HEART & LUNG

Guest Editorial

"Vision and Innovation: The National Nursing Research Roundtable"

The National Nursing Research Roundtable (NNRR) is a public-private collaborative that provides clinicians, scientists, educators, scholars, and policy leaders an opportunity to come together to discuss priorities in science, practice and policy; to envision the future; and to act on this vision with prescience and ingenuity.¹

At the heart of the NNRR purpose is its commitment to research excellence, which provides the scientific foundation for improvements in health and health care. A crucial component of the NNRR mandate is the promotion and protection of the health and well-being of unrepresented, underrepresented, at-risk, and vulnerable populations. In this sense, scientific excellence and excellence in practice are matched by a leadership that reflects unwavering compassion and connection to the people it serves.¹

Each year since 1987, leaders from the health sciences have joined leaders in the health care community at the NNRR. Together, they share advances in science and practice as they work to identify, enhance, and leverage research resources; assess research challenges, gaps, redundancies, and opportunities; and pinpoint and support strategies, innovations, and policy initiatives that fuel new discoveries in science and that drive the translation of these discoveries into improvements in our Nation's health.

The 2012 NNRR was co-hosted by the Eastern Nursing Research Society (ENRS) and the National Institute of Nursing Research (NINR). Representatives from over 20 professional nursing societies met with colleagues from other disciplines and professions to discuss "Symptom Management in the Era of Technology" — a topic of special import to acute and critical care specialists.

The NNRR is a mix of formal scientific presentations, roundtable discussions, and break-out sessions. This year, Dr. Suzanne Bakken's keynote address focused on advancing the science of symptom management through innovative technologies. Dr. Bakken emphasized that the focal point for advances and

breakthroughs must be based on the science itself, with technology serving a vital but supporting role in the detection, monitoring, and managing of symptoms.

Dr. Annette De Vito Dabbs provided an overview of the development of "Pocket PATH®" (PP). PP is a "personal assistant for tracking health" that is based on mobile health information technology. PP provides access to a set of customized, smart phone programs designed to promote self-care behaviors in lung transplant recipients.² Currently, PP is being tested in a randomized clinical trial to evaluate self-care behaviors and health-related quality-of-life in lung transplant recipients.³

Anchoring the formal scientific presentations, Dr. Samuel Sia shared his latest advances in microfluidic, point-of-care technology. This technology provides rapid and accurate diagnoses in infectious disease, and facilitates on-the-spot treatment and symptom management interventions across health care settings. Dr. Sia's battery-operated, cost-effective, portable mCHIP has been successfully tested in Rwanda allowing local health care workers to quickly identify HIV and related infections. The potential applications for the mCHIP in hospitals, community clinics, and rural settings suggest it could be a leading disruptive innovation, bringing health care into the homes and hands of individuals, families, and communities on an unprecedented scale.

2012 Roundtable discussions and break-out sessions focused on: 1) challenges and opportunities for symptom research at the interface of technology, informatics, and engineering; 2) prioritizing research questions related to the use of technology in symptom management; 3) accelerating research translation into evidence-based practice; and 4) best practices for training clinicians and scientists in technology-facilitated symptom research, practice, and education.

Roundtable participants made several recommendations for advancing the field, including development of special boot camps, workshops, and other forums

that focus on the intersection of symptom management, technology, informatics, and engineering. These scientific forums would facilitate knowledge sharing and foster research and practice collaborations between nurse practitioners, nursing scientists, and other specialists from diverse fields including engineering, computer science, and the health technology business sector. Participants also suggested the development of "technology clubs" akin to scientific journal clubs, to promote exploration and critical analysis of technology applications in the health sciences.

Another suggestion was the establishment of a repository to provide a ready link for health care practitioners and scientists to technology, informatics, and engineering applications relevant to their work. This resource would link people as well as products; promote innovation in symptom management; and catalyze the translation of innovations into health and health care solutions. This repository could serve constituents worldwide, and spark international as well as national collaborations and partnerships.

Other recommendations to bolster and expand research capacity in symptom management and symptom management technology included: better leveraging of the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) funding mechanisms,^{6,7} and specific training in technology transfer.

Participants also identified and discussed barriers and constraints to technology applications in symptom management including rapid obsolescence of technologies and technology exhaustion experienced by clinicians and patients.

Overall, the 2012 NNRR reflected the energy, synergy, and creativity of past Roundtables, and has provided the symptom management, quality-of-life, technology, informatics, and engineering communities with thoughtful and innovative recommendations for moving forward.

NINR is privileged to co-host the annual NNRR meeting, and recognizes that the NNRR is a vital communication channel that promotes collaboration; knowledge dissemination; research translation; and that informs research efforts nation-wide.

On behalf of our co-hosts for the NNRR, NINR invites you to submit your ideas for future topics for the NNRR to: info@ninr.nih.gov.

REFERENCES

- National Nursing Research Roundtable. NNRR Operating Guidelines. NNRR and NINR. 1993.
- NIH RePorter. Phase III Trial of Pocket Path: A
 Computerized Intervention to Promote Self-Care. 2012.
 http://projectreporter.nih.gov/project_info_description
 .cfm?aid=8059669&icde=12255959&ddparam=&
 ddvalue=&ddsub=&cr=1&csb=FY&cs=DESC
- 3. NCT00818025. Comparing Methods for Tracking Health Information at Home After Lung Transplant. ClinicalTrials.gov. 2012. http://clinicaltrials.gov/ct2/show/NCT00818025
- 4. Addae-Mensah KA, Cheung YK, Fekete V, Rendely MS, Sia SK. Actuation of elastomeric microvalves in point-of-care settings using handheld, battery-powered instrumentation. Lab on a Chip 2010;10:1618-22.
- Chin CD, Laksanasopin T, Cheung YK, Steinmiller D, Linder V, Parsa H, et al. Microfluidics-based diagnostics of infectious diseases in the developing world. Nature Medicine 2011;17:1015-20.
- SBIR. PHS 2012-02 Omnibus Solicitation of the NIH, CDC, FDA and ACF for Small Business Innovation Research Grant Applications. grants.nih.gov. 2012. http://grants. nih.gov/grants/guide/pa-files/PA-12-088.html
- 7. STTR. PHS 2012-02 Omnibus Solicitation of the NIH for Small Business Technology Transfer Grant Applications. grants.nih.gov. 2012. http://grants.nih.gov/grants/guide/pa-files/PA-12-089.html

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