

SCIENCE SQUAD

We all know that Portland is a great place to be a parent, but it's also a hub of innovation in healthcare and scientific research. Here are three PDX parents making a big impact in those fields.

BY ALICE CALLAHAN, PH.D. PHOTOS BY SUNNY MANCUSO

You've been there: wrestling with the car seat, beads of sweat dripping on the owner's manual as you pull at belts and adjust angles, trying to install it correctly.

If you've ever been frustrated by this job, you'll want to meet Dr. Ben Hoffman, who has installed about 10,000 car seats in the last 20 years. He is a professor of pediatrics at OHSU, but he sees his role as reaching far beyond the clinic walls. That's why, as a certified Child Safety Passenger Technician, he'll offer to climb into the back of your car, stale crackers and dried raisins and all, to check your car seats.

Hoffman has always seen pediatrics as more than just medicine. To him, the field is about social justice, a way to advocate for vulnerable children. As a pre-med student at the University of California at Berkeley, he majored in anthropology, and, in his freshman dorm, met and fell in love with Jane Kim.

They both graduated from Harvard Medical School, planning a wedding between exams and clinical rotations, and completed their pediatrics training at the University of Washington. (Dr. Jane Kim-Hoffman is now a pediatrician at the Doernbecher Pediatrics Westside clinic.)

After residency, the couple went to work with the Indian Health Service in rural New Mexico, where Hoffman found his passion for car seat safety. "There were five straight nights when there were kids who were critically injured in motor vehicle crashes," he said. None were wearing seat belts or buckled into car seats. "I got

BEN HOFFMAN, M.D.
DAD, PEDIATRICIAN
AND CAR-SEAT HERO



Common car-seat installation errors, according to Dr. Hoffman's research:

- Harness too loose
- Retainer clip too low
- Use of aftermarket product not approved with seat
- Harness too high
- Caregiver not knowing how to adjust the harness
- Car seat installed too loosely
- Angle of car seat incorrect
- Safety belt used but not locked
- Incorrect spacing between car seat and vehicle front seat

angry enough that I was spurred to action." Hoffman worked with community leaders, and together, they doubled car seat and seat belt use in kids in a year.

The Kim-Hoffman family moved to Oregon and OHSU in 2011. By then, they had three kids in middle and high school, so making the move to Portland was a family decision. "The really cool urban vibe that Portland has is something that we've all loved, and I think that the kids especially appreciate it. That and we love to eat really good food," Hoffman said.

Those kids are now nearly grown. Emma, 21, and Noah, 18, are both away at college. Isaac, 16, is a student at Lincoln High School. None want to study medicine, not for lack of admiration for their parents' profession, but because they each have their own passions. Plus, "none of them can stand the sight of blood," Hoffman said.

Hoffman continues his mission to make the world a safer place for kids. He led a study published in April 2016 that checked car seats for newborns before they went home from OHSU's labor and delivery unit. That study found that a whopping 91 percent of parents made at least one serious car seat error. He encourages families to take advantage of the free car seat checks held at Doernbecher Children's Hospital and other organizations, but he's also working with car seat manufacturers to make seats easier to use so that mistakes are less common. That's a mission we can all get behind.



KeyBank  Plaza

1844 SW MORRIS

GATE 2

Dr. Hoffman's favorite quote:
"It is easier to build strong children than repair broken men."
(widely attributed to Frederick Douglass)

Car seat safety clinics are offered by hospitals, fire stations, and other organizations around the region. Find a listing of all car seat safety clinics in Oregon at oregonimpact.org/car-seat-resources.

ELINOR SULLIVAN, PH.D.
 BRAND-NEW MOM,
 SCIENTIST AND ANIMAL LOVER

It started in Eugene with a bunch of ducks. No, we're not talking about college sports. We're talking about a budding researcher, growing up in the Willamette Valley, who took her observations of her family's flock of 30 ducks very seriously. "In the spring when they were nesting, I had a duck log, so I would track all of the ducks – where they were nesting, and the number of eggs," Dr. Elinor Sullivan explained.

It was that love of animals and sense of curiosity that led Sullivan to a career in science. She earned her bachelor's degree at Willamette University and her Ph.D. at OHSU, and she now runs her own research program at OHSU and is an assistant professor of biology at University of Portland. She's also a brand-new mom, and she talked with *PDX Parent* about her work while breastfeeding and snuggling her daughter, Lily, now 4 months old.

A major focus of Sullivan's research is how a mother's nutrition during pregnancy can affect the brain development and behavior of her kids. Most of her studies have been in non-human primates, so more research is needed to see how it translates to humans. But so far, she has found that when pregnant mothers eat a high-fat diet similar to the average American diet, their offspring are more anxious and spend more time alone rather than playing with peers compared to those whose mothers ate a low-fat diet. Those effects are more pronounced when the mother was obese during pregnancy.

Sullivan is quick to say that she doesn't think her research should lead moms to feel more guilt or stress. Instead, she calls for better food labeling and

access to whole foods. "We need to be able to provide pregnant women of all socioeconomic classes with healthy food," she said.

Sullivan doesn't actually recommend a low-fat pregnancy diet, but rather that expecting moms focus on getting more omega-3 fats from foods like low-mercury fish, nuts, whole grains and avocados, as these are good for a baby's brain development. And balance is key. "At some point, it's okay to eat ice cream. It's okay to relax and eat the foods we like. We just want to paint a picture where the majority of the time, you're eating a healthy diet," she said.

The ethics of animal research can be a contentious topic. Sullivan is a vegetarian and the same animal lover that she was as a child, and she thinks this debate helps to ensure responsible care of research animals. She even interrupted her own baby shower to check on a sick monkey. "They're your constant responsibility, and you have to take it seriously," Sullivan said. "It's weekends, it's evenings, it's middle of the night. You have to drop everything to make sure you allow those animals to have the best possible care."

That sounds like good training for parenting. Sullivan's current challenge is transitioning back to her full-time jobs as college professor and scientist, while also juggling the new demands of motherhood.

My Pregnancy Plate

Choose large portions of a variety of non-starchy vegetables, such as leafy greens, broccoli, carrots, peppers or cabbage.

Choose small amounts of healthy oils (olive and canola) for cooking or to flavor foods. Nuts, seeds and avocados contain healthy fats.

Choose a variety of whole fruits. Limit juice and dried fruits. Fruit is great for snacks and dessert, too.

Aim for at least 30 minutes of walking or another physical activity each day.

Choose 2 to 3 servings of nonfat or 1% milk or yogurt (cow, soy or almond). A serving is 8 oz. Choose yogurt with less than 15 g of sugar per serving.

Drink mainly water, decaf tea or decaf coffee and avoid sugary beverages.

Choose protein sources such as poultry, beans, nuts, low-mercury seafood, eggs, tofu or low-fat cheese. Limit red meat and avoid cold cuts and other processed meats.

Choose whole grains, such as whole wheat bread or pasta, brown rice, quinoa or oats and other healthy starches like beans, lentils, sweet potatoes or acorn squash. Limit white bread, white rice and fried potatoes.



Dr. Sullivan's biggest wish for improving infant and maternal health? Paid family leave for everyone.

“By having an extended paid family leave, it gives you the opportunity to provide that child with the best possible care in the early perinatal period, when development is really happening. I think that could have such a huge impact on the future.”

When Dr. Serene Perkins decided to go to medical school, she thought her love of kids would lead to a career in pediatrics or family medicine. But in medical school, she fell in love with surgery.

SERENE PERKINS, M.D., FACS
MOM, SURGEON AND
CANCER FIGHTER

"I would be in the operating room, watching surgeries and participating in them, and it was like hours could go by. I didn't even realize that all of this time had gone by, and I'm still standing there, and still involved and still completely engaged," she told *PDX Parent*.

Perkins' two children, Elijah and Tara, were both born during her surgery residency training in Philadelphia. As she remembers it, she was the first surgery resident to have babies in the history of her program. "I know all about what it means to carry a child and be working very, very heavy hours," she said. "They were very supportive, and I think it paved the way for others to balance having babies with training." Surgery has traditionally been a male-dominated field, but Perkins says that's changing, as more female surgeons are challenging the status quo.

The walls of Perkins' office at the Legacy Research Institute are covered with pictures from India and Pakistan, where she worked as a surgeon for three years after finishing her residency. Her children were 7 months and 3 years old when they moved there. "My dream was actually that I wanted to be able to be a surgeon to people who would never have had the opportunity to be treated by a surgeon. I wanted to really be a doctor to the poor." During that time, Perkins started the International Surgery Program at OHSU, which facilitated training exchanges for surgeons and medical students between OHSU and a large hospital in Lucknow, India. That program developed into OHSU's Global Health Advocacy Program in Surgery, which has expanded to other parts of the world. Perkins moved to Legacy as a surgical oncologist in 2011.

"If we can make the path from when a person first recognizes that they need healthcare services to the point at which their issue is resolved – if that whole process can be made more smooth with the least bumps in the road ... I would just love to be able to see that in my lifetime."

As busy as she is with her career, Perkins also makes time with her children a top priority. "I absolutely try my best to be there as much as I possibly can, because these years are not going to come back, and I want to take full advantage of them," she said. Elijah, 13, and Tara, 10, are both students at Cascade Heights Public Charter School.

After a divorce, Perkins shifted the focus of her career away from the operating room and towards research, which gives her a more predictable and flexible schedule. She's grateful that Legacy was so supportive of this transition, and now that her kids are a little older, she's starting to add more surgeries to her schedule again. "That's the way it should be when people encounter life changes. To have that flexibility in the workplace is something that is very precious to me," she said.

As Director of Surgical and Clinical Research, Perkins now oversees countless clinical trials and other research projects at Legacy. She is also program director of Legacy's Tumor Bank, where cancer patients can donate tumors removed in surgery, so that researchers here in Portland and around the country can study how to better fight cancer. ■

Alice Callahan, Ph.D., is a health and science writer and the author of *The Science of Mom: A Research-Based Guide to Your Baby's First Year*. She lives with her husband and two kids in Eugene.

Sunny Mancuso is a family and children's photographer based in Hillsboro who specializes in capturing happiness, authentic moments, and storytelling through images. See more of her work at sunnymancusophotography.com.

