Obstacles in translating research into practice: why don’t we do what we know works?

TCRN Conference Grants Series: Dr Maarit Laaksonen

Translational research has recently become a focus for many research environments and funding agencies, and accordingly a topical theme for public health congresses. ‘Translational research and knowledge transfer’ was among the main themes of the 2012 Population Health Congress held in Adelaide in September, which I attended with the support of a Round 1 2012 TCRN Conference Grant. This congress is held every four years as a joint initiative of the four leading population health organisations in Australasia. Having worked now for 12 months in the Australian population health research environment following my previous experience in Finland, the Congress seemed an optimal opportunity to gain a broad overview of the population health research being undertaken in the region.

The process of translating research into practice seems, in principle, clear and simple: we do research to test new hypotheses or to confirm novel findings; once there is enough high-quality, evidence-based information we use it to make decisions and draft guidelines for the implementation of individualised patient care; implementation ideally results in the improvement of real-world patient outcomes. However there are many research areas, including cancer, where evidence is constantly being gathered and not all answers are clear. However as Professor Adrian Bauman, Director of the Prevention Research Collaboration, stated during the Congress: ‘the challenge in many areas is not that we don’t know what works, but rather that we don’t do what we know works’.

There are many potential obstacles in the transfer and practice of evidence-based medicine. Sub-optimal communication, and thus knowledge transfer, between researchers, decision makers and clinicians is one likely barrier. A simple example was given at the Congress by Prof Alan Shiell, Executive Director of the Centre of Excellence in Intervention and Prevention Science, Victoria. Prof Shiell described a research study demonstrating that when people were encouraged, e.g. by a simple sign, to regularly take stairs instead of the escalator or lift, this leads to improved fitness and health benefits when implemented as part of a daily routine. The same study has been repeated several times in a research context, well beyond the necessary replication to confirm any finding. However, in terms of real-life implementation, nothing has been done to promote change.

Professor Shiell suggested that a researcher’s emphasis on producing publications rather than seeing their results communicated and put in practice may be one potential reason for the lack of real-world evidence transfer. Researchers do commonly communicate their results, but too often in scientific seminars and congresses for peers rather than for policy makers and practitioners. Although many funding agencies now emphasize the importance of translational research, this is often not reflected within application criteria, which continue to focus on the quality and quantity of an applicant’s publications rather than their prior successes in adapting and communicating their research findings for policy makers, clinicians and the general public.

An additional obstacle in the translation of research in a health setting may arise from clinicians’ understanding of the research process. When a data-based research finding suggests that a modified or new treatment practice holds benefits for patient care, it should be replicated in a clinical setting to confirm its validity and generalisability prior to being permanently instituted. The validation process requires not only a well-designed study comparing outcomes with and without the intervention, but also the understanding and collaboration of a health service and its clinicians in implementing the intervention during its testing phase. While understandably there is a push to expedite broad implementation of interventions that may improve patient outcomes, carrying out a carefully designed, targeted evaluation of the intervention first will ensure that the new practice does result in the predicted patient benefits, that appropriate modifications can be made prior to widespread implementation, and that resources are not wasted in the process.

We must also remember that translational research is not unidirectional. Much can be learned through clinical evidence gathered in everyday practice. New hypotheses may emerge, be formulated and further tested through more research. Only then can the knowledge transfer be considered truly translational.

But even when there is good intention for knowledge exchange, obstacles may arise, for example due to researchers’ lack of understanding of a clinician’s reality. A good example came the other day from my mother, a nurse working in elderly care. The Finnish National Institute for Health and Welfare, a previous workplace of mine with an increasing interest in translational research, had designed a new program for nurses to document relevant information from their daily tasks in order for the Institute to learn and study details of current clinical nursing practices. The intention was good, however there had been no prior communication with the nurses to explain the purpose of the program, gather their feedback or prepare them for the tasks that the program required of them. While my mother and other nurses already struggled to manage their workload in a physically demanding job, they were also expected to learn labour-intensive programs using unfamiliar technology and maintain ongoing documentation of their daily work, without change to their regular work load. The likely result of such a poorly planned, designed and communicated intervention is resistance and lack of motivation.

The involvement of researchers in translating their findings into practice is certainly important, and the understanding and cooperation of clinicians is necessary. However the greatest challenge in knowledge transfer in health research comes in achieving clear dialogue between researchers, stakeholders, clinicians and policy makers. By doing so, we can create awareness and understanding of novel findings, agreement and acceptance of the necessary infrastructure and practices required to implement change, and enable final well-informed decisions to be made that will ultimately lead to improved patient care and clinical outcomes.
**2013 TCRN CONFERENCE & PROFESSIONAL DEVELOPMENT GRANTS** – ROUND 1 APPLICATIONS NOW OPEN

**Priority themes: Round 1 2013**

Preference for Round 1 2013 Awards will be given to applicants who attend professional development activities or conferences related to:
- Translational research (in its broadest definition)
- Evidence into practice, or similar
- Cancer biomarkers and personalised medicine
- Health services research
- Conferences specific to the TCRN’s primary site-specific cancers: ovarian cancer, brain tumours, haematological malignancy, GI tract malignancy.

These priority themes do not apply to nurses, allied health professionals or PhD students.

Applications to attend professional development activities or conferences in other focus areas will be considered, however preference will be given to areas of interest directly relevant to the TCRN and its goals and objectives.

Full details of the eligibility criteria and award requirements, and all application materials, can be found on the [TCRN website Funding pages](#).

Applications close 4pm Friday 7 December 2012.

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**Member spotlight: Dr Maarit Laaksonen**

Dr Maarit Laaksonen was recipient of a TCRN National Conference Grant for attendance at the 2012 Population Health Congress, held in Adelaide in September 2012, where she presented her research on *A new method and program for calculation of Population Attributable Fraction in a cohort study design and Total costs of prescription medicines and medical services in patients undergoing chemotherapy in NSW hospitals*.

Maarit is a biostatistician and epidemiologist with the Lowy Cancer Research Centre’s Adult Cancer Program, UNSW. After 7 years with the National Institute for Health and Welfare, Finland, Maarit took up a Postdoctoral Fellowship and Lecturer position with UNSW in 2011 and now lends her expertise to Australian public health research. She has extensive experience with the analysis and interpretation of population health data sets for the purposes of shaping and implementing evidence-based health care policy.

**Maarit was recently awarded a 2013 NHMRC Early Career Fellowship.** Her current research focus incorporates:
- Interrelation of genetic and lifestyle factors in the development and treatment of cancer, and their significance at a population level.
- Clarifying the importance of patient- and treatment-related factors in cancer treatment and redressing the potential misconceptions prevailing in clinical practice.
- Making realistic estimations of disease prevalence and the health care resources needed to address disease in future, and providing recommendations for resource optimization.
- Understanding the cumulative disease burden and connections between different diseases, both physical and mental, as a step forward from a single disease state focus.

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### Congratulations to the recipients of the Round 2 2012 TCRN Conference & Professional Development Grants

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<tr>
<th>Name</th>
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<td>Sylvia Chung</td>
<td>PhD, UNSW</td>
<td>10th Meeting of the European Association of Neuro-Oncology</td>
<td>Marseille, France</td>
<td>6–9 Sept 2012</td>
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<td><strong>Professional Development - National</strong></td>
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<td>Wendy Liu</td>
<td>POWH (N&amp;AH)</td>
<td>Centre for Palliative Care, St Vincent’s Hospital/University of Melbourne: Psychosocial Aspects of Palliative Care &amp; Family Centred Palliative Care and Cultural Issues short course</td>
<td>Melbourne, VIC, Australia</td>
<td>6–7 Sept 2012</td>
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<td>Danielle Osmond</td>
<td>POWH (N&amp;AH)</td>
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<td>Kireen Grennan</td>
<td>POWH (N&amp;AH)</td>
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<td>Brisbane, QLD, Australia</td>
<td>13–15 Nov 2012</td>
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<td>Shiyong Ma</td>
<td>PhD, UNSW</td>
<td>BioInfoSummer 2012 – Australian Mathematical Sciences Institute Summer Symposium in Bioinformatics</td>
<td>Adelaide, SA, Australia</td>
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<td><strong>Professional Development - International</strong></td>
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<td>Alanah Bailey</td>
<td>POWH (N&amp;AH)</td>
<td>Cooperative Trials Group for Neuro-Oncology (COGNO) 2012 Annual Scientific Meeting</td>
<td>Brisbane, QLD, Australia</td>
<td>7–9 Aug 2012</td>
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<td>Anne Booms</td>
<td>BMORU</td>
<td>3rd European Organisation for Research &amp; Treatment of Cancer (EORTC) Quality of Life, Symptom Research and Patient Reported Outcomes in Cancer Clinical Trials Conference</td>
<td>Brussels, Belgium</td>
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<td>Annmarie Hosie</td>
<td>Calvary Health Care Sydney</td>
<td>The European Delirium Association 7th Scientific Congress</td>
<td>Bielefeld, Germany</td>
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<td>Svetlana Cherepanoff</td>
<td>POWH</td>
<td>Visiting Scholar Observership, Ophthalmic Pathology, Wills Eye Institute</td>
<td>Philadelphia, PA, USA</td>
<td>25 Dec 2012 – 8 Feb 2013</td>
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BMORU, Border Medical Oncology Research Unit; N&AH, Nursing & Allied Health; POWH, Prince of Wales Hospital; UNSW, University of New South Wales
In August this year, the TCRN Operations & Projects Team began the process of restructuring our membership with the goal of improving the collaborative interaction of members, streamlining mechanisms for activity reporting, providing better governance and facilitating a focused approach to achieving the TCRN’s goals and objectives. Modification of the membership structure saw the previous individual TCRN membership transition to a group approach, with each of our Member Groups being headed by a Responsible Member. We now have 11 Member Groups from across our 7 Founding Institutions. Our membership has grown from 55 in January 2012 to 235 today. More details about the current TCRN membership and the process for new members wishing to join the TCRN can be found on our website here.

### CCY 2012 Project Advisory Group
- **Anne Booms**: Oncology Nurse Practitioner, Albury Wodonga Health, Albury Campus, *Border Medical Oncology*
- **Fiona Gillanders**: Oncology CNC, *St George Hospital*
- **Kim King**: CNE, Department of Gynaecologic Oncology, *Royal Hospital for Women*
- **Gemma Leake**: Acting CNE, *Gynah, Sutherland Hospital*
- **Gabrielle Prest**: Clinical Stream Manager - Cancer Services, SESLHD & SESI BreastScreen NSW
- **Louisa Robinson**: Oncology CNC, *POWH*
- **Dr Ramya Venkateswaran**: Medical Oncology Fellow, *POWH*
- **Prof Jane Phillips**: Project Lead. Professor Palliative Nursing, School of Nursing, *The Cunningham Centre for Palliative Care Sydney, and The University of Notre Dame, Australia*
- **A/Prof Tim Shaw**: Project Team. Director, Workforce Education and Development Group, *Sydney Medical School*
- **Lena Caruso**: Network Research Manager, *TCRN*
- **Dr Lucy Wyld**: Translational Cancer Research Fellow, *TCRN*

### CCY 2012 collaborators:
- Prince of Wales Hospital: Oncology/Palliative Care and Haematology
- Royal Hospital for Women: Gynaecological Cancer Centre
- St George Hospital: Combined Oncology/Palliative Care
- Sutherland Hospital: Combined Oncology/Palliative Care/Neurology
- Albury Base Hospital: Combined Oncology/Palliative Care
- School of Medical Sciences, UNSW
- Lowy Cancer Research Centre (wet)
- Lowy Cancer Research Centre (dry)
- Health Innovation
- University of Technology, Sydney

### Cancer Challenge of the Year 2012: project update
Preparations for the Spaced Education project are progressing well, with each of our five participating sites now in the final stages of project ethics approval.

The past two months have seen the following project achievements:
- The study tools (participant survey and chart audit tool) have been finalised following Project Advisory Group feedback.
- The Project Advisory Group have reviewed and refined the Spaced Education module content to reflect practices in a front-line cancer care context.
- A dedicated online platform has been set up to host the Spaced Education module.
- Potential IT access issues have been identified and addressed to ensure all participating departments have online access to the Spaced Education module and surveys.

The Research Team are looking forward to the project’s intervention phase commencing across all sites in January 2013.

### Spaced Education: an example from the project’s online pain assessment module
Joseph Miller, a 69 year old man has been brought in by ambulance, from home for symptom control of metastatic renal cell carcinoma. He is complaining of excruciating pain when the ambulance officers transfer him onto his bed. His wife, Anna, tells if he could have something to settle his pain. She is concerned as Joseph was unable to take his morning OxyCodone tablets as he was vomiting.

Which of the following is the first correct action in this situation?

- Treat Joseph’s pain and communicate this with the team leader.
- Treat Joseph’s pain and phone the resident doctor.
- Treat Joseph’s pain after completing a comprehensive pain assessment.
- Treat Joseph’s pain and orientate him to the ward.

**Answer**

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### TCRN membership news
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We now have 11 Member Groups from across our 7 Founding Institutions. Our membership has grown from 55 in January 2012 to 235 today.

**TCRN MEMBER GROUPS (Nov 2012)**
- Prince of Wales Hospital
- Prince of Wales Hospital (Nursing & Allied Health)
- Royal Hospital for Women
- St George & Sutherland Hospitals
- Calvary Health Care Sydney
- School of Medical Sciences, UNSW
- Lowy Cancer Research Centre (wet)
- Lowy Cancer Research Centre (dry)
- Health Innovation
- University of Technology, Sydney
The TCRN Operations & Projects Team invites all members to join us for the TCRN End of Year Get Together.

Come along to celebrate the success of the TCRN in its very first year and to learn about the member opportunities and TCRN activities in the year ahead.

Pen the date and time into your diaries and get prepared for a relaxed evening with friends and colleagues.

Further details to come in your upcoming member emails!

Members - have you logged in yet?

WE ARE HERE ➤ www.tcrn.unsw.edu.au

The member portal of the new TCRN website is a highly valuable resource within which you can share your professional interests and achievements with other members; search the network for specific expertise or research interests; log activities including publications, grants awarded, and congresses attended; and submit event notifications, resource requests and grant applications.

Each TCRN member has a unique member portal username and password. Any member who has not been provided with their initial password should contact the Operations & Projects Team immediately: tcrn@unsw.edu.au

We ask that all members update their public profile page and account details with as much information as possible – this is one of the most direct ways to share your skills and expertise with other members, and potentially identify and pursue new collaborations.

How to update your member profile
1. Go to www.tcrn.unsw.edu.au
2. Click on ‘Member Login’ on the dark grey navigation bar at the top of the screen.
3. When prompted, enter you unique username and password to enter your member home page.
4. Click ‘+ Edit my public profile’ to enter your expertise, interest areas and a short note about yourself. Once saved, this information will only be visible to other members of the TCRN.
5. Click ‘+ Edit my account details’ to update your contact details, upload a profile picture, and change your password.

Our website is designed to serve as the central ‘hub’ of the Network: the more information you share, the more the site will work for you.

Please direct any website enquiries or troubleshooting issues to tcrn@unsw.edu.au

Are you keeping up to date with what’s happening?

Did you know that the TCRN website has an events page?
www.tcrn.unsw.edu.au/news-events

Contact the Operations & Projects Team with details of an event you’d like to share tcrn@unsw.edu.au, or submit details via the website member portal.

Did you know that the TCRN website provides details of the latest funding opportunities, both internal and external?
www.tcrn.unsw.edu.au/funding-opportunities

Bookmark these pages for quick and easy access to current and relevant opportunities available to TCRN members.

The TCRN Operations and Projects Team is based at the Lowy Cancer Research Centre, UNSW, Sydney.

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Phone: +61 2 9385 1395
Weblink: tcrn@unsw.edu.au
Twitter: @TCRNNetwork

Our nest of followers is slowly expanding. Are you with us yet? Join @TCRNNetwork and be the first to hear all our latest news and important announcements.

SAVE THE DATE

TCRN CHRISTMAS EVENT

Wednesday 12th December, 4–8pm
Lowy Cancer Research Centre, UNSW

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Further details to come in your upcoming member emails!

The Health-Science Alliance 1st Annual Scientific Symposium: Science and Health for Women in 2012

REGISTRATION STILL AVAILABLE

WHEN: THIS THURSDAY 15th November, 2012; 8:00am – 4:45pm.
WHERE: Royal Hospital for Women Lecture Theatre, Level 1, Women’s Health Institute, Randwick. Click here for a site map (Building 17).
PROGRAM & REGISTRATION: www.thehealthsciencealliance.org/symposium

The theme of the inaugural Scientific Symposium of the HSA is ‘Science and Health for Women in 2012’. A number of TCRN members will be presenting their research and chairing sessions throughout the day:
Prof Neville Hacker (RHW); Dr Caroline Ford (Lowy); Belinda Rahman (Lowy); Prof Robyn Ward (POWH); Dr Phillip Newton (UTS); Prof Patricia Davidson (UTS).

There is no charge for attendance at this event, however registration is necessary.

For further information, please contact Cristina Kennett, UNSW Medicine on email c.kennett@unsw.edu.au, or telephone 02 9385 8632.