Dear Members,

It was great seeing so many of you at the annual CCTR Science Day! We had a record turn-out of almost 200 attendees (page 6). I would like to thank Eileen Klein and Cate Pihoker for their incredible leadership as well as the CCTR Education-Communication Committee, especially Kelsey Heriot and Colleen Lee, for making CCTR Science Day a success. Our keynote speaker and former colleague, Dr. Phil Tarr, gave a very provocative talk on the role of the gut microbiome in the health of high risk premature infants.

Science Day is only successful if there is active participation by our membership. Thus, I would like to thank and acknowledge all the center members who presented posters or gave platform presentations. Congratulations to the Science Day abstract award winners, Alpana Waghmare, Lori Rutman, Katie Whitlock and Connor Mitrovich.

In this issue of CCTR News, please see our special features highlighting our excellent faculty and research staff. We are focusing on Critical Care Medicine with spotlights on Dr. Lincoln Smith (page 7) and his work on pediatric acute respiratory distress syndrome (ARDS) as well as Erin Sullivan (page 2), a member of the Clinical Research Staff Support Core who has been working with Jerry Zimmerman on his NIH supported sepsis study.

Each issue we like to share the work of some of our Clinical Research Scholars Program (CRSP) recipients. This issue features Abby Rosenberg, MD, MS and Joyce Yi-Frazier, PhD (page 3). The two have developed a very productive research collaboration. Both share an interest in improving psychosocial outcomes for their respective patients by helping families and patients develop resilience. They did not realize their common interest until they met through the CRSP program. Together they have designed an age-appropriate intervention for adolescents and young adults that is not disease specific.

We are pleased to announce the launching of the Clinical Research Web Hub taking place the beginning of July. The website will be a central information source for faculty, staff and families to learn about participating in clinical research at Seattle Children’s. We will send out an announcement once the web site goes live. I want to thank Dedra Schendzielos, Kathy Porada, Kelsey Heriot, Ellen Kuwana and Roseanne Hampton for all their efforts in the development of this website.

Have a great summer!

Bonnie Ramsey, MD
We are pleased to welcome Erin Sullivan to the CCTR! Erin joined the Clinical Research Staff Support Core (CRSSC) in February 2014 as a clinical research associate.

**How did you get started in research?**

After college, I worked at Johns Hopkins helping run behavioral pharmacology trials for about two and a half years. After that, I went to graduate school at Emory and worked at the CDC in the Division of Violence Prevention, Center for Statistics and Programming doing data analysis and statistical reports for suicide research.

**What brought you to Seattle Children’s?**

I moved to Seattle in January to be with my fiancé. Before moving here, I was working in healthcare consulting at PricewaterhouseCoopers. I really missed working in clinical research and interacting with patients and families—which brought me here to Children’s.

**What types of studies are you currently working on?**

I’m currently working on several studies in the ICU which include studies on sepsis, blood transfusions and acupuncture. One of the sepsis studies is the Genotypes and Phenotypes in Pediatric SIRS and Sepsis (GAPPSS) study with Dr. Jerry Zimmerman. We are testing a device called SeptiCyte that is supposed to be able to quickly detect if patients have infections from sepsis. We are comparing children with bacterial infections in sepsis with those who have similar post surgical symptoms, but do not have sepsis. It’s really exciting because if this device works it could help physicians in the future to diagnose infections much more quickly.

**What do you enjoy most about working at Children’s?**

The people here are really fantastic. The CRSSC group has been really helpful getting me oriented and are fun to work with. I think it’s really great that we have the CRSSC. It gives you resources and you are able to meet other people doing research and you can support one another.

It’s also really rewarding working in clinical research. You feel like you’re making a difference and helping improve medical knowledge. My role has been a nice balance between research, working with data and numbers, and getting clinical exposure working with patients and families.

**What do you like to do outside of work?**

I like to travel and being outdoors—running, hiking, camping. My fiancé and I are going Australia in October for our honeymoon. I’ve been to Europe, Germany and France. My favorite place has been Germany when we went to Oktoberfest, but I have a feeling Australia will be my favorite after we visit there.

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**“Erin has done an amazing job getting acclimated to Seattle Children’s and has quickly become a great asset to the CORE and the Critical Care team. She brought with her a treasure trove of knowledge about research, and has added an in-depth working understanding of critical care research here at Children’s to her wealth of knowledge.”**

—Robert Johnson, MS

**“Erin is a clinical research artist—accountable, always respectful of everyone, and a team player and leader. Her energy and enthusiasm for her work is palpable, and her constant smile and spring in her step is appreciated by all with whom she interacts.”**

—Jerry Zimmerman, MD, PhD, FCCM

-K. Heriot
CRSP Scholars Feature: Abby Rosenberg, MD, MS and Joyce Yi-Frazier, PhD

Abby Rosenberg, medical leader for Seattle Children’s Adolescent and Young Adult Cancer program and an assistant professor in the Division of Hematology-Oncology, wants to help young people survive and thrive after being diagnosed with cancer.

Something unique happens in adolescents and young adults (AYAs): compared with younger and older cancer patients, AYAs have inferior survival rates. AYAs also exhibit more depression, anxiety and post-traumatic stress rates and are less likely to achieve social milestones such as attending college, forming close friendships, getting jobs and having children.

Dr. Rosenberg wanted to figure out a way to combat these poor psychosocial outcomes. Specifically, she wondered if there was a way to teach patients (and families) to be resilient. While there are numerous theories about resilience, there is little consensus about how to define it or, more importantly, how to promote it after a significant health crisis. Furthermore, little is known about how AYAs view resilience.

Merriam Webster defines resilience as “the ability to become strong, healthy or successful again after something bad happens.”

To this end, Dr. Rosenberg undertook a mixed-methods, multisite prospective cohort study of 50 AYAs and their parents. Using interviews and surveys, she measured patient- and parent-perceived resilience plus other psychosocial variables (e.g., coping, psychological distress, quality of life, health behaviors, benefit-finding, hopeful patterns of thought) over the duration of the cancer experience.

Similarly, Joyce Yi-Frazier, a research assistant professor and research health psychologist in the Division of Endocrinology, was working towards altering negative outcomes commonly found in adolescents with type 1 diabetes (T1D). These outcomes often include poor self-care, sub-optimal glycemic control, and an increased rate of depression and distress. She conducted an observational study where she asked newly diagnosed patients and their parents to assess their stress and resilience at the time of disease onset, and then every 3 months during the first year after diagnosis. Her goals were to explore the trajectories of stress, to examine whether resilience associated with those trajectories, and to explore the association of stress and resilience to their health outcomes, self-care, and quality of life. Early results suggest that stress trajectories do vary based on resilience, such that those with higher resilience report lower stress at baseline and across time.

Interests Converge

Drs. Rosenberg and Yi-Frazier separately applied to the Clinical Research Scholars Program (CRSP) without knowing about the other’s project. Their aims were similar: to explore resilience and health outcomes in their patient populations. After they were each accepted into the program, the CRSP review board linked the two together so that they were aware of the other’s CRSP project. They quickly realized that a practical intervention to bolster resilience did not need to be disease-specific. Although their patients have different diagnoses, they face many of the same stressors.

“I think one of the great strengths of our collaboration is the different perspectives we bring to our projects—Abby as a physician has a different take on clinical research than I do as a psychologist—and from our different vantage points with two different patient populations. Our research has become richer as a result.”

—Joyce Yi-Frazier

CRSP Scholars Feature: Abby Rosenberg, MD, MS and Joyce Yi-Frazier, PhD

Joyce Yi-Frazier and Abby Rosenberg (CRSP Scholars 2012-2014)
Collaborative Work on PRISM

This led Drs. Rosenberg and Yi-Frazier to collaborate on designing an age-appropriate intervention for AYAs that was not disease-specific. The result: the Promoting Resilience in Stress Management intervention (PRISM). “Qualitative feedback helped us learn, from the voices of the AYAs, which particular skills they felt would help them cope better with their disease. And that informed our intervention,” explains Dr. Rosenberg. Through focus groups, surveys and interviews, the researchers learned which skills their patients identified as being important for combatting the stressors of being ill. They then grouped the skills into categories.

Drawing on their individual CRSP projects, their research experience prior to the CRSP Program, a thorough literature review and input from experts in the field, they pared the categories down to four “pillars” of specific, teachable skills:

• Stress management
• Goal setting and problem-solving
• Positive reframing of stressors (turning a negative focus into a positive)
• Benefit-finding (finding new meaning, purpose or benefit from difficult experiences)

The intervention consisted of two to four sessions, each under an hour, spaced 2 to 4 weeks apart, followed by one 30-minute wrap-up session. They found that their different patient populations needed different formats of the intervention depending on their status as an inpatient versus outpatient. The first session was always delivered in person; for subsequent sessions, participants could choose in-person, video conferencing or a phone call. The structure of the intervention was intentionally brief. They then did qualitative interviews and surveys to assess patient and parent satisfaction with the intervention. Participants were given summary handouts after each session so that they could practice the skills at home.

PRISM Feasibility, Acceptability Shown

Drs. Rosenberg and Yi-Frazier have completed a feasibility and acceptability study of PRISM with CCTR Faculty Research Support Funds and foundation grant funding from CureSearch for Children's Cancer. Participants reported a high level of satisfaction with the intervention. “Patient feedback about acceptability was similar across both patient populations and was universally positive,” comments Dr. Yi-Frazier. Qualitative feedback included comments like:

• This is so helpful, I wish we had done this sooner.
• I think it’s a good technique to use, definitely. I am teaching my little sister. I am sure it can help her too.

A paper detailing the results from the pilot was published in February (Rosenberg AR, Yi-Frazier JP, Eaton L, Wharton C, Cochrane K, Pihoker C, Baker KS, McCauley E. Promoting Resilience in Stress Management: A Pilot Study of a Novel Resilience-Promoting Intervention for Adolescents and Young Adults With Serious Illness. J Pediatr Psychol 2015.)

To the authors’ knowledge, this is the first report of an intervention designed to promote resilience in AYAs involving multiple types of serious illness. The success of the pilot project led to a randomized controlled trial for AYAs with cancer to evaluate the effectiveness of the PRISM intervention. Dr. Rosenberg is enrolling participants into this RCT with KL2 funding from the Institute of Translational Health Sciences (National Center for Advancing Translational Sciences) and a Pathway to Independence award from CureSearch for Children's Cancer.

Three clinical research associates (Bachelor- or Master-degree level) were trained to deliver the PRISM intervention. The outstanding CRAs were Lauren Eaton, Claire Wharton and Katherine Cochrane. Expert statistical analysis came from Miranda Bradford and Michele Shaffer at the Children’s Core for Biomedical Statistics.

Parents Want Training, Too

The skills-based, cost-effective intervention focuses on the patient, but can also benefit parents and other family members. As part of the feasibility and acceptability pilot, parents were invited to sit in on their child’s sessions. Parents expressed high satisfaction with the patient intervention and told the researchers that they felt that they would benefit from PRISM training as well. Not surprisingly, the teens commented that they would prefer their parents had separate sessions. In response, Drs. Rosenberg and Yi-Frazier created an iteration of PRISM for parents. Providing an intervention for the parents is a way to acknowledge that these diseases affect the whole family. The intervention for parents is being piloted in both patient populations with support from a CCTR Pediatric Pilot Funds award and CureSearch for Children’s Cancer.

CCTR Support

“Clearly, the CCTR has been abundantly
Rosenberg and Yi-Frazier continued from page 3

supportive of our collaborative efforts,” says Dr. Yi-Frazier. “CRSP was instrumental in terms of formally building our collaboration, but also in terms of mentorship and general guidance to junior investigators. It also provided support and time for me to take additional coursework such as observational and interventional statistical analysis, particularly in longitudinal modeling of intervention effects and developmental trajectories.”

Drs. Rosenberg and Yi-Frazier are open to collaborating with clinicians or researchers to adapt the intervention to more patient populations.

As collaborators, Drs. Rosenberg and Yi-Frazier spent considerable time together, and discovered that they have lived somewhat parallel lives, even with regard to extracurricular pursuits. They both have completed Ironman triathlons, although nowadays they joke that their endurance sport is childrearing: Dr. Yi-Frazier has two children, ages 1 and 4; Dr. Rosenberg also has two, ages 7 and 10.

The topic of resilience has garnered a lot of interest within the hospital community. I asked why they think PRISM has resonated with so many people. “Resilience is what we see and feel,” says Dr. Rosenberg. “It’s the lived experience of serious illness.”

“I think it speaks to the ‘hope’ part of Children’s mission,” adds Yi-Frazier. “It’s an accessible concept. It’s a positive spin on being sick, and people can hold onto that.”

-E. Kuwana

Nursing Research Corner

Highlights from the 2nd Annual Nursing Research Symposium

The second annual Nursing Research Symposium, held May 8, featured Keynote Speaker, Dr. Kristen Swanson Dean of Nursing, Seattle University, who gave a presentation title, “Caring, Safety, Workplace Joy, and Patient Satisfaction: Connecting the Dots.” Other speakers included Dr. Hilaire Thompson, UW School of Nursing who provided information about survey methods and Dr. Todd Edwards, UW School of Public Health, who described qualitative methods.

More information and presentations from the event can be found on the Nursing Research web page on CHILD.

PIRC Changes Name to Research Lab Services

To better align with the services offered, the Pathology Integrative Resource Core (PIRC) has a changed its name. PIRC will now be officially known as the Research Laboratory Services (RLS). Operated by the Department of Laboratories, RLS provides an array of laboratory services to support basic, clinical and translational research at Seattle Children’s. Services include:

- Research testing (performed on clinical platforms)
- Specimen processing (centrifugation, PBMC Ficoll, etc.)
- Histology services, including special staining
- DNA/RNA extraction
- Tissue microarrays
- Specimen shipping and storage
- Protocol development and collaboration
- Test development
- Molecular studies

To request services, visit the RLS web page. Questions? Email ResearchLabServices@seattlechildrens.org
CCTR Science Day 2015 Recap

CCTR Science Day this year again was packed to the gills, including center members and affiliates, plus other personnel from Children’s departments.

The day consisted of excellent platform and poster presentations by faculty and staff members. Bonnie Ramsey gave the annual “Spotlight on the CCTR” presentation. She started with a colorful slide of a pie chart showing affiliations for CCTR’s 379 faculty and 241 staff, and noted, “We are a diverse group.” Highlights included the Clinical Research Scholars Program (CRSP) continued support to enable young faculty members to conduct mentored research projects. This year, 4 scholars will be supported by a generous contribution by June Boeing. Congratulations to 2015 awardees: Kacey Leger, Ari Pollack, Katie Nielsen and Dale Lee. Also noted was the Translational Research Ignition Projects Program (TRIPP) seed collaborative partnerships and grant applications. The 14 TRIPP projects have generated grant funding such that the return on original investment is 260%.

Gastroenterologist Phillip Tarr, MD, an expert on sepsis, provided the keynote presentation on the hot topic, “The Premature Infant Gut Microbiome: An Opportunity for Microbial Management.” His research has shown that gut colonization often precedes bloodstream infection in premature infants and sequencing can therefore be used to predict a patient’s deterioration 3 days in advance. “This is the future,” he said. Dr. Tarr is the Melvin E. Carnahan Professor of Pediatrics and Director, Pediatric Division of Gastroenterology and Nutrition at Washington University in St. Louis, Missouri.

Awards for outstanding junior faculty platform presentations went to Alpana Waghmare, MD, Acting Instructor from Infectious Disease, for her presentation, “Molecular epidemiology of human rhinoviruses from a prospective surveillance study in hematopoietic cell transplant recipients”, which focused on how viral load and shedding affects immunocompromised children and Lori Rutman, MD, MPH, Assistant Professor of Emergency Medicine, for her presentation, “Continuous Performance Improvement: How Modification of an Established Asthma Pathway Led to Increased Adherence, Evidence-based Care and Efficiency”. This improvement project resulted in a 30-minute reduction in emergency department length of stay for admitted patients with asthma.

Staff also received awards for their outstanding poster abstracts. Staff awards were earned by Katie Whitlock, MS, from the Children’s Core for Biomedical Statistics, for her poster, “Early Identification of Pediatric Inpatients at Risk for Rapid Clinical Deterioration” and by Connor Mitrovich, BA, from Endocrinology, for his poster, “Quality of Care (QOC) Among Rural and Urban Youth with Diabetes: A Pilot Study.”

CCTR Science Day was organized by the ever-energetic co-chairs Drs. Eileen Klein and Cate Pihoker, and members of the CCTR Science Day committee and CCTR Business Office. Many thanks to the organizers for their hard work that again made Science Day a success!

If you missed Science Day, please see the Archived CCTR Science Day presentations on CHILD.

-E. Kuwana
As a critical care physician, Lincoln S. Smith cares for children who are fighting for their lives. His 20 years of research and clinical experiences have led him to develop a deep interest in how lungs respond to injury, the most common cause of which is infection. Many critically ill children are put on mechanical ventilation to help them breathe—yet this, coupled with infection, can produce more harmful inflammation. He’s been looking in the lungs of mice to gain clues as to what happens in human lungs. “As an undergraduate, I worked in a transplant lab at the University of Wisconsin. That was my introduction to research on inflammation. Inflammation is still a huge frontier in medicine. Dysregulation of inflammatory processes plays a large part in critical illness,” says Dr. Smith.

The research reputation of UW helped draw him to Seattle. His colleague at Children’s, Jerry Zimmerman, introduced him to Tom Martin, an adult pulmonary critical care physician at the VA and UW, whose focus was on lung injury. “Our interests aligned and he was interested in mentoring me, explains Dr. Smith. “It turns out there are only a couple of other places in the country where I could have pursued this research of mapping the complex interactions of age, infections and mechanical ventilation in acute lung injury.”

Acute lung injury (ARDS, for acute respiratory distress syndrome), is when the lungs are beset with inflammation. Sepsis and pneumonia are the most common causes of ARDS in children and adults.

Acute respiratory distress syndrome (ARDS) occurs when proteinaceous fluid builds up in the alveoli in your lungs. More fluid in your lungs means less oxygen can reach your bloodstream. This deprives your organs of the oxygen they need to function. (Source: MayoClinic.org) Mortality from ARDS is improving, but is still as high as 60-80% in some populations.

In order to better define ARDS in children, Dr. Smith and 26 other experts formed a consensus group and worked for 2 years to formulate a new definition and to publish more than 100 pediatric-specific recommendations regarding treatment and research priorities for ARDS. (For more, see Pediatric Acute Respiratory Distress Syndrome: Consensus Recommendations from the Pediatric Acute Lung Injury Consensus Conference.)

His research, funded by a K award (2009-2014), involved creating a juvenile mouse model of ARDS to investigate how the major pathways—inflammation, repair, apoptosis and fluid clearance—differ between children and adults. At the time he started this line of research, there was no juvenile mouse model of lung injury; in fact there were no animal models at all for juvenile lung injury. “And I got lucky in that the phenotype showed a difference between juvenile and adults. I then spent my K award time trying to identify pathways, differences in processes between adults and juveniles,” says Dr. Smith.

Data from his K award research shows that, in mice, when infectious stimuli are combined with mechanical ventilation, the very early responses are much more injurious and cause more inflammation in adults as compared to juveniles. Juveniles resolve the inflammation faster and have a more adaptive, protective response. In humans, postnatal lung development continues until the end of linear growth, usually at the end of puberty. Until this time, there are still genetic programs for growth that cause the lung to repair more effectively. Therefore, there is a different biological baseline network of gene and protein expression in children as compared with adults. “Our goal is to find protective pathways that can be enhanced or injurious pathways that can be inhibited. This would help all patients at risk of dying from ARDS,” elaborates Dr. Smith.

As one can imagine, each of these processes involves complex interactions; there is no singular, linear pathway. Manipulating one pathway may not alter the final outcome. “My maps of these interactions look like ‘exploding stars,’” comments Dr. Smith. “Looking at pathways individually in a complex system is problematic. Each one I’ve look at in isolation has been a dead end. We’ve learned that we need to apply a ‘systems-biology’ approach.”

Working in a mouse model, the caveat is always: Does this apply in humans? This means building

Continued on next page
collaborations between pediatric and adult lung researchers. Since his K award ended, Dr. Smith has transitioned to a physician-educator. Part of his time has been devoted to building a translational research program here. Dr. Smith has created ties to researchers at Children’s Hospital Los Angeles, University of California at San Francisco, and also at international sites. Colleagues at Seattle Children’s such as John McGuire, MD, Reid Farris, MD, MS and R. Scott Watson, MD, MPH, bring a wealth of research and clinical skills. “We are building a strong program here to ask questions of how children differ from adults in terms of responses in the lungs and repair after injury,” says Dr. Smith.

His research now is focusing on translational research and combines bench science, clinical and outcomes research. He is collaborating with Drs. Zimmerman, and UW adult pulmonologists Mark Wurfel and W. Conrad Liles to bridge adult and pediatric investigations, which historically have been separate. “CCTR is invaluable,” says Dr. Smith, in fostering collaborations with other clinicians who can follow up on patients he has cared for in intensive care. “Critical care does not have an outpatient or a follow-up clinic, so collaboration with pulmonologists and others who have these clinics is important to figure out outcomes.”

About 6,000 children (this number excludes preemies) die each year of ARDS, yet very little is known about the burden of disability on kids who survive. Are they able run as well as they could have had they not gotten ARDS? Are their lives shorter? “If we can identify programs of inflammation, repair, apoptosis, fluid clearance, that improve recovery from—or even better prevent—ARDS, we have the potential to prevent deaths or make a substantial improvement in the lives of kids who survive. “We don’t know the real burden of this illness. It’s probably much bigger than what we think it is,” comments Dr. Smith.

Dr. Smith has been at Children’s since 2003, when he started his fellowship here. He appreciates the rich professional collaborations. “The interactions we have with respiratory therapy and nursing are really strong, and we are motivated to ask the right questions and challenge each other in healthy ways that are supportive and that help us all do a better job,” Dr. Smith explains. “The combination of the clinical work, the research resources and life outside of work—it was an easy choice to stay.” He and his family enjoy all the natural features that Washington offers: the Sound, the mountains, the desert. This makes Seattle a great place for him and his wife to raise their two daughters.

Read Dr. Smith’s review paper, Mechanisms of Acute Respiratory Distress Syndrome in Children and Adults: A Review and Suggestions for Future Research. Smith LS, Zimmerman JJ, Martin TR.

-E. Kuwana

Save the Date for the Second Annual Sea for the Future Gala!

Join us for the second annual Sea for the Future Gala! Tailgaters Anonymous for Children’s Guild will hold live and silent auctions along with dancing to raise funds for the Center for Clinical and Translational Research.

Date: Saturday, August 15, 6 p.m. to 10 p.m.
Place: The Piranha Shop, Seattle
Cost: $60 per person or $100 per couple before August 1; $75 and $125 thereafter. Tickets will be on sale soon. Stay tuned for more information.

Contact Megen Strand with any questions.
Upcoming Funding Opportunities

**Academic Enrichment Fund: Deadline June 15**

The AEF supports a wide range of activities, including hypothesis-driven investigations, educational programs, and the establishment and implementation of registries.

Amount awarded is a maximum of $25,000 per individual applicant and up to $50,000 for projects that involve multiple eligible investigators from different divisions or departments.

Visit the [AEF webpage](#) for more information and to apply.

**Pediatric Pilot Funds: Deadline July 15**

The PPF program aims to cultivate exceptional new research and assist in launching new nationally funded research programs with a focus on child health.

Amount awarded per recipient is a maximum of $20,000.

Visit the [PPF webpage](#) for more information and to apply.

**Annual Pediatric Bioethics Conference July 24-25**

The Treuman Katz Center for Pediatric Bioethics will hold its 11th Annual Pediatric Bioethics Conference July 24-25 at the Bell Harbor International Conference Center. This year’s theme is “The Delicate Triangle: Responsibilities and Challenges in the Provider-Parent Relationship.”

To learn more and to register, visit the [Pediatric Bioethics Conference website](#).

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Member News (March - May 2015)

**2015 CRSP Award Recipients**

**Ari Pollack, MD:** Leveraging physicians and user centered design strategies to develop novel clinical information tools

**Kasey Leger, MD, MSc:** Novel markers of cardiotoxicity to in children treated with anthracycline chemotherapy

**Dale Lee, MD, MSCE:** Evaluating the role of dietary additives in Crohn’s disease course

**Katie Neilson, MD, MPH:** Comparing efficacy of modes of non-invasive positive pressure ventilation for preventing reintubation at Instituto Nacional de Salud del Niño in Lima, Peru

**Awards**

**Jennifer Rabbitts MB, ChB** received a Junior Investigator Award for Excellence in Research from the American Pain Society Shared Interest Group on Pain in Infants, Children, and Adolescents.

**Douglas Opel, MD, MPH** has been awarded a career development award from the Greenwall Faculty Scholars Program in Bioethics. Each year three scholars are selected to receive 50 percent salary support for 3 years. The program supports junior faculty research to help resolve pressing ethical issues in clinical care, biomedical research and public policy. His project, “When Parents Refuse or Delay Childhood Vaccines: Implications for Shared Decision-Making,” builds on his previous research.

“In my empirical research, I found that a shared decision-making approach to the childhood vaccine discussion—an approach that invited parents to participate in the decision—was associated with significantly fewer parents accepting all the recommended vaccines by the end of a health supervision visit than if a provider simply told parents what vaccines their child would be getting. That was surprising, and made me realize that shared decision-making, for all its appeal, has limitations. There are clinical situations when shared decision-making just is not indicated. We need a better idea of what those situations are, and with this grant, I hope to accomplish that,” Dr. Opel explains.

**Publications**


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Continued on next page
Member News continued from page 8


Ben Wilfond, MD: Decisions Regarding Resuscitation of Extremely Premature Infants.

Editor’s Note: As space allows, CCTR News will list publications, awards, honors and other relevant activities of center members that are submitted to us at cctr@seattlechildrens.org and meet the following criteria: a) Subject author/co-author recipient or PI has primary membership in CCTR; and b) News is recent (i.e., article published or award granted within the 3 months prior to CCTR News publication date). While we will attempt to print all appropriate notices, submissions are subject to editing due to space limitations.