Special Delivery
A Focus on Obstetrics
Dear Friends,

Many of you first entered the doors of Lucile Packard Children’s Hospital as expectant or new parents, and it is a privilege to have helped you welcome the newest members of your families. You may hear echoes of your own family’s story in this issue of Packard Children’s News, which highlights obstetrical care, research, and training at Packard Children’s and the Stanford University School of Medicine. Whether your family’s pregnancy and delivery were relatively routine—or anything but—we are honored to have served you during those important moments.

From the initial planning for the children’s hospital, Lucile Packard felt that expectant mothers and their babies should be cared for under the same roof—an unusual and innovative idea at the time. Today, Packard remains one of only a few children’s hospitals in the country that are fully equipped to care for both mothers and newborns, and we count this among our greatest strengths.

Each year, we see nearly 5,000 expectant mothers at Packard Children’s, plus many more through our regional network of other Bay Area hospitals. In addition, we strive to advance obstetrical research and training to improve the standard of care for expectant mothers everywhere.

Thank you for your continued partnership and trust in our work, which makes all this possible.

Sincerely yours,

David Alexander, MD
President and Chief Executive Officer
Lila Packard Children’s Hospital recognizes that a healthy start for children begins with outstanding care for expectant mothers. The following stories of four local women, each of whom passed through the Hospital on one day this spring, provide a glimpse of how Packard Children’s advances care for mothers and babies alike, and touches the lives of hundreds of families each and every day.
Michelle Craig, Sunnyvale

On the second floor, in the Labor and Delivery Unit, Michelle Craig has just given birth to her first child, Avery, a healthy baby boy. She and her husband, Mike Horowitz, are ecstatic, proud—and relieved. Avery’s birth is a happy and long-awaited ending to a harrowing journey.

Two months prior, Michelle was wrapping up her workday at Google when she suddenly began bleeding profusely. Seven months pregnant, she was suffering a severe hemorrhage, and she was rushed to Packard Children’s. Until that day, Michelle’s pregnancy had been completely uneventful. The bleeding occurred without any warning, putting both her life and the life of her baby in danger.

Michelle’s care team stopped her early contractions and diagnosed her with placental abruption, in which the placenta separates prematurely from the uterus. She had lost almost a liter of blood, an unusually high volume even compared to other high-risk cases seen at Packard Children’s.

Based on the severity and sudden onset of the hemorrhage, Michelle’s doctors worried that the risk of another incident occurring without warning was too great for her to go home, and would pose too much danger to her and the baby. There was no telling what might happen if she didn’t make it back to the hospital in time.

Michelle’s care team stopped her early contractions and diagnosed her with placental abruption, in which the placenta separates prematurely from the uterus. She had lost almost a liter of blood, an unusually high volume even compared to other high-risk cases seen at Packard Children’s.

“Michelle’s case highlights the delicate line we walk in high-risk obstetrics, dealing with two lives,” says Yasser El-Sayed, MD, her obstetrician and associate chief of maternal-fetal medicine. “Our ability to diagnose, much less control, what will happen with a developing life is actually quite limited. Given our inability to predict what would happen, we opted to keep her in the hospital for the duration of her pregnancy.”

“We walk a delicate line in high-risk obstetrics, dealing with two lives. Our ability to diagnose, much less control, what will happen with a developing life is actually quite limited.”

—Yasser El-Sayed, MD

Michelle’s care team stopped her early contractions and diagnosed her with placental abruption, in which the placenta separates prematurely from the uterus. She had lost almost a liter of blood, an unusually high volume even compared to other high-risk cases seen at Packard Children’s.

“Michelle’s case highlights the delicate line we walk in high-risk obstetrics, dealing with two lives,” says Yasser El-Sayed, MD, her obstetrician and associate chief of maternal-fetal medicine. “Our ability to diagnose, much less control, what will happen with a developing life is actually quite limited. Given our inability to predict what would happen, we opted to keep her in the hospital for the duration of her pregnancy.”

“The doctors were very clear that Michelle was in a precarious situation,” recalls Mike. “It was hard for me to even leave her side, and any phone call from her nearly gave me a heart attack because I feared the worst.”

But as Michelle points out, they all expected the baby to be born soon. “I had no idea how long my hospital stay would end up lasting,” she adds.

Days turned into weeks, then into months. In total, Michelle endured 66 long days at Packard under careful watch. To break up the tedium, Mike visited her three times a day, bringing her restaurant meals, wheeling her to the roof for fresh air, and trying to keep up her spirits. The nurses gave them quick training on infant care, since Michelle’s hospitalization prevented them from attending classes to prepare for their baby’s arrival.

Thanks to close monitoring by the high-risk obstetrics team, Michelle was able to carry Avery to full term. He weighed in at a solid 8 pounds, 4 ounces.

“We’re totally overwhelmed,” says Mike, after Avery’s long-awaited arrival. “It was a long road, from the first night we spent here, worrying. He’s absolutely perfect—10 fingers and 10 toes—and huge.”

Michelle Craig, (previous page) and Mike Horowitz welcomed their first child, Avery, at Packard Children’s after Michelle weathered a two-month hospital stay during her pregnancy. Now a healthy 5-month-old, Avery Horowitz is growing quickly.

Leslie Ballinger, Woodside

Down the hall, just outside the Neonatal Intensive Care Unit (NICU), Leslie Ballinger is trying to compose herself. A loyal donor to Packard Children’s, Leslie is touring the Hospital with a friend who she hopes will also become a supporter. But when their tour arrives at the NICU entrance, Leslie can’t bring herself to go in. Even after 23 years, it’s too difficult for her to be surrounded by fragile newborns and beeping monitors.

In 1988, Leslie’s first son, Court, was born at Stanford Hospital, three months premature. During her pregnancy, Leslie had been diagnosed with HELLP syndrome, a complication of preeclampsia (pregnancy-induced high blood pressure). Her baby arrived much earlier than expected and with little warning. Court spent his first eight weeks of life in the NICU. That he survived at all was remarkable.

Leslie and her husband, Doug, still vividly remember the constantly beeping monitors and the glaring lights of the NICU. In those days, parents often were not allowed to have contact with their premature babies. The first time Court could be held was on Doug’s watch one evening—at six weeks of age.

A lot has changed since then, notes David Stevenson, MD, the Harold K. Faber Professor in Pediatrics. There are better diagnostic tools, monitors, and treatments. Lighting in the NICU is now cycled to replicate day and night, parents are encouraged to touch, hold, and
He began to struggle. It took him longer than other and active toddler. But as he started grade school, he learned to crawl and walk later than other children, but overcame many of the muscular difficulties. He learned to talk to their babies, and every effort is made to give the fragile infants more moments of peaceful rest.

As a child, Court was diagnosed with cerebral palsy, an eye condition called strabismus, and learning difficulties. He learned to crawl and walk later than other children, but overcame many of the muscular issues associated with cerebral palsy and was a happy and active toddler. But as he started grade school, he began to struggle. It took him longer than other

students to do the same math problems. And he needed speech therapy for an awkward stutter that made him shy and nervous around others. As a teenager, his social anxiety made it difficult to build friendships, and he had a negative view of what he could accomplish in life.

Leslie can still remember the frustration and pain of seeing her child struggle. There was little in the way of support for parents raising children with special needs and trying to navigate complicated services. To ensure that better follow-up care and coordination were available to other families facing similar challenges, Leslie and Doug supported Preemie Graduate Services at Packard, which helped parents access continued care for children born prematurely.

In 2004, the Ballingers, along with Leslie’s parents, Ann and Bill Swindells, took their investment one step further by establishing the Ballinger-Swindells Endowed Professorship in Developmental and Behavioral Pediatrics. Their gift led to the recruitment of Heidi Feldman, MD, PhD, professor of pediatrics, to direct the new Developmental-Behavioral Pediatrics program at Packard Children’s.

“David has some challenges but has done well,” Feldman observes. “It’s important that we connect families like David’s with the structured support, follow-up, and coordination they need to tackle their children’s disabilities.”

Fortunately, David has benefited from the generous investment the Ballinger family made in 2004. Today, Packard’s Developmental-Behavioral Pediatrics program provides families like David’s with the structured support, follow-up, and coordination they need to tackle their children’s disabilities.

Eva Lagunas, Redwood City

Inside the NICU, Eva Lagunas is beaming with pride. She has come in to share photos of her youngest son, David Luna. She greets the nurses with hugs. “They are like family to me,” she says.

David has a recent graduate of the University of Denver.

“It’s important that we connect families with services, either at Packard or in the community close to their homes, to monitor and assist with their development.”

- Heidi Feldman, MD, PhD

he could have severely impaired vision and hearing, and might never walk.

It wasn’t until four months later that Eva and Miguel were finally able to take him home for the first time. Today, the nurses are stunned by David’s progress. His health is good, and though his development is somewhat delayed, he is now walking, beginning to talk, and slowly catching up on other skills. Eva mentions proudly that he loves to eat—everything except zucchini—and is even a bit taller than a neighbor of the same age.

“We the Ballingers really took the lead in helping us develop our high-risk follow-up clinics and build interfaces with the community,” notes Stevenson. “Now, when kids leave our nursery they have places to turn to for assistance in overcoming the challenges they may face.”

Luckily for Court, high school was a turning point for him. He attended a school on the East Coast where he met other students facing similar challenges, and finally began to come out of his shell.

Court is now thriving as a young adult. Though the memories of the NICU are still a little too vivid in Leslie’s mind, she is hopeful that things are somewhat easier for other families as their children grow up.


It took a lot of determination, hard work, and prayer to get her son to where he is today, she says. David has undergone intensive therapy to learn basic functions like grasping and talking.

Fortunately, David has benefited from the generous investment the Ballinger family made in 2004. Today, Packard’s Developmental-Behavioral Pediatrics program provides families like David’s with the structured support, follow-up, and coordination they need to tackle their children’s disabilities.

“David has some challenges but has done well,” Feldman observes. “It’s important that we connect families like his with services, either at Packard or in the community close to their homes, to monitor and assist with their development.”

For her part, Eva has taken full advantage of the resources available to help David grow. Their busy weekly schedule consists of three sessions of occupational and


It took a lot of determination, hard work, and prayer to get her son to where he is today, she says. David has undergone intensive therapy to learn basic functions like grasping and talking.

Fortunately, David has benefited from the generous investment the Ballinger family made in 2004. Today, Packard’s Developmental-Behavioral Pediatrics program provides families like David’s with the structured support, follow-up, and coordination they need to tackle their children’s disabilities.

“David has some challenges but has done well,” Feldman observes. “It’s important that we connect families like his with services, either at Packard or in the community close to their homes, to monitor and assist with their development.”

For her part, Eva has taken full advantage of the resources available to help David grow. Their busy weekly schedule consists of three sessions of occupational and
physical therapy through California Children’s Services, two sessions at an early intervention program where he socializes with other children, and in-home visits by a speech therapist and a teacher to build David’s vocabulary and cognition. She keeps a positive outlook, but is not afraid to speak up if she feels his needs are not being met. When she felt that one program was not the right environment for him, she immediately sought out a better fit.

“We have to be our children’s voices,” Eva says. Today, she adds David’s photo to the NICU wall, and takes a moment to encourage other Spanish-speaking parents who look anxious and frightened. “I want them to know that at Packard, their baby is in the best place possible,” she says. “To me, the NICU is a place of life, hope, and love.”

Sarah Jones, Palo Alto

On the ground floor, Sarah Jones and Andy Sharp are waiting nervously as their 7-month-old son, Nicholas, undergoes his third surgery since birth. It is the latest bump in what has already been a long and arduous road for their first child.

Last summer, while Sarah was pregnant with Nicholas, her 26-week ultrasound revealed an excess of amniotic fluid, which indicated that the baby was not swallowing as he should. Her doctors suspected duodenal atresia, in which the first part of the small bowel is obstructed, preventing passage of the stomach’s contents.

“We try to put the pieces of the puzzle together for parents, so that they’re able to understand and prepare as much as possible for what will happen in the weeks and months—sometimes years—ahead,” says Susan Hintz, MD, medical director of the Center for Fetal and Maternal Health and an Arline and Pete Harman Endowed Faculty Scholar.

The team informed Sarah and Andy that their baby would likely need surgical repair shortly after his birth. “But even with all our technology, expertise, and imaging capabilities, we underscore that we still can’t perfectly predict what is to come,” adds Hintz. It turned out Sarah’s baby was unpredictable indeed.

Sarah was referred to Packard’s Center for Fetal and Maternal Health, which assembled a team consisting of a high-risk obstetrician, a neonatologist, a genetic counselor, a medical social worker, and a surgeon to develop a care plan for her and the baby.

“Just three weeks later, in the middle of the night, Sarah’s water broke and she went into preterm labor. Sooner than anyone expected, she was admitted to Packard Children’s, where doctors stopped her contractions and kept her on bed rest for eight days. When her contractions began again the following week, her doctors found that the baby’s heart rate was dropping and determined that he needed to be delivered immediately via an emergency C-section.

“It all happened very fast,” Sarah recalls. “Twenty minutes later, Nicholas was here.”

Born at just 30 weeks and weighing less than 3 pounds, Nicholas Sharp required immediate surgery to correct duodenal atresia, a rare obstruction of the small bowel.

Born at 30 weeks, Nicholas was a tiny 2 pounds, 14 ounces.

Fortunately for both mom and baby, their Packard care team already had a plan in place, and neonatologists and pediatric surgeons were ready to jump into action. Just after Nicholas was born, his doctors confirmed that he had duodenal atresia, which would need to be addressed immediately. And when attempts to intubate him failed, they suspected that he also had tracheo-esophageal fistula (TEF), an abnormal connection between his esophagus and trachea.

Surgeons Sanjeev Dutta, MD, and Matias Bruzoni, MD, operated on Nicholas that evening, successfully repairing the duodenal atresia and performing a temporary measure for TEF. Nicholas was not the smallest patient ever to undergo surgery at Packard Children’s, but was well out of the range of what most other hospitals are able to
handle. His small size and prematurity, along with his two concurrent conditions, made his case particularly challenging.

“There’s nothing written in a textbook about how to deal with this sort of situation,” notes Dutta, an Anline and Pete Harman Endowed Faculty Scholar. “It takes the experience and innovation of a place like Packard to manage the nuances of caring for complex and rare conditions like what Nicholas had.”

Six weeks later, when he had grown a little bigger and stronger, Nicholas underwent his second surgery to fully repair the TEF. He stayed in the NICU for several more weeks, and finally went home last October.

“Our NICU nurses were simply amazing—both for Nicholas and for us,” recalls Andy. “The support they gave us, and their ability to advocate for him and help us understand everything was truly exceptional.”

At home, it was smooth sailing for a few months, until a checkup this January found that Nicholas’ head circumference had spiked considerably. A CAT scan showed that he had hydrocephalus, or excessive fluid around his brain, which would require a shunt to relieve the pressure.

Today, Sarah and Andy find themselves back at Packard as neurosurgeon Michael Edwards, MD, operates on Nicholas. Fortunately, the surgery goes smoothly, and by evening, Nicholas is in recovery, breathing on his own.

Michelle Craig reports that she and 4-month-old Avery are both doing great. He has already taken his first trip to Hawaii. Despite the event that landed Michelle in the hospital for 66 days, Avery has been nothing but healthy.

“Being in the hospital for that long was really awful at the time,” Michelle says. “But looking back now, I feel so lucky. I’m so glad I stayed. Everyone at Packard went above and beyond to take good care of us. We’re so grateful that it turned out so well.”

Leslie Ballinger is the proud mother of a college graduate. In May, Court received his degree in geography from the University of Denver. This summer, he volunteered at an orphanage in Tanzania, climbed Mount Kilimanjaro—the single best experience of his life, he says—and prepared to start a new job with AmeriCorps.

“Climbing Kili is one for the bucket list,” says Court. “It was just amazing and opened my eyes to what’s possible and what’s out there in the world. I can do so many things that I didn’t know I was capable of.”

Eva Lagunas is thrilled with her son’s continued progress. David, now 2, can point out animals in his books by name, dances happily anytime he hears music, and is eagerly practicing his newest skill—running. Eva credits the wonderful community programs, and a lot of prayer, for helping David come this far.

“We’ve had hundreds, thousands of people praying for David,” Eva says. “He is a miracle.”

And, after a rollercoaster year, Sarah Jones is breathing easier. A few days after his third surgery, Nicholas was back home again, though his doctors advised Sarah and Andy to keep him close to Packard Children’s at all times. In May, when Nicholas was 10 months old, they were given the green light to take him out of town for the first time. In July, Nicholas celebrated his first birthday. An active child with enviable red hair, he is now busy exploring all his new toys. At some point, he will likely need another surgery to resolve one remaining issue. But for now, it’s not slowing him down much. For lunch, he enjoys two large servings of pureed fruits and vegetables, then gulps down a generous bottle of formula.

“It’s been quite an experience,” says Sarah. “We are so grateful for the amazing care we’ve received from everyone at Packard.”

Four Months Later

Michelle Craig reports that she and 4-month-old Avery are both doing great. He has already taken his first trip to Hawaii. Despite the event that landed Michelle in the hospital for 66 days, Avery has been nothing but healthy.

“Being in the hospital for that long was really awful at the time,” Michelle says. “But looking back now, I feel so lucky. I’m so glad I stayed. Everyone at Packard went above and beyond to take good care of us. We’re so grateful that it turned out so well.”

Leslie Ballinger is the proud mother of a college graduate. In May, Court received his degree in geography from the University of Denver. This summer, he volunteered at an orphanage in Tanzania, climbed Mount Kilimanjaro—the single best experience of his life, he says—and prepared to start a new job with AmeriCorps.

“Climbing Kili is one for the bucket list,” says Court. “It was just amazing and opened my eyes to what’s possible and what’s out there in the world. I can do so many things that I didn’t know I was capable of.”

Eva Lagunas is thrilled with her son’s continued progress. David, now 2, can point out animals in his books by name, dances happily anytime he hears music, and is eagerly practicing his newest skill—running. Eva credits the wonderful community programs, and a lot of prayer, for helping David come this far.

“We’ve had hundreds, thousands of people praying for David,” Eva says. “He is a miracle.”

And, after a rollercoaster year, Sarah Jones is breathing easier. A few days after his third surgery, Nicholas was back home again, though his doctors advised Sarah and Andy to keep him close to Packard Children’s at all times. In May, when Nicholas was 10 months old, they were given the green light to take him out of town for the first time. In July, Nicholas celebrated his first birthday. An active child with enviable red hair, he is now busy exploring all his new toys. At some point, he will likely need another surgery to resolve one remaining issue. But for now, it’s not slowing him down much. For lunch, he enjoys two large servings of pureed fruits and vegetables, then gulps down a generous bottle of formula.

“It’s been quite an experience,” says Sarah. “We are so grateful for the amazing care we’ve received from everyone at Packard.”
When it comes to giving birth, where does the health of the expectant mother end and the care of the baby begin? At most hospitals, there is a distinct line between obstetrics—the surgical specialty that deals with the care of a woman during pregnancy and childbirth—and neonatology, a pediatric subspecialty that provides medical care for newborns, especially ill or premature babies.

But from its very beginning, Lucile Packard Children’s Hospital at Stanford has treated pregnancy and delivery as a continuous process, dissolving that line between caring for the adult patient and the newborn by integrating services dedicated to the health of both mother and baby.

Packard Children’s is the only children’s hospital in the Bay Area—and one of the few in the country—to combine obstetric and newborn services under one roof. Whether the pregnancy is high-risk or routine, care for mother and baby takes place as one continuous process that is immediate and focused. At Packard, the labor and delivery rooms and the nursery are just steps apart, and neonatal specialists are on hand for consultation or intervention during complicated births to provide a seamless transition for at-risk newborns.

“Obstetrics and neonatology, by their very natures, require teams that know how to collaborate and connect.”

—Maurice Druzin, MD

“There has always been a close relationship between obstetrics and neonatology,” says Maurice Druzin, MD, the Charles B. and Ann L. Johnson Professor, chief of maternal-fetal medicine, and service chief of obstetrics and gynecology. “I came to Packard in 1991 with the intended purpose to strengthen that link and to establish the obstetrical component of a consolidated service.”

This integration of obstetrics and neonatology is a Packard trademark. The concept was built into the initial planning for a separate children’s hospital in the late 1970s, when labor and delivery still took place at Stanford Hospital. Services and administration were fully consolidated with the opening of Packard’s Charles B. and Ann L. Johnson Center for Pregnancy and Newborn Services in 1997.

“Obstetrical and neonatal services are highly interdependent by nature,” says Johnson Center director David Stevenson, MD, the Harold K. Faber Professor of Pediatrics. “Physical proximity is only a part of it. We have created a fully integrated network that simplifies the process of care for both patients and physicians.”

Dr. Druzin predicts even closer alignment of the two specialties as Packard Children’s refines its plans for expansion and renovation. In the coming years, private rooms are planned for all patients. And as new knowledge and improved technology enhance outcomes, additional services like reproductive endocrinology and infertility clinics may be incorporated more effectively, providing a unique opportunity to evaluate and influence pregnancy from conception to the newborn period.

“Bringing these services together makes perfect sense,” says Stevenson. “There is an inherent overlap of interests and outcomes. Both the mother and the infant are already right where they need to be.”
High Risk High Reward

Packard Develops Network of Services to Manage Complex Pregnancies

“You can’t separate the maternal from the fetal in these complex situations. There are few places that integrate these specialized services as closely as Packard does.”

— Maurice Druzin, MD
When Tara Rojas of Newark decided it was time to start a family, she had a lot going against her. Type 1 diabetes had ravaged her organs, and in 2001 she had a kidney and pancreas transplant, which required a regimen of immunosuppressant drugs. She was also close to 40, but living without diabetes for the first time gave her a new perspective on life and made her determined to finally have a baby.

She ended up in the office of Yasser El-Sayed, MD, associate chief of maternal-fetal medicine, who carefully went over her options. “He was extremely communicative about his concerns but was also completely respectful of my wishes,” says Rojas. “The bottom line was it was up to me and whatever I decided, he would support.”

El-Sayed, a specialist in high-risk pregnancies, explained the possible complications: Her drug regimen was not a major concern, but because late-stage diabetes had damaged her blood vessels, there was a good chance of microvascular damage to the placenta that would prevent it from attaching to the uterus properly. There was also potential for a host of other problems ranging from preeclampsia to restricted fetal growth to hemorrhage during delivery.

Rojas persevered and became pregnant in 2004. A weak cervix, unrelated to her disease, forced her into the Hospital for seven weeks of bed rest when she was five months pregnant. Karly was born at 27 weeks, weighing just 2 pounds and 8 ounces, and spent 10 weeks in Packard’s Neonatal Intensive Care Unit (NICU) until she was strong enough to go home.

Today, 7-year-old Karly is busy with tennis, ice skating, piano lessons, and swimming. “I call her my miracle baby,” says her mother, a program manager for the pancreatic islet program at the University of California, San Francisco. “I honestly don’t think I could have found that level of care and professionalism anywhere else. Packard’s commitment and follow-up in tracking her development has been incredible.”

At most other children’s hospitals, about 1 to 2 percent of cases are considered high-risk pregnancies or difficult births. About 15 percent of births taking place at Packard fall under this category, according to Druzin. They include mothers like Rojas, who faced complications from previous disease and a premature delivery, as well as women dealing with unexpected problems.

“It’s an evolving subspecialty,” adds El-Sayed, “but our focus remains on integrated care for any complications that can arise during pregnancy and delivery. Our goal is to help make a smooth transition from fetus to baby, no matter what the conditions. And our care doesn’t end after the baby is born.”

Of the approximately 4,200 deliveries that take place at Packard each year, nearly 20 percent require a stay in the NICU because of premature development, cardiac anomalies, infection, respiratory problems, or other concerns, says El-Sayed, even though the mother may be fine. A mother giving birth to premature triplets, for example, may recover and be able to return home right away even though her infants will require hospitalization for many weeks.
Care for Complex Fetal Problems

In 2010, Packard opened the Center for Fetal and Maternal Health to provide even better care coordination for mothers facing certain conditions—fetal anomalies and specific maternal issues likely to cause severe problems for the fetus.

“These expectant mothers require extensive assessments, counseling, and follow-up appointments. They need to be seen more frequently, sometimes by as many as four or five different specialists as their pregnancy progresses,” says Susan Hintz, MD, medical director of the Center and an Arline and Pete Harman Endowed Faculty Scholar.

Because of the wide range of complex cases seen at Packard Children’s, and the mutual understanding among caregivers about the importance of a coordinated approach, the Center has representation from nearly every specialty area at the Hospital. Teams of diagnostic, medical, and surgical specialists meet routinely in conference to review cases and plan multidisciplinary management and interventions. From initial referral for prenatal counseling to follow-up visits, two dedicated Center for Fetal and Maternal Health coordinators act as a single point of entry, improving communication with patients and preventing duplication of services.

Demand has increased more than 30 percent since the Center opened, and about 45 to 55 expectant mothers carrying fetuses with complex problems are followed at any given time.

In addition, the Center helps to provide emotional and psychological support for parents facing what may be the most stressful time in their lives. A medical social worker is assigned to each patient to assist the expectant mother and family starting at prenatal diagnosis and continuing throughout the baby’s hospitalization.

“The very start we try to help families to understand and prepare for the challenges they may face,” says Hintz.

A Network of Service

To help screen and serve more families, Packard Children’s maintains a network of perinatal diagnostic centers and neonatal intensive care services at community hospitals in Mountain View, Fremont, Salinas, and Santa Cruz. These centers provide a full range of analytic, screening, treatment, consultation, and counseling services and can refer women and newborns to Packard for specialized care and planning in high-risk situations. Druzin calls it “a rich network of community enterprises.”

“It’s a relief for a mother to be able to stay in her own community and with her own obstetrician, especially during a difficult pregnancy,” says El-Sayed. “We provide specialized care and offer consultation on-site so they don’t need to drive all the way to the main hospital.”

Each regional center is staffed by a Packard specialist in maternal and fetal medicine who works directly with community obstetricians to diagnose and consult on difficult pregnancies, coordinate prenatal and neonatal care, or triage cases that may need to transfer to Packard Children’s. If appropriate for the infant’s diagnosis, it is often less stressful for a mother to deliver and her baby to receive initial treatment at their home hospital, and then receive outpatient follow-up care at Packard with appropriate subspecialists, points out Hintz.

Center services also include state-of-the-art imaging technology and genetic counseling, providing important resources for families grappling with difficult circumstances.

“We move mothers to Packard only if we can’t give them the care they need right there, and we encourage them to return home while they’re convalescing,” says Druzin.

“We want to keep families together and close to home whenever possible.”

Packard’s Mid-Coastal California Perinatal Outreach Program provides obstetrical education to community health care providers to promote the highest standards of patient safety and family-centered care in these affiliated hospitals. Speakers, workshops, conferences, and peer reviews are offered to community physicians and nurses, as well as site visits and compliance reviews.

Packard Children’s has extended its services further at Dominican Hospital in Santa Cruz, which maintains an operating room in the labor and delivery area and a 20-bed NICU for premature or sick babies. Packard neonatologists—who live in the community—care for infants in the NICU, and those requiring specialized neonatal care can be transferred easily between the two hospitals.

That process was a lifesaver for Jaime Shaffer of Santa Cruz, who started leaking amniotic fluid when she was just 11 weeks pregnant with twins. She was monitored carefully at Dominican’s perinatal diagnostic center and then transferred to Packard Children’s for observation and bed rest. When Tyler and Lucas were born at 30 weeks—each weighing just over 3 pounds—they spent their first three weeks at Packard, followed by four weeks in the Dominican NICU.

Now 17 months old, the twins are healthy, happy, and up to normal weight, says Shaffer. “There were so many unknowns, but the communication was clear and the transfers were easy,” she adds. “We received the best of care at Packard and the outcome was a million times better than it might have been if I had been seen somewhere else.”
Raising the Bar

Innovative Research and Training Advance Obstetrical Care

By Mark Shwartz

Packard Children’s is leading the way in simulation training for obstetrics. The pioneering OBSim program allows doctors, nurses, residents, and interns to experience difficult deliveries and refine their skills in a realistic setting.
A century ago, childbirth in the United States was anything but routine. On average, complications of pregnancy took the lives of 8 women for every 1,000 births.

Today in the U.S., fewer than 20 women die per 100,000 births—a dramatic turnaround largely attributed to significant improvements in public health and major advances in obstetric medicine.

The Stanford School of Medicine recruited its first professor of obstetrics in 1912, and in the century since has been at the forefront of improving the lives of expectant mothers and newborns. Experts across the Hospital and medical campus are focused on ways to refine medication and treatment for preterm labor, and are pursuing genomic investigations that may help identify at-risk conditions or problems in fetal development.

“We have fostered a track record of excellence in clinical investigation and translational medicine,” says El-Sayed. “Research is an important part of our commitment and helps Packard expand its clinical care and outreach.”

**Innovative Clinical Studies**

Four years ago, El-Sayed and Deirdre Lyell, MD, associate professor of obstetrics and gynecology, began conducting trials of the drug nifedipine, a muscle relaxant routinely given to pregnant women in early labor to reduce contractions and prevent premature birth. Although widely prescribed, nifedipine had never been tested in a placebo-controlled study.

In 2008, Lyell and her colleagues recruited 70 women at Packard Children’s who were in early labor. Some were randomly given nifedipine, others a sugar pill.

“We found that nifedipine was no more effective than the placebo at delaying delivery,” says Lyell, lead author of the study, which the American College of Obstetrics and Gynecology named one of the outstanding research papers of 2008.

“We demonstrated that pregnant women were being exposed to many drugs unnecessarily,” adds El-Sayed. “I’m confident that our clinical trial made a big change in how nifedipine is administered in this country.”

In 2010, Lyell was named director of a new program at Packard Children’s established to study placental disorders and to streamline the care of pregnant women whose placentas are abnormally attached.

“In just 20 years, Packard researchers have literally changed the treatment of preterm labor in this country,” says Maurice Druzin, MD, the Charles B. and Ann L. Johnson Professor and vice chair of obstetrics and gynecology.

Druzin joined the faculty in July 1991, shortly after Packard Children’s opened its doors. Among the handful of obstetrics residents at the new Hospital was Yasser El-Sayed, MD, now a professor of obstetrics and gynecology and associate chief of maternal-fetal medicine.
Toni Gauthier

Jason Chuang

24 Special delivery

supportLPCH.org

R placental implantation leading to different diseases professor of obstetrics and gynecology, is conducting a novel method for tracking placental gene expression throughout pregnancy, a significant step forward for studies on placental gene functions. In other research, El-Sayed, Lye, and Druzin recently co-authored a study comparing pregnancy outcomes among white and mixed Asian/white couples. The study, based on data collected from more than 9,000 couples whose babies were delivered at Packard Children’s from 2000 to 2006, found that pregnant women have a higher risk of gestational diabetes if one parent is Asian and the other is white. “With the rich diversity of the San Francisco Bay Area, this is an important contribution to our understanding of the role of ethnicity in pregnancy outcomes,” says Druzin.

Across campus, Stephen Quake, PhD, a professor of bioengineering and of physics, has developed a non-invasive prenatal test for Down syndrome and other genetic disorders. Standard screening procedures, such as amniocentesis, are risky, because they require inserting a needle into the uterus to get a sample of placental DNA. Quake’s technique isolates fetal DNA in the mother’s blood, eliminating the need to puncture the placenta and thus minimizing the risk of miscarriage. “People are sometimes fearful about genetic testing,” says Mary Norton, MD, professor of obstetrics and gynecology and of pediatrics. An expert in maternal-fetal medicine, Norton was recruited to Packard Children’s in 2008 as director of perinatal research. “In our studies, we found that with invasive procedures, such as amniocentesis, pregnant women were more selective,” Norton says. “They only wanted to be tested for serious or potentially fatal diseases.”

Advancing Care Nationwide

To broaden the opportunities for high-impact research beyond the medical campus, Norton and her colleagues submitted an application on behalf of Stanford for membership in the Maternal Fetal Medicine Units (MFMU) Network, a consortium of 14 university-based clinical centers across the U.S. Established in 1986 as the national hub for clinical research in obstetrics, the Network coordinates nationwide trials and large-scale population studies involving thousands of pregnant women and newborns across the country. Earlier this year, the National Institutes of Health approved the application, making Stanford the first and only MFMU center in California.

Today, Norton and El-Sayed are leading two MFMU studies, both of which are currently recruiting pregnant women throughout the U.S. One is a placebo-controlled clinical trial to determine if giving steroids to women who deliver early reduces respiratory complications in babies who are just slightly premature. The other study is a randomized trial of a new diagnostic device called ST segment analysis (STAN) that continuously monitors the fetal heart rate with more sophisticated technology than what is currently standard. STAN was designed to reduce the chance of fetal brain damage due to lack of oxygen and to provide a more accurate assessment of a baby’s heart rate, resulting in fewer unnecessary cesareans.

“You need a proven track record of clinical trials to be accepted in the MFMU Network,” Druzin says. “It’s prestigious, and reflects our commitment to advancing the field of obstetrics.”

Simulation-Based Training

Obstetrics is a team sport,” observes Kay Daniels, MD, clinical professor of obstetrics and gynecology. At Packard Children’s, that team includes labor and delivery nurses, neonatal pediatricians, obstetricians, obstetric anesthesiologists, and other specialists, nurses, and staff. To address the high-risk nature of obstetric medicine, Daniels and her colleagues have created a simulation-based training program called OBSim. This pioneering program allows doctors, nurses, residents, and interns to experience difficult deliveries in a hospital-like setting. Using live actors and mannequins, OBSim staff create realistic scenarios designed to teach obstetric personnel how to handle unexpected situations in the delivery room that may threaten the health of a mother and her baby. “There is a unique time pressure to obstetrical care,” says Daniels, co-director of the OBSim program. “If something catastrophic happens, you have 5 or 10 minutes to deal with it. That’s where OBSim helps by improving communication.”

The program was launched in 2004 as part of Packard’s Center for Advanced Pediatric and Perinatal Education (CAPE), the world’s first simulation-based training center devoted to training medical professionals in the care of fetal, neonatal, and obstetric patients. “A gift from an anonymous donor allowed us to build a simulation training center across the street from Packard Children’s,” says CAPE director Lou Halamek, MD, associate professor of pediatrics and, by courtesy, of obstetrics and gynecology.

The 400-square-foot simulation room is designed to replicate a variety of hospital settings. For OBSim, a bed, monitors, and other medical equipment are arranged to simulate a delivery room. Staff direct each scenario from a control room, which is separated from the simulation room by a one-way mirror. TV monitors in the control room display live video from cameras set up throughout the mock delivery room. Each scenario is videotaped so that participants can review their performance.

“There is a unique time pressure to obstetrical care. If something catastrophic happens, you have 5 or 10 minutes to deal with it. That’s where OBSim helps by improving communication.”

Kay Daniels, MD

Collaborative Genetic Research

Researchers at Stanford are also working to address serious complications of pregnancy using state-of-the-art techniques, such as medical genetics. Anna Penn, MD, PhD, an assistant professor of pediatrics, leads the Stanford Placental Working Group, a multidisciplinary team of scientists and doctors focused on understanding the contribution of placental pathology to preterm birth. For example, roughly half of premature births at Packard each year are the result of preclampsia, a condition that causes high blood pressure in pregnant women. Severe preclampsia can lead to seizures and other serious health problems for the mother. One goal of the Placental Working Group is to shed light on this disorder by comparing DNA samples from hundreds of placentas donated by normal, preterm, and preclampsia patients at Packard Children’s. These donations will form the foundation of a Placental Tissue Bank that can support many lines of research beyond the medical campus, Norton and her colleagues submitted an application on behalf of Stanford for membership in the Maternal Fetal Medicine Units (MFMU) Network, a consortium of 14 university-based clinical centers across the U.S. Established in 1986 as the national hub for clinical research in obstetrics, the Network coordinates nationwide trials and large-scale population studies involving thousands of pregnant women and newborns across the country. Earlier this year, the National Institutes of Health approved the application, making Stanford the first and only MFMU center in California.

Today, Norton and El-Sayed are leading two MFMU studies, both of which are currently recruiting pregnant women throughout the U.S. One is a placebo-controlled clinical trial to determine if giving steroids to women who deliver early reduces respiratory complications in babies who are just slightly premature. The other study is a randomized trial of a new diagnostic device called ST segment analysis (STAN) that continuously monitors the fetal heart rate with more sophisticated technology than what is currently standard. STAN was designed to reduce the chance of fetal brain damage due to lack of oxygen and to provide a more accurate assessment of a baby’s heart rate, resulting in fewer unnecessary cesareans.

“You need a proven track record of clinical trials to be accepted in the MFMU Network,” Druzin says. “It’s prestigious, and reflects our commitment to advancing the field of obstetrics.”

Advancing Care Nationwide

T

o broaden the opportunities for high-impact research beyond the medical campus, Norton and her colleagues submitted an application on behalf of Stanford for membership in the Maternal Fetal Medicine Units (MFMU) Network, a consortium of 14 university-based clinical centers across the U.S. Established in 1986 as the national hub for clinical research in obstetrics, the Network coordinates nationwide trials and large-scale population studies involving thousands of pregnant women and newborns across the country. Earlier this year, the National Institutes of Health approved the application, making Stanford the first and only MFMU center in California.

Today, Norton and El-Sayed are leading two MFMU studies, both of which are currently recruiting pregnant women throughout the U.S. One is a placebo-controlled clinical trial to determine if giving steroids to women who deliver early reduces respiratory complications in babies who are just slightly premature. The other study is a randomized trial of a new diagnostic device called ST segment analysis (STAN) that continuously monitors the fetal heart rate with more sophisticated technology than what is currently standard. STAN was designed to reduce the chance of fetal brain damage due to lack of oxygen and to provide a more accurate assessment of a baby’s heart rate, resulting in fewer unnecessary cesareans.

“You need a proven track record of clinical trials to be accepted in the MFMU Network,” Druzin says. “It’s prestigious, and reflects our commitment to advancing the field of obstetrics.”
Esprit de Corps

OBSim is also used to assess strengths and weaknesses in a real hospital environment. In 2008, Packard nurses participated in a drill that simulated a woman with postpartum hemorrhage. In the scenario, the woman was bleeding profusely, and a nurse was instructed to get medication quickly from a computerized system called Pyxis—standard equipment at Packard and many other hospitals. “Pyxis confers a certain amount of safety,” explains Daniels. “For example, if you request a medication that the patient is allergic to, Pyxis won’t let you remove it until you enter the patient’s name and get biometric authorization by placing your finger on the screen. But if the mom is bleeding 700 cc of blood per minute, you need to move quickly.”

When Daniels and her colleagues reviewed the video of the Pyxis drill, they discovered that it took the nurse more than two minutes to get all of the required medications, because each one had to be entered individually. “We contacted the company that manufactures Pyxis, and they agreed to improve the biometrics,” Daniels says. “Then we worked with our pharmacy to create a kit that allowed all the medications to be removed at once. The next time we ran the drill, it took the nurse only 29 seconds to retrieve the appropriate medication.”

Postpartum hemorrhage occurs in about 4 percent of births, so this newly streamlined system could save the lives of many women. “Maternal mortality from postpartum hemorrhage is a direct result of OBSim,” says Steven Lipman, MD, clinical professor of obstetrics and gynecology, Packard Children’s is one of the few institutions in California that uses an “open model” in which private doctors work alongside medical school faculty. About half of the pregnant women admitted to Packard come under the care of private practitioners. It’s a wonderful blend,” says Druzin. “Residents and interns learn from highly regarded faculty at the medical school and from skilled doctors in private practice. It’s the best possible education, and has resulted in one of the top OB/GYN training and residency programs in the country.”

Training the Next Generation

In addition to preeminence in obstetric research, Packard and Stanford have developed an innovative training and education program for future obstetricians. Packard Children’s is one of the few institutions in the country. “To be involved with OBSim has been exciting, intellectually stimulating, and gratifying. By working together, we’ve broken down barriers and created an esprit de corps that has changed the culture at Packard,” says Steven Lipman, MD.

“Training the Next Generation” is a primary goal of OBSim. In addition to training residents and fellows in the latest techniques and technologies, OBSim also provides a forum for interdisciplinary discussions. “We created a scenario in which there was a sudden drop in fetal heart rate. For anesthesiologists, this could mean that the mom is having an adverse response to her epidural, which could require a change in how much anesthetic is delivered. The obstetrician might think there is a placental problem and consider moving the mom to the operating room for delivery. For the nurses, we say, whatever happens, we’re ready.”

To be involved with OBSim has been exciting, intellectually stimulating, and gratifying. By working together, we’ve broken down barriers and created an esprit de corps that has changed the culture at Packard.”

Steven Lipman, MD

Today, the Stanford School of Medicine accepts five residents annually to a four-year training program in general obstetrics and gynecology. An additional three-year fellowship in maternal-fetal medicine, accepting just one individual annually, provides training in high-risk obstetrics. The program leads to subspecialist certification, and positions graduates for careers in academic medicine. Specialty training and high-quality research go hand in hand, notes El-Sayed. “Our vision at Packard is to conduct clinical studies that affect the care of pregnant women worldwide,” he says. “To do that, we need to support fellows and faculty through unrestricted research grants. Obstetric research has always been under-funded. If donors are thinking about helping children, remember, it all starts with pregnancy.”
Children’s Circle of Care
Ashley Giesler

Ashley Giesler understands first-hand what it feels like to have a sick child. One month after her older son, Charlie, was born at Lucile Packard Children’s Hospital, doctors discovered a small hole in his heart. “We were stunned,” she recalls. “Here I thought I had a perfectly healthy baby and then we got the news. It changed my perspective immediately.”

Fortunately, the hole closed on its own after careful monitoring. Ashley, grateful for the compassionate care that her son received, began thinking about ways to become more involved with the Hospital. She decided to join Circle of Friends, a unique organization that supports Packard Children’s through volunteer opportunities, community events, and member philanthropy.

One of Ashley’s first experiences with the group was a tour of the Hospital. She was deeply moved while visiting the Neonatal Intensive Care Unit, which cares for the most fragile newborns. In addition, she observed visiting the Neonatal Intensive Care Unit, which cares for extremely premature infants. Ashley was deeply moved while observing the care her son received.

“I realized very quickly that Packard not only provides world-class medical care, but also really treats the whole family,” Ashley explains. “As a mother, I understand how important it is to know that your children are being cared for emotionally as well as physically.”

When both of her sons began developing food allergies, Ashley once again benefited from Packard’s family-oriented approach, as doctors were able to leverage their understanding of Charlie’s food allergies to help develop a course of treatment for her younger son, Jack. The boys are doing well, but Charlie requires close and careful observation as he faces ongoing dietary restrictions. Despite the circumstances, she considers her family to be fortunate compared to others whose children suffer from life-threatening conditions.

Earlier this year, Ashley became a Children’s Circle of Care (CCOC) member. Her generosity helps to ensure that all families in our community have access to world-class pediatric and obstetric care and the best chance to live a healthy life. In addition to her philanthropic leadership, she is an inaugural member of the recently formed CCOC Council and has served on numerous honorary committees. “I take so much pride in being involved with Packard Children’s,” says Ashley. “It is, after all, a nationally recognized institution that we are privileged to have in our community.”

Gift Planning
Phyllis Hanson

Phyllis Hanson, a longtime resident of the Bay Area and supporter of Lucile Packard Children’s Hospital, passed away in 2010. She was 87 years old. Although modest and frugal in life, Phyllis left behind a substantial estate which she designated entirely to charity. Packard Children’s is a grateful recipient of her remarkable generosity, along with several other organizations that serve children and animals.

Born in Mabel, Minn., Phyllis was the only daughter of the town banker. While attending universities in Minnesota and North Carolina, she developed a passion for music. In the 1940’s, she joined an all-female band that toured throughout the United States and Europe. Phyllis made her way to California, where she decided to settle after falling in love with its natural beauty. While she remained a lifelong musician and found the time to provide trumpet and organ lessons to young students, she also pursued a career in real estate. In 1968, Phyllis bought her own house in the newly developing Niles neighborhood near Fremont, where she remained for 42 years.

When Phyllis began considering opportunities for philanthropic investment, she resolved to pay equal attention to her head and her heart. Although she had no children of her own, she had a deep love of children and understood the importance of medical institutions dedicated entirely to pediatric care and research.

Ray Midkhan, a longtime family friend and financial advisor to Phyllis, accompanied her on several site visits as she evaluated different organizations. In 1985, after carefully reviewing her charitable options, Phyllis made her first gift to Packard Children’s.

“Phyllis was a woman with strong convictions and a sharp instinct,” says Ray. “She was profoundly touched by what she saw at Packard, and truly impressed with the importance of medical institutions demonstrated by the doctors, nurses, and caregivers.”

Phyllis remained an annual donor for the rest of her life, increasing her support to the Children’s Circle of Care level and consistently making gifts of highly appreciated securities (see sidebar). She also became a member of the Lucile Salter Packard Society, which recognizes individuals who include the Hospital in their estate plans. Her generous legacy gift will help sustain Packard’s ability to provide world-class medical care to children and expectant mothers.

Gifts of Securities

Making an in-kind donation of appreciated securities can be a powerful and rewarding way of supporting Lucile Packard Children’s Hospital. A gift of stock may allow you to receive a sizeable charitable tax deduction and avoid capital gains taxes. Also, depending on how long you have held your stock, your tax deduction may be based on its fair market value, rather than its cost basis.

Appreciated securities can fund Charitable Remainder Trusts or Charitable Gift Annuities—giving vehicles that generate a regular income stream and support world-class clinical care and innovative research to benefit children and families.

To learn more about donating securities to Packard Children’s and the Stanford University School of Medicine, please contact Donna M. Bandelloni, Director of Gift Planning, at (650) 736-1211 or Donna.Bandelloni@lph.org.

This information does not constitute professional tax or legal advice. Please consult your tax and legal advisors regarding your specific situation.
Corporate Partners
Audio High

Eighteen years ago, new parents Claire and Michael Silver were overjoyed with the birth of their daughter, Rachel. But they soon faced a frightening scenario: at 2 months, Rachel was diagnosed with cystic fibrosis (CF). The genetic condition, which causes mucus to build up in the lungs and digestive tract, is one of the most common chronic diseases in children and young adults.

Rachel started receiving care at Packard Children’s from Richard Moss, MD, and her family began a lifelong relationship with the Hospital. While there is currently no cure for CF, its symptoms can be alleviated with proper treatment.

“As young parents, the last thing you imagine is that your child will be sick and require ongoing care,” explains Claire. “But when we saw how meticulous Packard’s staff was, and how they developed personal connections with each and every patient, we knew Rachel was in the best of hands.”

As they watched their daughter thrive despite her condition, Claire and Michael began thinking of ways to give back to Packard Children’s and play a more direct role in supporting CF research.

In 1997, the couple founded Audio High, based in Mountain View. The company sells and installs sophisticated music, theater, and automation systems for home and commercial use. In addition, Audio High organizes a benefit concert series, donating staff time and other resources for the events, with all proceeds supporting Packard Children’s, CF research organizations, and other health-focused groups.

Last spring, Audio High also made a generous gift of equipment and labor to upgrade Packard’s central recreation area, the Forever Young Zone, with a state-of-the-art projector, screen, and audio system. The company plans to help build additional “rooms of magic” within the Hospital, allowing young patients to experience movies, music, and other entertainment in a high-tech setting.

Michael believes that his family’s experience has been, in its own way, a gift. “Rachel’s disease has compelled us to examine the meaning of our own lives,” he says. “I have become a better person because of my daughter, and it is her strength that has inspired us to help others.”

Today, Rachel remains healthy and is studying psychology and genetics at UC Berkeley, in preparation to become a genetic counselor.

Foundation Relations
California HealthCare Foundation

In an alarming trend, maternal outcomes in California have worsened significantly over the past decade. Mortality, an important indicator of population health and health care quality in general, has more than doubled, and morbidity (injury) rates are also climbing.

A crucial first step to improving quality of maternal care is the development of clear measures to better track these outcomes. The California Maternal Quality Care Collaborative (CMQCC), a multi-stakeholder initiative which includes participation by the Stanford School of Medicine and Lucile Packard Children’s Hospital, was established to review and distill maternal care outcomes and data into specific quality and safety improvements. Recommendations are then disseminated to health care providers statewide.

To carry out their work, the CMQCC is currently laying the foundation for a new California Maternal Data Center (CMDC). The CMDC is informed by the California Pregnancy-Associated Mortality Review and ongoing work in statewide quality improvement collaboratives. It will enable CMQCC to generate timely, meaningful measures for quality improvement, patient decision-making, and public reporting. Initial planning for the CMDT was made possible thanks to two recent grants from the California HealthCare Foundation (CHCF).

“Our partnership with CHCF has enabled us to set a new standard in the national dialogue on promising quality improvement measures in maternity care,” explains Jeffrey Gould, MD, MPH, principal investigator of CMQCC and the Robert L. Hess Professor of Pediatrics at Stanford. “By providing us with critical resources to help grow our program, CHCF has established itself as a true advocate for women and babies in California.”

“Given the issues facing maternity care in the state and nationally, we’re pleased to partner with the CMQCC to create useful resources and information,” says Stephanie Teleki, senior program officer at CHCF. “Our hope is that these projects will spur thoughtful action, ultimately encouraging providers to improve care and help patients to make more informed choices.”

CHCF, based in Oakland, works as a catalyst for better health care by promoting transparency and accountability in California’s health care system.

Michael and Claire Silver, founders of Audio High, with their daughter, Rachel.

The California HealthCare Foundation is partnering with Stanford and Packard Children’s to enhance the quality of care for expectant mothers and babies statewide.
Longaker Honored for Surgical Research

Michael Longaker, MD, MBA, the Deane P. and Louise Mitchell Professor, is the recipient of the 2011 Flance-Karl Award presented by the American Surgical Association, the oldest surgical association in the United States. The award is the highest research honor that the association awards, and is presented to a surgeon who has made a seminal contribution in basic laboratory research with applications to clinical surgery.

Longaker serves as director of the Children’s Surgical Research Program at Packard as well as director of the Program in Regenerative Medicine and co-director of the Institute for Stem Cell Biology and Regenerative Medicine at Stanford. He has broad experience in pediatric plastic surgery, developmental biology, epithelial biology, tissue repair, and tissue engineering.

David Wins Fellowship in Family Medicine

Sean P. David, MD, clinical associate professor of family and community medicine, was selected in July as a James C. Puffer, MD, American Board of Family Medicine fellow at the Institute of Medicine (IOM). David was selected in recognition of his accomplishments in family medicine, and specifically his work on smoking cessation and health promotion.

David will receive a research stipend of $25,000 and collaborate with researchers and clinicians from across the country to provide nonpartisan, evidence-based guidance to policymakers, academic leaders, health care administrators, and the public.

Named in honor of James C. Puffer, president and chief executive officer of the American Board of Family Medicine, the fellowship program enables talented, early career scholars in family medicine to participate in the work of IOM and further their careers as future leaders in the field. Fellows are selected based on their professional accomplishments, potential for leadership in health policy in the field of family medicine, and the relevance of their expertise to the work of the IOM.

Monje Receives Research Award

Michelle Monje, MD, PhD, instructor in neurology and neurological sciences and the former Beverly and Bernard Wolfe Endowed Fellow in Pediatric Neurooncology, received the 2011 Peter A. Steck Memorial Award in April. This national honor, sponsored by the Pediatric Brain Tumor Foundation, recognizes scientific excellence by a young investigator in a research area relevant to cancer of the central nervous system. Monje studies pediatric brain tumor origins and the molecular signals that drive their growth.

This national honor, sponsored by the Pediatric Brain Tumor Foundation, recognizes scientific excellence by a young investigator in a research area relevant to cancer of the central nervous system. Monje studies pediatric brain tumor origins and the molecular signals that drive their growth.

Packard Rates as Bay Area’s Top Children's Hospital

U.S. News & World Report has once again recognized Packard Children’s on its list of Best Children’s Hospitals. In the 2011-12 rankings, Packard is the only Bay Area children’s hospital with programs in the nation’s top 10, including cardiology/heart surgery (#5), neonatology (#6), and nephrology (#7). Additionally, the cardiology/heart surgery and neonatology programs were the highest-ranked on the West Coast. Seven other Packard programs also ranked highly on the U.S. News specialty list, including cancer, neurology/neurosurgery, diabetes/endocrinology, gastroenterology, pulmonology, urology, and orthopedics.

Recognition for Packard Community Partners

The Peninsula Family Advocacy Program (FAP) and Project Safety Net—two local service organizations that work closely with Packard Children’s—have been named winners of the 2011 Community Partnership Awards given by Stanford University. FAP is a partnership between Packard Children’s and the Legal Aid Society of San Mateo County, and serves patients at Packard, Ravenswood Family Health Center, and San Mateo Medical Center. FAP has been recognized nationally for efforts to improve the well-being of families by addressing the underlying causes of poor health. The group provides free legal assistance, education, and referrals for low-income families and pregnant women from San Mateo and Santa Clara counties whose children are receiving medical care at partner sites.

Project Safety Net is charged with improving the well-being of youth in Palo Alto. The task force—made up of parents and representatives from nearly 30 partner organizations, including health care professionals from Packard Children’s and Stanford—has focused on education and intervention to create a series of suicide prevention programs for local youth and teens.

Lin Awarded as Young Investigator

Michael Lin, MD, PhD, assistant professor of pediatrics and of bioengineering, is the recipient of a Young Investigator Award from the Alliance for Cancer Gene Therapy (ACGT). Lin, whose research focuses on engineering protein tools for studying biology and on developing new technologies for gene therapy, will use the $250,000 grant to study the application of protein-control switches to cancer therapy. ACGT is a non-profit organization founded in 2001 to facilitate funding for high-potential research into gene therapies, with the hope of realizing more effective alternatives for the treatment and management of cancer.
IN THE news

Quake Recognized for Research in Biotechnology

Stephen Quake, PhD, the Lee Otterstrom Professor of Bioengineering, (see Collaborative Genetic Research, p. 24) has been awarded the 2011 Promega Biotechnology Research Award presented by the American Society for Microbiology. The award honors outstanding contributions to the application of biotechnology through fundamental microbiological research and development.

Quake was chosen for his significant and influential contributions to the development of new biotechnology at the interface between physics and biology. He is also the recipient of the 2011 Raymond and Beverly Sackler International Prize in Biophysics, awarded at Tel Aviv University. The award, established through the Sacklers, is given to outstanding scientists age 45 or younger for groundbreaking work in biophysics.

Porteus Awarded for Cancer Research

Matthew Porteus, MD, the Laurie Kraus Jacob Faculty Scholar in Pediatric Translational Medicine, has received a $200,000 Innovation Award from Alex’s Lemonade Stand Foundation (ALSF). Leveraging recent advances in sequencing technology, Porteus will use an innovative cell tracking system to better understand chemotherapy resistance of acute myelogenous leukemia. Porteus was recently recruited to Packard Children’s from UT Southwestern Medical Center at Dallas, and serves as associate professor of pediatrics (cancer biology).

ALSF emerged from the front yard lemonade stand of cancer patient Alexandra “Alex” Scott (1996-2004). In 2000, 4-year-old Alex announced that she wanted to hold a lemonade stand to raise money to help find a cure for children with cancer. Today, ALSF has raised more than $45 million towards pediatric cancer research.

St. Baldrick’s Supports Cancer Research

The St. Baldrick’s Foundation has awarded $760,000 to three pediatric cancer investigators at the Stanford School of Medicine. Michael Wei, MD, PhD, and Yoon-Jae Cho, MD, both received the prestigious St. Baldrick’s Scholar Award, which provides three years of funding for young professionals pursuing exciting research. Wei’s project will focus on non-coding RNA genes in infant leukemias and help identify specific genes that can be targeted for therapy. Cho hopes to identify the molecular factors that medulloblastomas rely on for survival, in order to develop more effective treatments for this lethal disease. In addition, Samuel Chesher, MD, PhD, received a St. Baldrick’s Research Grant to study tumor samples of Diffuse Intrinsic Pontine Glioma and medulloblastoma to develop safer and better treatments.

Packard Accepted Into National Maternal-Fetal Research Network

In April, the division of Maternal-Fetal Medicine at Packard Children’s was accepted into the National Institute of Child Health and Human Development (NICHD) Maternal-Fetal Medicine Units network. The network’s 14 academic medical centers jointly conduct large clinical trials to investigate important problems in obstetrics. This highly coveted role is given in recognition of research contributions to the field, and affords Packard a voice in the development and conduct of clinical trials that will change future national practice.

Berek Receives Leadership Honor

Jonathan Berek, MD, MMS, professor and chair of the Department of Obstetrics and Gynecology and director of the Stanford Women’s Cancer Center, has been elected president of the Council of University Chairs in Obstetrics and Gynecology (CUCOG). He began his two-year term at the American College of Obstetricians and Gynecologists’ annual clinical meeting in Washington, DC, in April. In his role as CUCOG president, Berek will also serve as a member of the national Liaison Committee for Obstetrics and Gynecology. He is the immediate past president of the International Gynecologic Cancer Society.

Chang Honored for Gene Research

Howard Chang, MD, PhD, associate professor of dermatology, is the recipient of the 2010 CERES research award, presented by Chanell Research and Technology. The award honors a scientific researcher with a proven track record in fundamental or clinical research work on the physiology or biology of healthy skin and its reactions to environmental factors. Chang was chosen for his research on gene regulation. He has pioneered new methods for dissecting the regulatory programs that control gene expression, providing important insights into human development and the rise of birth defects.

California Attorney General Kamala D. Harris announced in April the appointment of Victor Carrion, MD, to the state Mental Health Services Oversight and Accountability Commission (MHSOAC). Carrion, associate professor of child psychiatry, serves as director of the Stanford Early Life Stress Research Program at Packard Children’s. The MHSOAC oversees the implementation of the state Mental Health Services Act and advises the Governor and Legislature on mental health policy.

Peng Joins Cardiology Leadership Program

Lynn Peng, MD, clinical assistant professor of pediatrics (cardiology), has been selected for the Emerging Leaders Mentorship (ELM) Program of the Society for Cardiovascular Angiography and Interventions. The ELM Program, in partnership with the American College of Cardiology and the Cardiovascular Research Foundation, takes a small, select group of up-and-coming physicians from around the country and facilitates their transition into the next generation of leaders in the field of interventional cardiology.

Teen Van Celebrates 15th Anniversary

In September, Packard’s Mobile Adolescent Health Services, affectionately known as the Teen Van, celebrated 15 years of service, having provided care for more than 3,500 impoverished and homeless adolescents ages 10 to 25. Using a “Medical Home” model, the Teen Van provides patients with primary health care, specialty care, medications, laboratory work, nutrition counseling, mental health care, and social work services. Since uninsured and homeless youth often lack transportation, the Teen Van comes to them, making regular visits to schools, shelters, and community agencies in Santa Clara, San Mateo, and San Francisco Counties.

Vctor Carrion, MD

Carrion Named to State Commission
Golden Elected to Committee on Nutrition

Neville Golden, MD, the Marron and Mary Elizabeth Kendrick Professor in Pediatrics and chief of the division of adolescent medicine, was recently elected to the American Academy of Pediatrics National Committee on Nutrition. This influential committee makes national policy recommendations on issues related to nutrition of infants, children, and adolescents. Past policy statements include recommendations on the duration of exclusive breastfeeding, dietary requirements, the pediatrician’s role in prevention of childhood obesity, and new cholesterol screening and treatment recommendations.

Nayak Awarded for Preeclampsia Research

Ihab Nayak, PhD, DVM, assistant professor of obstetrics and gynecology and director of translational research in the division of maternal fetal medicine, (see Collaborative Genetic Research, p. 24) has received a 2011 Vision Grant Award from the Preeclampsia Foundation. Nayak’s research involves understanding and developing novel therapies for preeclampsia and other pregnancy-associated vascular disorders. Preeclampsia, which affects the mother’s kidneys, liver, and other vital organs, complicates as much as 8 percent of all pregnancies and is responsible for 15 percent of all premature births.

The Preeclampsia Foundation, based in Melbourne, Fla., works to provide patient support and education, raise public awareness, catalyze research, and improve health care practices. The Foundation awards Vision Grants of initial funding for novel medical research pertaining to the diagnosis and treatment of hypertensive disorders of pregnancy.

Stanford Federal Credit Union Expands Support for Packard

Stanford Federal Credit Union (SFCU), a long-standing supporter of the Art Cart at Packard Children’s, recently expanded its involvement by sponsoring the Hospital’s 2011 Employee Giving Campaign. SFCU’s sponsorship underscores the importance of giving and engages more employees to philanthropically support the Hospital’s mission. SFCU also offers employees an incentive to give through the “You Switch, We Donate, Kids Win” campaign, by making a generous donation to Packard Children’s when Hospital employees move their banking to SFCU.

Packard, Stanford Recognized for Environmental Practices

For the second consecutive year, Packard Children’s and Stanford Hospital & Clinics have received the Partner for Change (PFC) Award, recognizing health care facilities that establish environmental programs and continuously improve and expand upon these efforts. Packard and Stanford were recognized for success in recycling more than 10 percent of their total waste stream and for implementing a number of successful pollution prevention projects. These sustainability practices help to promote the health of patients, staff, and the local community.

Packard Pages in Action

For Nina and James Van Harn, fundraising for Lucile Packard Children’s Hospital was easy. In just over a week, they raised more than $15,000 to support groundbreaking research led by Gregory Enns, MD, director of the Biochemical Genetics Program at Packard Children’s.

How did they do it? Using PackardPages.org, the couple quickly got word out to family, friends, and local businesses to sponsor their son Bennett’s team for a Mitochondrial Disease Awareness Walk in their hometown of Grand Rapids, Mich.

Bennett, 2, suffers from mitochondrial disease, a progressive and life-threatening disorder in which his body cannot adequately produce energy. With no known cure for “mito,” Bennett must endure ongoing care and frequent hospital stays. When his parents learned of Enns’ promising work to develop a treatment, they knew they wanted to help.

In September, the Van Harns and other families gathered for the two-mile walk around downtown Grand Rapids. “Our little ‘Get together and just walk’ turned into a really family-friendly, fun-filled occasion!” reports Nina.

A local massage therapist even donated her time at the event, and another young friend painted fingernails green to celebrate mito awareness.

With help from Packard Pages, the Van Harns’ fundraising efforts were easy and straightforward. They were able to customize emails to quickly contact and thank supporters. “And we love that the funds can go directly to support Dr. Enns,” Nina adds. “His research may make a direct impact on Bennett’s future and that of thousands of other children with mito.”

Packard Pages in Action

Host Your Own Event Today

Hosting a fundraiser is fun and easy! With the following tips and tools at your disposal, you can make a critical impact on children’s health in just a few steps:

- Planning tips and checklist to get you started
- Event timeline to keep you on track
- Ideas, spreadsheets, logos, and any other guidance you may need along the way
- Packard Pages to raise online awareness and support among family, friends, and colleagues

Packard Pages are perfect if you’re throwing a benefit event, gathering donations in lieu of gifts for a birthday or wedding, or honoring someone special. With our simple online fundraising tools, you can create a personal web page, share your story, watch your progress, and thank your supporters. Visit PackardPages.org to create your page today!

For more information about planning an event to benefit Packard Children’s or the Stanford School of Medicine, please call (650) 498-6328 or email communityevents@pfcch.org.
**American Girl Fashion Show**  
*Palo Alto Auxiliary*  
**Friday and Saturday, November 11-12**  
Los Altos Episcopal Church

**Jewel Ball**  
*San Francisco Auxiliary*  
**Saturday, November 12**  
The Fairmont Hotel, San Francisco

**Holiday Boutique**  
*Charter Auxiliary*  
**Friday and Saturday, November 18-19**  
1228 Douglas Street, Redwood City

**Lucile Salter Packard Society Holiday Tea**  
*Speakers from Obstetrics featuring Kay Daniels, MD*  
**Thursday, December 8**  
Allied Arts Guild, Menlo Park

For more information and other upcoming events, please visit supportLPCH.org/calendar.

---

**Don’t Miss This Opportunity**

Now through the end of the year, you can potentially reduce your tax liability by gifting an IRA distribution directly to Packard Children’s.

Thanks to the IRA Charitable Rollover provision, any amount up to $100,000 may be distributed. You can also designate your gift to support a program or area of your choosing.

Here are the details:

- You must be 70 ½ or older.
- The distribution must be completed by December 31, 2011.
- Your IRA administrator must make the distribution directly to Packard Children’s.

For more information, please contact Donna M. Bandelloni, Director of Gift Planning, at (650) 736-1211 or visit us online at supportLPCH.org/legacy.

*This information does not constitute professional tax or legal advice. Please consult your tax and legal advisors regarding your specific situation.*