

Spring 2009: Clinicians and Researchers Team Up

In our Spring 2009 issue, CROR Outcomes examines the important relationship between clinicians and researchers.

The Rehabilitation Institute of Chicago is committed to a vision of research that is integrated with clinical practice to improve patient care and outcomes. To that end, CROR scientists make a commitment to collaborate with clinicians. Read inside about CROR mentorship of medical residents and post-doctoral fellows who wish to develop

research questions and the methodological and statistical skills to answer them. We also celebrate the relationships we have developed with other departments at RIC, including the Women's Health Rehabilitation Program.

In this issue, we continue to profile the many disciplines that work together to make our research projects successful. Read about the contributions of occupational therapists inside.

Allen Heinemann, Director



Collaboration Key to Success of Research at RIC

Involving clinicians in research projects aimed at improving patient care has been and continues to be a high priority at the Rehabilitation Institute of Chicago (RIC) and according to Dr. Trudy Mallinson, collaboration among physicians, nurses, rehabilitation professionals and researchers is beneficial for everyone involved.

Clinicians bring their valuable and practical perspectives to the table, and researchers can provide expertise in study design to make sure you can answer the question you really want answered, said Mallinson, who is associate director of the Center for Rehabilitation Outcomes Research (CROR) at RIC.

“For research to be of value, it has to work in the clinic and for the research project. It’s a two-way process and we all win.”
Dr. Trudy Mallinson, Associate Director

“Clinicians are the ones who are treating patients on a daily basis and they see what problems need to be addressed,” she explained. “Researchers, on the other hand, can tighten up protocols and make sure data are collected in the right way. It’s important that we create a really good match so both sides learn from each other.”

Creating that marriage can sometimes prove difficult because of clinicians’ pressing need for answers and the long-term nature of clinically-based research. In addition, Mallinson said, clinicians sometimes

...Continued on Page 5

Jillian Bateman, Clinical Research Coordinator

Jillian Bateman was originally drawn to the Rehabilitation Institute of Chicago (RIC) because of the organizations’ reputation, and because of her desire to participate in research projects while still exploring clinical work. Seven years later, Bateman, a clinical research coordinator at the Center for Rehabilitation Outcomes Research (CROR) at RIC, says the opportunity to work in a range of capacities is what has made RIC such a good fit.

“I am really grateful for a place like RIC because it has offered me the unique opportunity to improve both my clinical and research skills,” she said. “It provides people like me with clinical backgrounds the chance to do research, and I’ve been able to learn and grow in so many ways because of that.”

Originally from Nebraska, Bateman considered speech pathology – a career path many in her family had chosen – before deciding to pursue a career in occupational therapy. What attracted her to the field, said Bateman, was the prospect of being involved in a profession that allowed one to work in many types of environments with a wide variety of patients. She also appreciated the fact that occupational therapy used a holistic approach to treat patients.

“I liked the idea of treating the body and the mind while looking at how individuals interacted with their environment,” Bateman

...Continued on Page 6

Inside

Women’s Health

Dr. Colleen Fitzgerald shares her passion for women’s health and rehabilitation. Learn more about the Women’s Health Rehabilitation program and her research on *Page 2*.

Occupational Therapists

CROR Occupational therapists provide their unique perspective on disability and rehabilitation on *Page 3*.

Our Publications

Highlights of recent CROR publications and presentations on *Page 7*.

The Center for Rehabilitation Outcomes Research (CROR) conducts studies measuring how medical rehabilitation and health policies impact people with disabilities. The Center also examines methods to increase effectiveness and efficiency of the rehabilitation process. CROR is a part of the Rehabilitation Institute of Chicago – ranked #1 Rehabilitation Hospital for 18 Consecutive years by U.S. News & World Report.



Rehabilitation Institute of Chicago

#1 Rehabilitation Hospital in America

Dr. Colleen Fitzgerald's Passion for Women's Health

Spurred by what she saw as a lack of adequate rehabilitation care available for women, Dr. Colleen Fitzgerald has dedicated her career to addressing women's health issues that might otherwise go untreated.

As the medical director of Women's Health Rehabilitation at the Rehabilitation Institute of Chicago (RIC), Fitzgerald treats patients who suffer from the effects of chronic pelvic pain while also devoting a large share of her time to research projects involving pelvic pain and pelvic floor rehabilitation.

"I didn't exactly intend to be a researcher, but there was very little research done on the patients I see," Fitzgerald said. "I felt like I was giving good treatment to these women, but it wasn't always clear what was driving their pain or dysfunction and why they were improving with rehabilitation strategies. Having taken care of patients does give insights on what questions to ask and that has opened the door for some very important research."

Fitzgerald is a native of the Chicago area and earned a bachelor's degree in biology from Loyola University. Between her first and second year of medical school at Northwestern University in 1993, Fitzgerald did an externship at RIC – a choice that proved to be a pivotal point in her career. While there, she worked under Dr. Joanne Smith, a physician specializing in physical medicine and rehabilitation who is now RIC's President and Chief Executive Officer.

"I just fell in love with RIC and the patients, and I was so influenced by the care that Dr. Smith provided," said Fitzgerald. "I did other rotations but rehabilitation stuck with me. I felt like the clinicians took over where other people left off and had a great opportunity to address quality of life issues."

"I also felt like patients with disabilities needed so much more than they were getting and rehabilitation addressed that," she added.

After medical school, Fitzgerald started out as an inpatient physician in orthopedic rehabilitation at RIC, and she also continued to work with her mentor, Dr. Smith. When Smith founded the Women's Health Rehabilitation program, Fitzgerald eagerly stepped forward to help her develop the practice.

The new program offered a chance to provide rehabilitation care in way that no other providers were at that time, she explained. "We began taking referrals from urologists, OBGYNs – anyone who dealt with problems related to the pelvis."

On the clinical side, Fitzgerald's work with patients at RIC has been tremendously rewarding, she said,



particularly because many of her patients suffered from pelvic pain for years despite seeking treatment from other physicians. One woman, for instance, lived with chronic pelvic pain for 30 years and was told by several physicians that she would just have to live with it. After coming to RIC and receiving treatment, the woman had a whole new life, Fitzgerald said.

Fitzgerald has also turned her attention to research in order to inform and drive her clinical practice. She has been awarded numerous grants to study musculoskeletal characteristics of women with chronic pelvic pain, pelvic

floor rehabilitation and pelvic girdle pain during pregnancy. She also credits much of her research success to her collaborative efforts with research scientists at the Center for Rehabilitation Outcomes Research at RIC and in particular, Dr. Trudy Mallinson.

"I am a doctor and clinician at heart, and that is what I know

best," Fitzgerald said. "I need the expertise of researchers that know and understand how to ask the right questions, collect data properly, write a grant, and present it in the correct way. I couldn't do that without the help of people like Trudy. She believes in what we are doing and is a huge source of support."

Fitzgerald expressed optimism that more and more physicians will address women's health rehabilitation issues, especially those who were trained at RIC's residency program. She predicted that many will take what they learned and either integrate it into existing practice or start their own women's health programs.

"RIC has always been a place to try new things, to ask tough questions and to have a vision for patients that need hope," Fitzgerald said. "We work as a team here and I'm so grateful for that."

"RIC has always been a place to try new things, to ask tough questions and to have a vision for patients that need hope."

Dr. Colleen Fitzgerald

Occupational Therapists in Research: The Individual in Perspective

The same skills that occupational therapists rely on to inform their everyday work also make them invaluable collaborators in clinical research projects, according to occupational therapists and researchers at the Rehabilitation Institute of Chicago (RIC). Occupational therapists aim to maximize individuals' participation in daily activities and do so by working with patients to alter environments and remove barriers to activity, said Heidi Fischer, an occupational therapist and clinical research coordinator at RIC.

"As occupational therapists, we are really interested in understanding what motivates people to do things and what activities they find meaningful," Fischer explained. "When you come to the table as an occupational therapist, you start from the top down. We start with the person and we try to use their individual characteristics as a means to help them."

For instance, Fischer said, an occupational therapist who treats an elderly woman who needs to be more physically active would immediately try to ascertain what things are meaningful to her in the hope that those interests could be used to help her participate more fully in her daily life. If the woman enjoys spending time with her grandchildren, her occupational therapist could point out activities – such as going to the park– in which she could fulfill her role of grandmother while improving her health, she added.

"That perspective is central to occupational therapy," said Fischer.

"It definitely is second nature for occupational therapists to think about the person as a whole," agrees Lauri Connelly, an occupational therapist and a clinical research coordinator at the Center for Rehabilitation Outcomes Research (CROR) at RIC. "Helping a client build strategies around personal strengths and motivations can be very effective in achieving goals."

OTs in arthritis research

One research project that has enlisted the help of several occupational therapists is a study examining levels of physical activity in people with arthritis. The main objective of the project, led by Dr. Rowland Chang, director of the Arthritis Program, is to develop an instrument that can assess physical activity and barriers to participation.

Promoting physical activity is critically important in patients with rheumatoid arthritis and osteoarthritis because it can aid in pain management, increase mobility and help patients control their weight – an important factor in reducing joint pain. However, patients with arthritis often limit exercise because they experience discomfort or because they fear it may worsen their symptoms.

As part of the study, some occupational therapists and nurses serve as physical activity advocates. They meet with study participants, conduct interviews based on the principles of motivational interviewing, and help them to devise a plan of increased physical activity that fits in with their lifestyle. It is a perfect match for occupational therapists, said Fischer, who works on the study as an advocate.

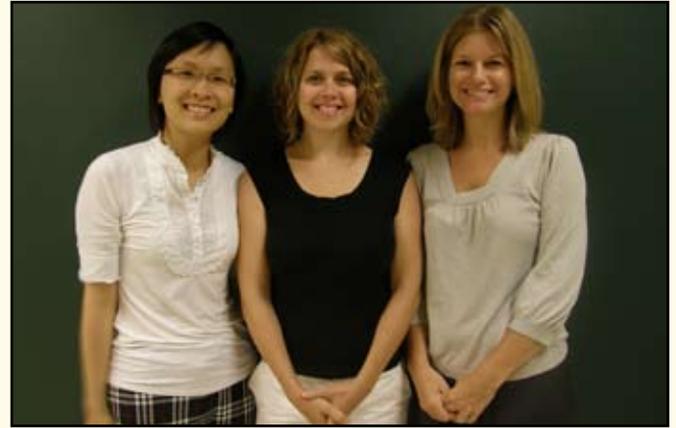
"We've had extensive training in motivational interviewing and as therapists, we're skilled at building rapport with people to help them think about their activity levels," Fischer said. "We encourage clients to decide their own goals by improving their awareness of the physical activity. That's a lot different than the usual method where the clinician tells a patient what to do."

In one instance, Fischer worked with a client who had few friends and lived a very isolated life. While she realized the importance of staying active, she felt hindered by her lack of social connections, Fischer explained. During the interview process, the client mentioned her two dogs and her interest in meeting people who shared her love of animals.

"From there, she decided to volunteer at the Humane Society, where she can be active and make new friends at the same time," Fischer said. "It was great to help her come up with ideas that will work best for her. Sometimes people just need someone to listen and help them to try something new."

People are, for the most part, very receptive to the motivational

interviewing approach and to the idea of crafting their own fitness strategy, said Hsiang-Yi Tseng, a clinical research coordinator at CROR and an occupational therapist at RIC. Tseng, who also serves as a physical activity advocate in the study, explained that supporting each person to make their own decisions about physical activity has been an effective way to assist them to follow their plans. Connelly agrees. "The clients are the only ones who know how pain or other barriers interfere with their job or everyday activities and how it affects their quality of life. Because the client is the one responsible for making decisions, they do not feel the need to argue against clinician advice they feel isn't right for them and can instead focus on what could work."



From the left: Hsiang-Yi Tseng, Heidi Fischer, Lauri Connelly

Women's health

Connelly's occupational therapy background has also been useful in other research projects. She currently serves as the research coordinator on a project led by Dr. Colleen Fitzgerald, which uses ultrasound to diagnose pelvic girdle pain in women. According to Connelly, her organizational and time management skills, which she honed as an occupational therapist, are proving useful in the project. She will also rely on her occupational therapy experience when she begins recruiting patients, she said.

"It will be important to listen to each woman's perspective and experiences with pain, and to be able to see how it affects her life," Connelly said. "I'm proud to be working on this project. I feel it is important to investigate how pelvic girdle pain might be addressed before pain begins to interfere with a woman's quality of life."

Working as a bridge

Because of the nature of their work, occupational therapists can serve as a bridge between clinicians and researchers to improve communication, said Tseng, who also utilizes her background in several other studies. The key, she said, is ensuring everyone feels comfortable approaching others with ideas.

"We need to inform researchers about who is available on the clinician side and what kind of work they are doing, and we need to encourage clinicians to come to researchers when they have a good idea."

Fischer agreed, saying many times clinicians were not aware that help from researchers was available.

"We need to show both clinicians and researchers that they are equal partners in the process," added Fischer. "When clinicians have questions, we can help them research them in a robust, effective way. We all have our own expertise and we can learn from each other."

Final Advisory Board Meeting for Rehabilitation Research and Training Center on Outcomes and Effectiveness

Advisory Committees play a critical role in the success of research projects by guiding researchers on methodology and recruitment strategies, as well as ensuring that the research is relevant to the stakeholders who are interested in the work – patients, caregivers, rehabilitation providers, policy makers and payers of rehabilitation services.

This critical role was especially evident during the 5-year Rehabilitation Research and Training Center (RRTC) on Measuring Outcomes and Effectiveness at the Center for Rehabilitation Outcomes Research. During the funding period, the Advisory Committee met each year to view the progress of the four research projects and their accompanying training and dissemination projects. Committee members were helpful in referring additional data collection sites for a project that required more than 20 skilled nursing facilities, inpatient rehabilitation facilities, and home health agencies across the country. For a project about community participation of people with disabilities, committee members provided valuable consumer resources for field testing the instrument. Throughout the project, the committee proved an effective sounding board for ideas and means for dissemination and feedback to stakeholder groups and policy organizations, such as the American Medical Rehabilitation Providers Association and the Centers for Medicare & Medicaid Services (CMS).



Front Row: Pamela Roberts, Allen Heinemann, Barry MacNamara

Middle Row: Barbara Gage, Trudy Mallinson, Anne Deutsch

Back Row: Carolyn Zollar, Chris MacDonell, Joseph Haughney, Christina Papadimitriou

In April 2009, the Advisory Committee for this RRTC convened for the last time. The committee reviewed overall progress of the grant, followed by a constructive discussion about future directions for research. Researchers at the Center for Rehabilitation Outcomes Research expressed their gratitude for years of support.

“We get incredibly helpful suggestions on topics to investigate, people to consult, and methods of translating our results to clinical practice and policy,” said Dr. Allen Heinemann. “I can’t imagine we would have near the impact we do without the support and encouragement of advisory committee members.”

RIC Resident Wins Prize at Baskin Research Day



At the Rehabilitation Institute of Chicago, resident physicians are expected to participate in a research program to integrate their experiences in patient care with practical research training. Key to the success of this training is the mentorship of experienced researchers within the institution, who can guide residents to develop workable research questions and the methodology and statistical analysis necessary to answer them. Each year, RIC holds an Annual Research Day to provide residents with the opportunity to present their research projects to RIC colleagues and the medical school community.

This year, third year resident Dr. Katherine White (pictured, left) collaborated with the Center for Rehabilitation Outcome Research’s Dr. Anne Deutsch and Dr. David Chen, Medical Director of the Spinal Cord Injury Rehabilitation Program, to answer her questions. Dr. White examined the impact of obesity on patients in inpatient rehabilitation. Working with data from the Spinal Cord Injury Model System Database, Dr. White investigated the effects of obesity on patients’ functional status and discharge destination, taking into consideration gender and type and severity of injury.

Dr. White’s hard work, and the mentorship of Drs. Deutsch and Chen, paid off. Dr. White was awarded 3rd place in the prestigious Sarah Baskin Award for Excellence in Research for 2009.

The Effect of Obesity on Discharge Functional Status and Discharge Destination in Acute Inpatient Spinal Cord Injury Rehabilitation

**Katherine White, MD
Anne Deutsch, RN, PhD, CRRN
David Chen, MD**

CROR Collaboration in Research (Continued From Page One)

feel as though researchers swoop in, take data and then share very little about the results.

“The key is for clinicians and researchers to communicate with each other and try to talk through the differences between what can practically be done in the clinic and what is required of rigorous, systematic research. When we do that, there is so much value to us working together,” she added.

Dr. Anne Deutsch, also a clinical research scientist at CROR, agreed saying clinician involvement gives researchers the added assurance that their work will be relevant to day-to-day patient care.

“When physicians approach us with a research question, we’re then able to help them examine that issue in a structured way,” Deutsch said. “We can develop a plan, and we also have tools and techniques that can make the process go smoothly.”

Collaborating on women’s health

One instance of successful collaboration between researchers and clinicians is helping to shed light on the root causes of chronic pelvic pain in women. Dr. Colleen Fitzgerald, medical director of the Women’s Health Rehabilitation program at RIC, and Cynthia Neville, a physical therapist and at that time the corporate director of the program, approached Mallinson with a research problem.

The two treated many women with pelvic pain and were motivated to find a way to determine whether the pain was due to pelvic floor musculature problems or some other cause. The clinicians had identified reliable clinical maneuvers or examination techniques that could help identify pelvic floor issues. They hoped to ensure patients received appropriate treatment.

Fitzgerald and Neville’s work with Mallinson has produced three manuscripts including one that looks at which maneuvers are best able to identify pelvic floor weakness, and another that examines the difference between the ability of physical therapists and medical doctors to diagnose the condition. “This was a collaboration in which we’ve all learned a great deal,” said Mallinson, who has continued to work on other projects with members of the Women’s Health Rehabilitation program. “They really thought about what they were doing before they began collecting data and they were receptive to my suggestions.”

Ideally, Mallinson explained, clinicians should approach researchers as early in the process as possible so they don’t have to go back and make adjustments to flawed study design or methodology.

“There is real value to talking with researchers first and getting them on board right away,” she said. “Therapists sometimes approach us when they are already down the track in data collection and it is difficult for them and for us when there are problems with their research methods and the data can’t be used to answer their questions.”

Collaboration in pain assessment

In another example, Dr. Linda Ehrlich-Jones, a nurse and clinical research scientist at CROR, has collaborated with Anne Bynes, nurse manager for traumatic brain injury (TBI) at RIC. Clinicians in the TBI unit often have difficulty assessing pain levels in patients with severe brain injury because most are minimally conscious and non-communicative. That is a real problem, said Ehrlich-Jones, because patients with severe TBI often have other extensive injuries and are likely in pain.

Ehrlich-Jones and Bynes reviewed scientific literature, but could not find a pain assessment tool that met the needs of this unique group of patients. So they developed a proposal to the National Institute on Disability and Rehabilitation Research (NIDRR) to develop a specialized tool for this group of patients.

The instrument, once it is developed, may also be used for patients who have less severe brain injuries but who also have cognitive problems that make their responses unreliable, said Ehrlich-Jones.

“Because I am a nurse and I have worked as a clinician, I think that assures physicians nurses that I have an understanding of their work,” she explained. “I’m hoping word of successful projects like this will spread and we’ll be able to do even more.”

“My hope is that clinicians...come to a researcher and get some help examining an issue. Having the tools and time to spend on a project really does make a difference”

Dr. Anne Deutsch, Research Scientist

Helping residents to embrace research

Encouraging residents to actively participate in research is also an important goal at RIC, said Deutsch. The hope, she said, is that residents will gain valuable exposure to clinical research while at RIC and then will continue to seek involvement in projects after they graduate.

“It gives them an opportunity to get used to collaboration with researchers and to get their feet wet in a comfortable environment,” said Deutsch.

For the last two years, Deutsch has served as a process mentor in the Resident Research program, led by Dr. Richard Harvey. For her part in the program, Deutsch meets with four residents twice a year to review progress on their research projects and provide support.

Since the program’s inception, Deutsch has collaborated on a range of projects with residents including a study with Dr. Shanti Ganesh examining pain and functional recovery in Medicare patients with a hip fracture, and another project with Dr. Katherine White examining the prevalence of morbid obesity among inpatient rehabilitation patients.

“My hope is that clinicians feel like they can come to a researcher and get some help to examine an issue,” she said. “Having a researcher with tools and time to spend on a project really does make a difference.”

Benefits for researchers

Although researchers are adept at statistical analyses, assembling an abstract, and other tasks, clinician involvement informs research in a critical way, said Deutsch. Physicians, therapists and nurses also have a level of patient access that researchers do not. For instance, Deutsch is currently working on a health literacy project with Ellen Jo Suerth, a nurse at RIC.

Patient privacy rules do not allow Deutsch to go directly to patients and ask them to participate in the study, but Suerth has stepped forward and filled that role by actively recruiting patients. The collaboration has been good for both of them and the two plan to present their work on health literacy and easy-to-read materials at the Association of Rehabilitation Nurses annual meeting in October. The audience will also benefit, said Deutsch, because they will get to hear both the clinical and the research perspectives.

“As we team up on different projects, we’re seeing so many benefits to working with clinicians on our side, too,” agreed Mallinson. “For work to be of value, it has to work in the clinic and for the research project. That means choosing outcome instruments that are meaningful for clinicians. It’s a two-way process and we all win.”

Jillian Bateman (Continued From Page One)



explained. “That was a big draw for me.”

After completing a clinical doctorate in occupational therapy at Creighton University, Bateman completed a clinical rotation at RIC in inpatient pediatric occupational therapy. While there, she treated children with spinal cord injuries, traumatic brain injuries, burns, developmental disabilities and shaken baby syndrome. She also worked part-time developing an occupational therapy framework training module.

After leaving RIC for a brief time to work as an inpatient occupational therapist at Schwab Rehabilitation Hospital in Chicago, Bateman returned when she learned of an opportunity to work in RIC’s driver rehabilitation program. Patients in the program had injuries, diseases, or developmental disabilities that had decreased their driving capability. Bateman was charged with evaluating the patients and determining if they needed adaptive equipment or behind-the-wheel training to allow them to remain independent with driving, return to driving, or learn to drive for the first time.

Bateman worked in the driving program for two years and then, driven by her desire to do research, she inquired and was introduced to Dr. Trudy Mallinson, a clinical research

scientist at CROR. Mallinson hired Bateman to be the project manager on a five-year study comparing outcomes and cost effectiveness of treatment across a range of different post-acute care settings.

“Looking back, Trudy took a big leap of faith putting me in charge because I had a clinical background and the nature of the project dealt so much with things like developing research protocols, working with an institutional review board, and understanding and getting research contracts into place,” said Bateman. “I had to learn most of those things on the job and Trudy was a great mentor to me.”

problems, and my hope was to change health policy and eventually change practice.”

Bateman spends a good portion of her time on the study comparing post-acute care settings, but she is also involved in a drug trial with Dr. Christina Marciniak, a physician at RIC, and on a project promoting physical activity in individuals with arthritis. In the arthritis study, led by Dr. Rowland Chang, co-director of RIC’s Arthritis Program, Bateman works as a physical activity advocate and helps patients overcome barriers to physical activity. The hypothesis, she said, is that increased exercise will help to improve their arthritis symptoms.

“I had faced many of the frustrations as a clinician that this study is trying to address. My hope was to change health policy and eventually change practice.”

Jillian Bateman, Clinical Research Coordinator

The leap of faith paid off, according to Dr. Mallinson, who called Bateman “indispensable” and said her “can-do attitude means she can take any task and run with it.”

Although learning some of the necessary project management skills on the job was challenging, Bateman’s clinical background has proved to be very useful. She was familiar with course of patient care and was comfortable with the interaction with clinicians and on-site training of nurses required by the study, she said.

“I had faced many of the frustrations as a clinician that this study is trying to address,” she added. “I had struggled with clinical guidelines and

The study has also given Bateman another opportunity to wear her “clinical hat,” she added.

Bateman, who just recently became a certified clinical research coordinator, also enjoys providing project management expertise to other clinicians within RIC who have their own research projects.

“A lot of physicians and clinicians have research projects in mind to answer the problems they encounter in clinical practice,” she said. “It is very beneficial to consult with someone familiar with research such as those who work within CROR who can help with study design and identify issues they might run into.”

Acknowledgements

The Center for Rehabilitation Outcomes Research at the Rehabilitation Institute of Chicago is funded, in part, by the National Institute on Disability and Rehabilitation Research, National Institutes of Health, Centers for Medicare and Medicaid Services, and the Rehabilitation Institute of Chicago. We thank them for their continued support.

Comments?

Your opinions are important to us!

If you have a comment or suggestion regarding our research or the *CROR Outcomes* newsletter, please send an email to Holly DeMark at hdemark@ric.org. We appreciate your feedback.

Annual Fellows Recognition Ceremony Highlights

CROR Collaboration

In April, the Rehabilitation Institute of Chicago held its annual Fellows Recognition Ceremony to honor the accomplishments of physician, nurse, allied health, and postdoctoral research fellows, as well as disability ethics scholars.

The Center for Rehabilitation Outcomes Research (CROR) celebrated the collaboration with postdoctoral research fellows in the Institute for Healthcare Studies at the Feinberg School of Medicine.

Dr. Yaojen Chang has studied cost-effectiveness of carcinoma screening, as well as other issues in health economics.

Dr. Christina Papadimitriou has worked with Dr. Anne Deutsch on a project about consumers' use of quality information, as well as focusing on client-centered practices of therapists in spinal cord injury rehabilitation.

Dr. Jiyoung Kim has studied behavioral problems and health service use patterns among maltreated children.

Dr. Jae Chul Lee has collaborated with Dr. Allen Heinemann examining data from the Research Services Administration on rehabilitation outcomes for vocational rehabilitation services.



From the left: **Trudy Mallinson, Yaojen Chang, Christina Papadimitriou, Jiyoung Kim, Jae Chul Lee**

Recent CROR Publications and Presentations

Alexander MS, Anderson K, Biering-Sorensen F, Blight AR, Brannon R, Bryce T, Creasey G, Catz A, Curt A, Donovan D, Ditunno J, Ellaway P, Finnerup NB, Graves DE, Haynes BA, **Heinemann AW**, et al. **Outcome measures in spinal cord injury: Recent assessments and recommendations for future directions.** *Journal of Spinal Cord Medicine*, April 2009.

Deutsch A, Worsowicz GM, Manheim LM, **Heinemann AW**. **Money Matters: Inpatient Rehabilitation Financial Data.** Poster presentation at the American Congress of Rehabilitation Medicine and American Society of Neurorehabilitation Joint Conference: Rehabilitation Research: Interdisciplinary, International, Interactive. Toronto, Ontario, Canada; October 15-17, 2008. *Archives of Physical Medicine and Rehabilitation* 2008;89(10):E26-27.

Deutsch A, Granger CV, Russell C, **Heinemann AW**, Ottenbacher KJ. **Apparent changes in IRF outcomes due to a change in the definition of program interruption.** *Archives of Physical Medicine and Rehabilitation*, 89, 2274-2277, 2008.

Durkin E, **Heinemann AW**, **Deutsch A**. **Inpatient Rehabilitation Facilities: Variation in Organizational Practice in Response to Prospective Payment.** *Medical Care Research and Review*, in press.

Heinemann AW. **Considering Race and Ethnicity in Rehabilitation Outcomes after Brain Injury.** Paper presented at the International Conference on Culture, Ethnicity, and Brain Injury Rehabilitation, Arlington, VA, March 12, 2009.

Ganesh SP, **Deutsch A**. **Pain and Functional Recovery in Elderly Medicare Patients with Hip Fracture.** Presentation at the Association of Academic Physiatrists. Colorado Springs, CO. February 26, 2009. *American Journal of Physical Medicine and Rehabilitation* 2009; 83 (3) supplement 1:S13.

Graham JE, Ripsin CM, **Deutsch A**, Kuo YF, Markello S, Granger CV, Ottenbacher KJ. **Relationship between diabetes codes that affect Medicare reimbursement (tier comorbidities) and outcomes in stroke rehabilitation.** *Archives of Physical Medicine and Rehabilitation*, 2009; 90:1110-6.

Magasi S, Durkin E, Wolf M, **Deutsch A**. **Consumers' Use and Understanding of Quality Information: A Health Literacy Perspective.** *Archives of Physical Medicine and Rehabilitation*, 63, 220-226. February 2009.

Mallinson, T, Fischer, H, Rogers, JC, **Ehrlich-Jones, L**, & Chang, R. **Human occupation for public health promotion: New directions for occupational therapy practice with persons with arthritis.** *American Journal of Occupational Therapy*, 63, 220-226, 2009.

Mallinson, T. Impact of Urinary Incontinence on Rehabilitation Outcomes in IRFs. (Poster) American Physical Therapy Association, Combined Sections Meeting, Las Vegas, NV. 2009.

Mallinson, T. Musculoskeletal Dysfunction in Female Chronic Pelvic Pain: A Blinded Study of Examination Findings. (Poster) American Physical Therapy Association, Combined Sections Meeting, Las Vegas, NV. 2009.

White KC, **Deutsch A**, Chen D. **The Prevalence of Morbid Obesity in Acute Inpatient Rehabilitation: A Review of the Medicare Database.** Presentation at the Association of Academic Physiatrists. Colorado Springs, CO; February 27, 2009. *American Journal of Physical Medicine and Rehabilitation* 2009;88(3) supplement 1:S48.

Williams R, Heinemann AW, Wilson C, Bombardier C. **Depression Measurement after SCI: An Extended Evaluation.** Poster presented at the Rehabilitation Psychology Conference, February 27, 2009, Jacksonville, Florida.

Subscriptions and Archives

To be added to the *CROR Outcomes* mailing list, or to discontinue your subscription to this newsletter, please email your request to hdemark@ric.org.

If you missed previous editions, archived copies of our quarterly newsletter are available online:

Visit <http://www.ric.org/cror> and click on "Newsletters."