appointed as the new Chair of The Christie, effective from 1 October 2014.

Christine has had a long career in the NHS, with over 20 years at leadership level. She has held a number of top level posts including Chief Executive of North London SHA, Chief

Executive of NHS Leeds and senior roles at NHS England and at the Department of Health, including national work to improve the education and training of professional staff in the health service.

Christine Outram said: "I am delighted to be appointed as Chair of The Christie. It will be an honour and a privilege to help lead this hugely impressive and important organisation to achieve its ambitions for the future. I am a strong advocate of the crucially important role of specialist hospitals, which bring world class care and innovation to those who use the service, and drive up excellence in research and education."

Local cancer patients will be the first to benefit from new radiotherapy system



Cancer patients in the North West are set to benefit from a radical new treatment that aims to shorten treatment times, reduce side-effects and improve their chances of beating the disease.

The Christie has been selected to house an MRI-guided radiation therapy system, of which there are currently just two research systems in the world. The state-of-the-art radiotherapy machine uses imaging technology to better and more safely target radiation beams to the site of a tumour.

Current radiotherapy is hampered by the fact that some cancers – like lung, bladder and bowel cancer – can move and shrink during treatment, meaning that some radiation doses may not be accurately delivered to the target tumour.

The new system will combine a state-of-the-art linear accelerator, sophisticated planning software and magnetic resonance imaging (MRI) system, allowing highly detailed images to be taken of a tumour and surrounding tissue during treatment. These images let doctors visualise the cancer in real-time and adapt a patient's treatment plan, taking shrinkage or movement into account and improving the accuracy and effectiveness of radiotherapy.

"Using the tumour-tracking ability of the MRI-guided radiation therapy system means we can adapt radiotherapy treatment to tumour movement, better target the radiation to the cancer and avoid hitting healthy tissue. This will mean fewer side effects for cancer patients," said Professor Tim Illidge, leader of radiation related research at the MCRC.

Dr Ranald Mackay, Director of Medical Physics and Engineering at The Christie, said: "The MCRC is further strengthening its expertise in radiotherapy physics and will be well-placed to develop this technology into a system that should transform cancer treatment. Alongside the arrival of a proton beam therapy centre in 2018, it is an exciting time for radiation therapy research in Manchester."

News from around the MCRC

Step closer to new blood test that could help tailor treatment of ovarian cancer

A new blood test allowing doctors to predict which ovarian cancer patients will respond to particular types of treatment is a step closer following a study by MCRC scientists.

Researchers from The University of Manchester and The Christie say the test could be developed and used in hospitals within the next few years. It would mean doctors could see which patients could benefit from blood vessel-targeting drugs – such as bevacizumab – in addition to conventional therapy. Meanwhile, others unlikely to benefit would be spared the time and side effects associated with having the drug. The test would also help to reduce the cost to the NHS.

Bevacizumab works by stopping the development of new blood vessels that tumours need in order to access essential nutrients for growth and, in ovarian cancer patients, has shown significant but modest improvements in patient survival. Looking at blood samples from patients enrolled in an international trial of bevacizumab, the researchers found that two proteins – Ang1 and Tie2 – could be used in combination to predict patient response.

Patients with high levels of Ang1 and low levels of Tie2 were most likely to benefit from bevacizumab. Both these proteins are involved in controlling the formation of new blood vessels. Conversely, they found that patients with high levels of both proteins did not benefit from the additional drug. The team are now further exploring the potential of using a simple blood test to help personalise treatment for ovarian cancer patients.

Scientists pinpoint bladder cancer patients who could benefit from tumour-sensitising treatment

Scientists in Manchester have identified a protein that could help doctors decide which bladder cancer patients would benefit from a treatment that makes radiotherapy more effective. Low levels of oxygen in tumours – hypoxia – can make them less susceptible to radiotherapy. One approach to make hypoxic tumours more sensitive to radiotherapy is to add oxygen by giving carbogen – oxygen mixed with carbon dioxide gas – and nicotinamide tablets at the same time as radiotherapy, so-called 'CON' treatment.

The research team found that levels of a protein called HIF-1a – a marker of tumour hypoxia – could predict which bladder cancer patients were more likely to benefit from having CON added to their radiotherapy. When they measured HIF-1a levels in 137 patients who had radiotherapy on its own or with CON, they found that patients with high HIF-1a levels had better survival when they were given radiotherapy and CON. Patients with low protein levels did not benefit from having CON with their radiotherapy.

"Although we have another biomarker that can predict responsiveness to CON and radiotherapy in bladder cancer patients, our findings tell us a bit more about the characteristics of bladder cancer tumours and how they may respond to this treatment. More work is needed to find ways to treat those patients who won't see as much benefit from this," said Professor Catharine West from The University of Manchester, who led the study.

Manchester Science Festival



The MCRC is delighted to be a part of the upcoming Manchester Science Festival, proudly produced by the Museum of Science and Industry.

The Festival is taking place at the end of October in over 40 venues across Greater Manchester and is a fantastic opportunity for our scientists to engage with the public. Please join us at one of our free events by registering online:

Thursday 23 October at 19.00-21.00

The Immortal Woman: The Story of Henrietta Lacks

Monday 27 October at 14.00-16.00

Behind the Scenes with Cancer Research UK

Tuesday 28 October at 19.30-21.00

The Future of Prostate Cancer Research

www.manchestersciencefestival.com

Students learn about healthcare skills at The Christie

Year nine pupils from Chorlton High School and Manchester Health Academy have been visiting The Christie as part of a trial vocational taster programme to learn about the basic skills and attitudes needed to work in healthcare.

20 students volunteered to take part in this after-school initiative to find out what working in healthcare is like from staff at The Christie. They attended interactive workshops to learn about things like the importance of infection control and good hand hygiene as well as basic lifesaving skills, the link between smoking and cancer, complementary therapies and fire and emergency planning.

Construction update



M+W GROUP

Continuing in its final phase of construction, the MCRC building is on schedule for completion this winter.

The internal fit-out works are really beginning to come together with services installations well progressed and floor and ceiling finishes underway.

The external landscaping works are also progressing well with soft landscaping soon to commence to

create the new green swathe area running alongside Kinnaird Road.

Over the next few months, the landscaping works surrounding the building will be completed and the internal fit-out works will continue to progress. A key focus for the project team will be the final testing and commissioning of the services installations to ensure everything is in full working order and in accordance with the specified requirements.

Working hours

Construction work will be carried out on site from 08.30 to 17.30 from Monday to Friday, although personnel will access the site from 07.00. A small team will progress with the internal fit-out works from 17.30 to 20.00 from Monday to Thursday but will be restricted to quiet working. The need to work extended hours is still under consideration. If this is deemed necessary, the works will be contained within the building (not outside) and robust measures will be implemented to avoid any disruption to the local residents. The MCRC contractor, M+W Group, will circulate leaflets to all residents surrounding the site to ensure that they are informed of any such changes.

Deliveries to site will be between 07.30 and 18.00 from Monday to Friday. No deliveries are currently planned on Saturdays and Sundays.

Timeline

- ▶ **November 2012**
Breaking the ground event marks start of construction
- ▶ **November 2013**
Topping out ceremony as building reaches its highest point
- ▶ **January 2014**
Building weather-tight enabling internal works to progress
- ▶ **June 2014**
Visitor Centre removed to allow completion of the external landscaping
- ▶ **Early 2015**
New research centre completed and ready for use

Withington Green

The works to re-landscape Withington Green are still planned to commence very soon in preparation for the opening of the MCRC Building.



Building facts

- The MCRC building has been designed to facilitate interaction and collaboration
- Laboratories have been arranged into blocks with linked corridors, so that groups have their own dedicated space but can still work together and share facilities

Contact us

For queries about the MCRC or general questions about the new cancer research building you can email us on newbuilding@mcr.man.ac.uk or call **0161 446 3111** during office hours.

For queries about construction, or issues related to work on site, you can contact David Day, M+W Group Project Manager, 24 hours a day, by calling **07770 667 899**.