THE MAGAZINE ENHANCED.

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NEXT ISSUE THE BODY’S FRENEMY

THREATENED BY AN INVADER like the flu virus, the human body marshals an inflammatory response. It’s a vital defense mechanism, but scientists now link inflammation to cancer, COPD and other diseases. More about our foe/friend in the Fall 2012 edition.

Beginnings Bright and Dark
Wendy cried. I drove. Sarah sat in her car seat, confused by Mommy’s tears.

Sarah and my wife, Wendy, had just spent the afternoon with a child psychiatrist. Because there were not enough seats in the room, I had been exiled to the waiting room … to wait. In the car, Wendy told me that the psychiatrist had spent a long hour talking to her while 5-year-old Sarah squirmed in the chair next to her. When he was ready for Sarah, she had long since lost any inclination to pay attention or interact. At the end of the interview, his judgment was brief and to the point: Sarah was autistic. The sobbing started when Wendy got to that part of the story.

Being an academic, I went to the medical literature to understand the causes and the implications of the diagnosis. What I found was a paucity of well-designed studies about autism, at least by my standards as an epidemiologist. And there was an absolute lack of investigation into the risk of autism associated with environmental and lifestyle factors. That was 16 years ago. Since then the situation has improved. Sarah was on the leading edge of an explosion in the incidence of autism. More children will be diagnosed with autism this year than diagnosed with diabetes, HIV and cancer combined. That explosion inspired philanthropic and government funding that has fueled a concomitant increase in research.

Wendy and I soon learned that the word autism was always accompanied by the descriptor “an incurable disease.” We never accepted the implication that all was hopeless, and Sarah has always surpassed the expectations of naysayers. We also learned that the label of autism is much more nuanced than when Leo Kanner, the Hopkins psychiatrist, first described the condition. Clinicians and scientists now recognize that there is a spectrum of autism-associated disorders. Since Sarah’s initial diagnosis, many more labels followed, a veritable alphabet soup of abbreviations and eponyms. There is no biopsy, no digital readout to diagnose autism—a challenge for parents trying to cope as well as for researchers and clinicians studying the disease, predicting outcomes and designing treatment programs.

From that initial foray into the literature, I was convinced that autism research needed an infusion of epidemiology and biostatistics. My background was not in child development, but I did what I could, most notably by welcoming faculty and postdoctoral fellows who study these issues into my summer course in clinical research.

Wendy died in 2006, and the only easy thing about that tragedy was deciding how to memorialize her. We created the Wendy Klag Fund to support PhD students who are studying developmental disabilities in children. Through the generous contributions of family, friends and the Hopkins community, we have been able to support graduate students who have undertaken challenges ranging from the prevention of bullying of children with developmental disabilities in Maryland schools to assessing the prevalence of childhood disabilities in southern Nepal.

This is the first time that I have written about Sarah and the challenges she faces. It’s hard for me to write about such a personal issue, but it is time. As I was finishing this column, an email popped up from the CDC with the latest data: One in 88 U.S. children has an autism spectrum disorder, a 78 percent increase from 2002 to 2008. These data were generated in part by Li-Ching Li from our Department of Epidemiology and Rebecca Landa from the Kennedy Krieger Institute, and are an incredibly powerful affirmation of the public health impact of this condition. It’s not just a U.S. issue, of course. Soon after World Autism Awareness Day (April 2), I attended a UN panel discussion, sponsored by Autism Speaks and the governments of Bangladesh and Qatar, on the importance of international collaborations in unraveling the autism puzzle.

Even though our journey with Sarah had a very bleak beginning, it has been one long opportunity to show Sarah how much we love her, and vice versa. Sarah recently celebrated her 21st birthday with her first (very small!) drink of sake, is taking her first college-level course and looks forward to the future. She is at the forefront of adults with autistic spectrum disorders who will need services and support throughout their lives.

There are big questions about autism that need to be answered. Among others, we need to know whether the incidence of autism is truly increasing or if other conditions are being relabeled; what environmental factors contribute to the increasing prevalence; are there gene-environment interactions that increase risk; and, what policies should guide entitlement programs. To advise me on how best to resolve these questions, I convened a group of faculty from our School, the School of Medicine and the Kennedy Krieger Institute. Their advice is to take a multidisciplinary approach, examine the problem from every angle, create infrastructure to share resources and facilitate collaboration, and give them the resources to tackle this issue.

It is time to do just that. Children—and now young adults—can’t wait.
David Abrams, PhD, professor, Health, Behavior and Society (HBS), has been named a Fellow by the American Academy of Health Behavior.

Chris Beyrer, MD, MPH ’90, professor, Epidemiology, and director of the Center for Public Health and Human Rights, received an honorary doctorate in health science from Thailand’s Chiang Mai University. The degree was conferred by Her Royal Highness Princess Maha Chakri Sirindhorn.

Robert Black, MD, MPH, Edgar Berman Professor and chair, International Health, received the Raulin Award for Outstanding Contributions to Science from the International Society for Trace Element Research in Humans.

Terry R. Brown, PhD, professor, Biochemistry and Molecular Biology, received the Distinguished Service Award from the American Society of Andrology.

Nilanjan Chatterjee, PhD, adjunct professor, Biostatistics, received the 2011 COPSS Presidents’ and Snedecor awards at the Joint Statistical Meetings.

Kevin Frick, PhD, MA, professor, Health Policy and Management (HPM), received the Distinguished Service Award from the Vision Care Section of the American Public Health Association (APHA).

Andrea Gielen, ScD ’89, ScM ’79, professor, HBS, and director of the Johns Hopkins Center for Injury Research and Policy, has been named the 2012 Research Laureate by the American Academy of Health Behavior.

Diane Griffin, MD, PhD, chair, W. Harry Feinstone Department of Molecular Microbiology and Immunology, delivered the George Khoury lecture at NIH in December.

D. A. Henderson, MD, MPH ’60, Dean Emeritus, received a gold medal award from the National Institute of Social Sciences.

The HPTN 052 HIV prevention trial was named the 2011 Breakthrough of the Year by the journal Science. Two of the 13 HPTN study sites were led by Bloomberg School professors: David Celentano, ScD ’77, MHS ’75, the Charles Armstrong Chair in Epidemiology (Thailand site); and Taha Taha, MBBS, PhD ’92, MPH, professor, Epidemiology (Malawi site).

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Intersexions, the HIV drama series co-produced by Johns Hopkins Health and Education in South Africa with USAID PEPFAR funding, received an International Peabody Award in April.

Alain Labrique, PhD ’07, MS, MHS ’99, assistant professor, International Health, was named a 2011 Top mHealth Innovator by the mHealth Alliance and the Rockefeller Foundation for developing the mCARE project with co-investigators Christian Coles, PhD ’00, MPH, MA, Luke Mullany, PhD ’05, MHS ’02, and Elizabeth Jordan, DNSc ’04, MSN.

Philip Leaf, PhD, professor, Mental Health, was presented with the Agus-Shehan Interfaith Leadership Award from the Central Maryland Ecumenical Council.

Orin Levine, PhD ’94, professor, International Health, was elected president of the American Society of Tropical Medicine and Hygiene Committee on Global Health.

W. Henry Mosley, MD, MPH ’65, professor emeritus, Population, Family and Reproductive Health (PFRH), received the 2011 Carl Taylor Lifetime Achievement
Award in Recognition of Outstanding Lifetime Achievement in International Health from APHA’s International Health Section.

Kate O’Brien, MD, MPH ’94, professor, International Health, and Brian Caffo, PhD, MS, associate professor, Biostatistics, each received a Presidential Early Career Award for Science and Engineering, the highest honor bestowed by the U.S. government on science and engineering professionals early in their research careers.

Elise T. Pas, PhD, MA, assistant scientist, Mental Health, received the Association of Positive Behavior Support’s Ted E. Carr Initial Researcher Award.

Keshia Pollack, PhD ’06, MPH, assistant professor, HPM, was one of 50 people statewide to be named by The Daily Record in 2011 as one of Maryland’s Very Important Professionals Under 40.

Ciro de Quadros, MD, adjunct associate professor, International Health, won a BBVA Foundation Frontiers of Knowledge Award for Development Cooperation.

David Sack, MD, professor, International Health, received the Esther Pohl Lovejoy, M.D. Leadership Award from the Oregon Health & Science University. He also shared with his brother R. Bradley Sack, MD, ScD ’68, MS, professor, International Health, the Donald Mackay Medal of the American Society of Tropical Medicine and Hygiene. R. Bradley Sack also received the Richard T. Jones Distinguished Alumni Scientist Award from the Oregon Health & Science University.

Freya Sonenstein, PhD, professor, PFRH, and director, Center for Adolescent Health, was presented with the Researcher of the Year Award by the Healthy Teen Network.

Peter C. van Dyck, MD, MPH, senior associate, PFRH, was awarded APHA’s 2011 Martha May Eliot Award.

Peter Winch, MD, MPH ’88, professor, International Health, received the 2011 Dory Storms Child Survival Recognition Award from the CORE Group.

Barry Zirkin, PhD, professor, Biochemistry and Molecular Biology, was elected as Fellow of the American Association for the Advancement of Science.

The grand prize went to Ashima Khanna for Handwashing Buddies (far left) featuring Cambodian school girls. Among the finalists: Clint Hall with Urban Protected Water Source, Uganda (left); and Nicola Martin with Mama’s Helper, Tanzania. Laura Lamberti won with Bath Time in Bihar, India (right).
A Radical Notion (continued from page 29)

to Wang: Given that she was a full-term baby nurtured by family and mentors, her ability to overcome the deleterious effects of the Cultural Revolution begins to make sense.

**AT A MARCH 21 SYMPOSIUM** on the Future of Child Health that marked the occasion of Wang’s assuming her named professorship, a dozen distinguished colleagues (many of them former teachers) gathered from around the country in Sheldon Hall to honor her achievement and give mandate—just as her parents had done a half-century earlier.

Joseph Brain, a professor of environmental physiology at the Harvard School of Public Health who mentored Wang when she was a research fellow there, sought to involve her in a couple of big, important topics: “The first,” he said, “has to do with children who grow up with exposure to toxic metals.”

He described his department’s efforts to develop a birth cohort focusing on early exposure to toxic metals: The group is collecting maternal and cord blood from mother-infant pairs in northeastern Oklahoma where families live next to mountains of mining waste containing lead and zinc. Brain’s related animal studies demonstrate that anemia (iron status) increases lead uptake. The take-home message: Treating anemia could reduce the risk of brain damage by lead poisoning.

“One of the things we’d like to talk to Xiaobin about,” he said, “is how can we use that birth cohort, and apply some of the methods, insights and technology that she has?”

Sitting primly in the front row, wearing a petite white suit and butter yellow top, Wang appeared a genial force of nature, as likely to sweep people up as to be swept up. (“After you talk to her,” asks a colleague, “don’t you feel like your hair has been blown straight back?”)

As is her habit, she smiled easily, often nodding in the affirmative. Hailed by all as an indefatigable researcher and frequently described as a doting mother of her twin teenage sons, Wang was ready to accept their challenge. Her agenda, big and broad, is inclusive, extending beyond one person, institution or discipline.

“We have heaped enormous expectations on her,” Bernie Geyer cautioned the crowd during an affectionate introduction of his former student. “As her colleagues, students and friends, how do we help her to be successful?”

Wang was reflective: “My most challenging and difficult periods turned out to be my most productive and creative periods. I don’t underestimate the challenges before me. With interdisciplinary colleagues down the hall, and collaborators across the street, this is the right place for me now to leverage all the tremendous resources for the best chances of success and for translation.

“That’s my big dream.”

A Path Toward Hope (continued from page 35)

**MEN BEAT ON DRUMS AND SING.**

They lead a procession late Friday afternoon at the old fairgrounds on Whiteriver’s outskirts. “The dressing,” a key event in a girl’s sunrise ceremony, is about to begin. People from the godparents’ camp are dancing and walking to the camp of the young girl. Cars, trucks and dancing raise a powdery dust that envelops the ceremony in a cloud, made orange by the late afternoon light.

The men sing in waves of rising volume and shifting pitch as they file into the girl’s camp. A cell phone ringtone suddenly erupts but is quickly drowned out by the music. Some people stand on dusty white benches to get a better view.

The singing stops as medicine man Harris Burnette explains the ceremony’s journey in Apache. Before him lies a blue tarp covered with an elaborately beaded buckskin top, eagle feathers and traditional jewelry. A young girl in a white dress stands in front of him.

Her godmother dresses her in the buckskin top, patiently attaches the traditional jewelry, ties an abalone shell on the girl’s forehead and affixes a single white eagle feather to the back of her head as children play in the dirt and people snap cell phone pictures.

The sun starts to sink below the mountains. The people dance and sing with the young girl’s family, wishing her hope for a pure and untroubled future.

At the ceremony’s end, everyone in the crowd turns around once in a clockwise direction, a rapid sweep of the four sacred directions of the Apache and an implicit acknowledgment of their sacred mountains and the beautiful land around them.

Francene Larzelere-Hinton makes her revolution and explains, “It’s our way of saying Amen.”
A Memory for the Future

A trail of fire and sparks stabbed the night sky. I had fired off either a Roman candle or a bottle rocket during a backyard Fourth of July party many years ago. Fire. Explosion. Loud noise. Smoke. For a 7-year-old boy, those are fun’s most satisfying ingredients.

For the first time, I had set off fireworks myself. I felt a surge of pride and leaned against the charcoal grill in which my dad had cooked the evening’s hamburgers and hot dogs. Searing pain shot through my arms. My parents rushed me to the hospital. The party was over.

At some point while we were pulling together our special section on youth and public health, this story came back to me. A moment from childhood, a flash of experience, a sudden transformation of joy into something else. How quickly a young life can shift. Sensing parallels with the section’s topic, my brain unearthed the memory and brought it to the fore.

We call the section “Beginnings, Bright and Dark” because it best reflects the theme. Across cultures, youth represents promise, a future of possibilities. That’s what all parents want for their children. Yet reality sometimes delivers something quite different.

The stories in our special section look into some of life’s darkest corners: child sexual abuse, adolescent suicide, childhood obesity and early origins of chronic disease. These are manifestly difficult issues, topics most people would rather not think about.

Fortunately, many public health experts do not shy away from a challenge. They push the concept of prevention toward the earliest possible opportunity to make a difference. Researcher Elizabeth Letourneau confronts conventional wisdom about child sexual abuse with myth-exploding evidence. Xiaobin Wang untangles incredibly complex threads that link a child’s in utero environment to his or her risk for hypertension or diabetes decades later. Youfa Wang tackles the expanding global childhood obesity epidemic. And White Mountain Apaches collaborate with our School’s Center for American Indian Health to prevent youth suicides.

In late March, I was fortunate enough to travel to the White Mountain Apache Reservation in eastern Arizona and see firsthand their remarkable efforts. When I spoke with tribal chairman Ronnie Lupe, he said, “We live and breathe knowing there is tons and tons of work to be done yet.”

When it comes to ensuring the best possible future for our children, that’s true for all of us.

BRIAN W. SIMPSON
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Letters to the Editor

A Stronger Disaster Response
I value Christine Grillo’s article (“Fall and Rise,” Fall 2011] on our unprepared public health community in the face of disaster. As a student studying public health, I believe we could better respond to a situation like 9/11 with more government funding to train health professionals and coordinate the activities of agencies and institutions.

We must abandon the notion of public health workers sitting behind a desk doing policy and administrative work. They have the power to improve the well-being of our citizens.

Jane Ye
Berkeley, California

Awaiting Part Two
I am eager for the results of the follow-up study (“Weight Counseling in Black and White,” Spring 2011]. I wonder if the time allotted to providers during an office visit actually plays a part in the lack of or insufficient weight counseling.

Due to my patient demographic (U.S. Coast Guard members at a military outpatient clinic), I am not faced with that issue. However, smoking cessation counseling is equally important. When you constantly remind patients who smoke about the cardiac risk factors and the high likelihood of lung cancer and pulmonary issues, and the vast majority responds with a nonchalant attitude, it can be discouraging.

Temitope A. Omoniyi, PA-C
Physician Assistant, U.S. Coast Guard Headquarters Clinic
Washington, D.C.

A Call for Road Safety Research in Tanzania
The article “International Health at 50” [Fall 2011] was very inspiring. The International Injury Research Unit (IIRU), led by Adnan Hyder [associate professor, International Health], attracted my attention.

Road traffic accidents in Tanzania are a great public health challenge, causing many deaths, injuries leading to disabilities, and, ultimately, to economic losses. Technological and economic developments have brought many motorcycles to both rural and urban areas, and motorcycle-related accidents account for a large portion of all accidents.

My wish is to have the IIRU help our country to address all facets of the problem.

Eliudi S. Eliakimu, MD, MPH ’10
Dar es Salaam, Tanzania

A Good Walk
What a wonderful and inspiring story (“Walk with Me,” Technology Issue 2012]. I’ve known Sheila Fitzgerald [associate professor, Environmental Health Sciences] for years and was moved last year when she was able to participate in the School’s Convocation. We all cheered when she walked on the stage for the first time to sit among her colleagues. She truly rocks!

Janice Bowie, PhD ’97, MPH
Associate Professor, Health, Behavior and Society
via Magazine Comments

Enthralled? Appalled? Send us your comments: editor@jhsph.edu.
Like all grandparents, an Afghan woman and a Pakistani man pass along more than family stories and their hair color. Scientists are discovering how harsh environments in early life can influence chronic disease risk in adults and even their children’s children. (See page 24.)

Photos: Shehzad Noorani