



Research in Action

A bimonthly e-newsletter from the Center for Injury Research and Prevention at The Children's Hospital of Philadelphia

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Center Joins Global Campaign for Road Safety Awareness and Action



The Center for Injury Research and Prevention (CIRP) at The Children's Hospital of Philadelphia (CHOP) has joined the World Health Organization's Decade of Action for Road Safety 2011-2020. This initiative is dedicated to stabilizing and reducing worldwide road injuries and fatalities by heightening safety awareness at the regional, national, and global level. "Developing nations can benefit from decades of lessons already learned in the U.S.," says Flaura K. Winston, CIRP founder and co-scientific director. "We have much to offer to these countries in terms of basic infrastructure development, such as motor vehicle safety regulations and new car assessment programs, as well as theoretically-driven, evidence-based methods to create a culture of traffic safety."

CIRP's goal for the Decade of Action is to ensure the global community focuses on children. The World Health Organization (WHO) estimates that by 2015 road traffic injuries will be the leading health burden for children over age 5 in developing countries. In a recent resolution, the World Health Assembly urged member countries to prioritize child injury prevention as a major child survival issue. This call to action should help spur child injury prevention programming and financing in member countries. So far, 20 countries have voiced their support.

As its kickoff to the Decade, the Center's [Center for Child Injury Prevention Studies \(CChIPS\)](#) held the Advances in Child Injury Prevention (ACIP) Conference on May 12 and 13 in Lansing,

Focus On: Tom Seacrist, MBE



Tom Seacrist, MBE loves his work. Being a Biomedical Research Engineer at the Center for Injury Research and Prevention (CIRP) at CHOP offers the ideal blend of his interests in engineering, automobiles, and child safety. Through several key studies, he is furthering pediatric injury research.

Seacrist currently oversees the day-to-day operations for the "Pediatric Head and Spinal Kinematics" project, a collaborative effort with Rowan University where researchers are using a custom-built crash sled to test frontal-impact crashes with child and adult volunteers. "We restrain the volunteers with regular seat belts and use the crash sled—designed to mimic a bumper car impact—to simulate a head-on crash," says Seacrist. "The data we collect will be used to design more realistic pediatric crash test dummies, also known as pediatric anthropomorphic test devices, and, ultimately, to improve car safety features and save kids' lives. This project is truly unique because it's the first to study pediatric volunteers in safe, low-speed impacts."

Michigan. Bringing together professionals from industry, government, and research organizations, the conference covered the latest research in occupant safety for children and adolescents on a variety of topics, including crash test dummy design, child restraint installation, and regulatory advancements, such as head impact protection and child restraint performance. Over 90 attendees from 20 organizations heard a dozen presentations from experts at CHOP, The University of Michigan, The Ohio State University, the National Highway Traffic Safety Administration, and TASS Americas. David Champion (pictured above), senior director of Consumer Union's Automotive Test Division, served as the keynote speaker. The conference was made possible with support from Gold Sponsors Toyota Motor Manufacturing of North America and Volkswagen Group of America Inc. and Silver Sponsors Britax Child Safety Inc., Chrysler Group LLC, Diversified Technical Systems Inc. (DTS), General Motors Holding LLC, Lear Corporation, and Nissan Technical Center North America Inc.



[Learn more about Decade of Action](#)

Visit Us On YouTube

You can now access a variety of our evidence-based video resources on YouTube. The Center has three channels: **ChildPassengerSafety**, with a lineup of important child passenger safety (CPS) videos, including a podcast explaining the American Academy of Pediatrics' new CPS recommendations and our popular crash simulations, **teendriversource**, with a wide array of teen driver safety-related segments, including a series for parents called "Communicating With Your Teen About Driving," and **AfterTheInjury**, with videos supporting content found on AfterTheInjury.org, the award-winning website to help children recover after an injury. Video content on all three channels is updated regularly. Be sure to check back frequently.

[Subscribe to the ChildPassengerSafety channel](#)

[Subscribe to the teendriversource channel](#)

[Subscribe to the AfterTheInjury channel](#)

Sharing Our Expertise: Understanding Traumatic Stress in Injured Children

Nancy Kassam-Adams, PhD, the Center's associate director of behavioral research and co-director of the Center for Pediatric

Seacrist is also part of the "Thoracic Mechanics" project, which uses cardiopulmonary resuscitation (CPR) data from CHOP patients to help design better pediatric crash test dummies as well as pediatric CPR manikins. "We use the CPR data to see how a child's chest responds to compression. This will allow us to create dummies that will respond more realistically in a crash where the seat belt crosses the chest," he says.

Seacrist has had the opportunity to travel around the world to share CIRP research, including an August 2010 trip to Japan and Singapore where he gave a presentation at the World Congress of Biomechanics. This premier biomechanical engineering conference draws over 2,000 international attendees, and his talk led to a new role as Principal Investigator for a study sponsored by the [Center for Child Injury Prevention Studies \(CChIPS\)](#) at CIRP. This line of research analyzes the effectiveness of two families of pediatric crash test dummies through impacts in a crash sled.

"The dummies being tested are the Hybrid III, which is most commonly used in the U.S., and the Q-Series, which is common in Europe," says Seacrist. "The goal is to compare responses of the 6-year-old and 10-year-old dummies in a crash to child volunteers of the same age and size. The research findings will potentially lead to more realistic crash test dummies and lives saved."

Seacrist earned his BS and MS degrees in Biomedical Engineering at Catholic University of America in Washington, DC and a Certificate in Epidemiology and Biostatistics from Drexel University in Philadelphia. A member of the CIRP team since 2007, he enjoys the diversity his role at the Center offers. "I can help build a crash sled one day, work with a child volunteer the next day, and travel abroad for a presentation the next," he says. "When there's always something new happening, going to work each day is exciting and rewarding. That's how my experience at CIRP has been."

Winston Joins Johns Hopkins Society of Scholars

On May 25, Flaura Winston, MD, PhD, CIRP founder and co-scientific director, was elected to membership in the Johns Hopkins Society of Scholars. Established in 1967 by the University

Traumatic Stress at CHOP, recently traveled to Vienna, Austria to present her findings on predicting post-traumatic stress disorder (PTSD) risk in children after acute traumatic events at the 12th European Conference on Traumatic Stress. In April she also shared her knowledge in a series of workshops held in five cities across Australia.

Dr. Kassam-Adams and her team are working to better understand the consequences of pediatric injury and develop effective strategies to prevent PTSD in children. With a grant from The National Institute of Mental Health (NIMH) awarded last year, Dr. Kassam-Adams and colleagues from Kent State University, Summa Health System, and The University of Queensland are building a network and international data registry to create predictive tools for child PTSD.

In prospective studies of children's and parents' reactions to traffic crashes and other medical emergencies, Center researchers found that most families experience at least a few acute stress disorder (ASD) symptoms within the first month after injury. Six months later, 1 in 6 still has clinically significant symptoms. To learn more, visit AfterTheInjury.org, the Center's award-winning website devoted to helping children and their families recover after an injury.



Dr. Kassam-Adams in Vienna

Recent Center Publications

Curry AE, Pfeiffer MR, Slopen M, and McVeigh KH. Early Intervention Program Referral and Risk of Developmental Delay by Birth Weight and Gestational Age. *Maternal Child Health Journal*. May 28, 2011 (published online).

He J., Becic E., Lee YC, and McCarley JS. Mind Wandering Behind the Wheel: Performance and Oculomotor Correlates. *Human Factors*. February 2011.

Kassam-Adams N, García-España JF, Marsac ML, Kohser K, Baxt C, Nance M, and Winston F. A Pilot Randomized Controlled Trial Assessing Secondary Prevention of Traumatic Stress

Trustees, the Society honors distinguished former postdoctoral fellows and junior or visiting faculty of the University. A postdoctoral fellow in the Department of Health Policy and Management at the Johns Hopkins Bloomberg School of Public Health from 1994 to 1995, Dr. Winston is now a professor of Pediatrics at the Perelman School of Medicine at the University of Pennsylvania. A fellow colleague, Michael A. Levine, MD, director of the Division of Endocrinology and Diabetes at CHOP, was also inducted into the Society at the ceremony.



Pictured at the ceremony are Flaura Winston, MD, PhD, and Professor Susan P. Baker of the Johns Hopkins Bloomberg School of Public Health.

Center Student Receives Award

Aimee Hildenbrand recently received an award for being an outstanding undergraduate student in Pediatric Psychology from the Society of Pediatric Psychology (Division 54) of the American Psychological Association. She was honored for her research in the field, including her participation in evaluating AfterTheInjury.org, the Center's award-winning website that helps children recover after an injury, and several intervention development projects to promote recovery and adjustment to acute and chronic medical diagnoses. Hildenbrand attends Drexel University in Philadelphia, PA.

Check Out These New Pages on teendriversource.org

To better reflect our understanding of current research and best practice, the teendriversource.org team has added two new pages:

Integrated Into Pediatric Trauma Care. *Journal of Traumatic Stress*. May 18, 2011 (published online).

Recent Center Presentations

Bevans K, Moore W, Barg F, and Leff S. Better Understanding and Developing Tools to Measure Implementation Quality in the Context of a Community-Based Clinical Trial. Society for Prevention Research Conference. Washington, DC. June 2, 2011.

Durbin DR. Booster Seat Public Policy: Past Success, Future Challenges. Assessment in Gaps in Booster Seat Policy. The Centers for Disease Control and Prevention (CDC). Atlanta, GA. May 21, 2011.

Fein J. The Impact of Violence. 2nd Annual City-Wide Community Response Symposium. Philadelphia, PA. May 6, 2011.

Kassam-Adams N. and Marsac M. Bi-directional Influences Between Parent and Child Traumatic Stress Symptoms After Pediatric Injury. 12th European Conference on Traumatic Stress. Vienna, Austria. June 2011.

Kassam-Adams N., Winston F, Kohser K, and Marsac M. Evaluating Strategies for Dissemination of a Traumatic Stress Prevention Website: Online Media and Sponsored Search. 12th European Conference on Traumatic Stress. Vienna, Austria. June 2011.

Kassam-Adams N, Kenardy J, Delahanty D, Palmieri P, Le Brocque R, Nixon R, Meiser-Stedman R, Kohser K, Rork K, and Marsac M. The Child PTSD Prediction Project: An International Collaboration to Create Predictive Tools for Child PTSD Risk After Acute Trauma. Poster presentation at the 12th European Conference on Traumatic Stress. Vienna, Austria. June 2011.

Kassam-Adams N. Secondary Prevention of Child PTSD. 12th European Conference on Traumatic Stress. Vienna, Austria. June 2011.

Lee YC, LaVoie N, Lauper U, and Cianciolo A. Use of a Simulator to Objectively Distinguish Behaviors Between Low-risk and High-risk Drivers. Proceedings of the 6th International Driving Symposium on Human Factors in Driver Assessment, Training and Vehicle Design. Lake Tahoe, CA. June 2011.

Leff S, Hausman A. Better Understanding and Developing Tools to Measure Implementation Quality in the Context of a Community-Based Clinical Trial. Society for Prevention Research Conference. Washington, DC. June 2, 2011.

Leff S. Helping Parents and Children Recognize and Respond Positively to Peer Bullying. 12th Annual Advanced Practice Nurse Conference. Philadelphia, PA. May 12, 2011.

Leff S, Vaughn N, Bevans K, and Thomas N. Preliminary Results

- [Novice Driver Training and Education](#)
- [Driver Ed As Part of GDL](#)

Support Our Center

The dedicated doctors, researchers, and outreach professionals at the Center for Injury Research and Prevention at CHOP are fighting to save the lives of children of all ages. But we need your help. To make a secure, on-line donation, please visit [The Children's Hospital of Philadelphia Foundation Donation Page](#) and select "Center for Injury Research and Prevention" in the drop-down menu. You also may telephone the CHOP Foundation at 267-426-6500. For more information on our research and programs, please visit www.chop.edu/injury.

The Center's Websites

The Center for Injury Research and Prevention
(www.chop.edu/injury)

Keeping Kids Safe in Crashes – English language (www.chop.edu/carseat)

Cómo Mantener a los Niños Fuera de Peligro Durante los Choques – Spanish language
(www.chop.edu/asientos_infantiles)

Philadelphia Collaborative Violence Prevention Center (PCVPC)
(www.phillyviolenceprevention.org)

After The Injury: Helping Parents Help Their Kids Recover (www.AfterTheInjury.org)

Ride Like A Friend
(www.ridelikeafriend.org)

teendriversource.org
(www.teendriversource.org)

of a Violence Prevention Program Conducted in Urban After-School Centers. Society for Prevention Research Conference. Washington, DC. June 2, 2011.

Matthews E. Electromyography Responses of Pediatric and Adult Volunteers in Low Speed Frontal Impacts. Ohio State Injury Biomechanics Student Symposium. Columbus, Ohio. May 22, 2011.

