

Grand Rounds, a health tech startup, raises \$40 million

by Andrew Nusca

June 24, 2014

A startup's co-founders turn a harrowing personal tale into a motive to build a software platform that makes medical expertise accessible to almost anyone.

Lawrence "Rusty" Hofmann remembers the moment when he realized something was wrong.

It was two and half years ago. He had just taken his eight-year-old son Grady, the youngest of his three boys, swimming in Monterey Bay on the California coast. They had swum a half a mile that morning, and the two were eating lunch to celebrate and restore some energy. Hofmann gazed past his son's green hooded sweatshirt and into his eyes. Wow, his eyes look yellow to me. Hofmann, a professor and chief of interventional radiology at Stanford University, looked again. That would mean he'd have a liver problem. Nah, that can't be. He's healthy.

They finished lunch and went home. Grady plopped down on the couch. Hofmann's wife looked at the boy, then frowned. "Do his eyes look yellow to you?" she asked Hofmann, unprompted. Normal levels of bilirubin, a product of the metabolic process best known for temporarily turning the skin of infants yellow, is less than 1 milligram per deciliter. To see it in someone's eyes suggests levels of at least 3.5 milligrams per deciliter.

Yes, something must be wrong. The Hofmanns hopped in the car and headed to the hospital, where Grady was tested. The result came in: 3.8 milligrams per deciliter. "He was at the threshold of detectability," Hofmann says.

The doctors followed the boy as an outpatient for seven days to see if his liver enzymes would begin to purge his body of the excess toxin. The Hofmanns had him tested every day. Each day, the boy's levels got worse. By the end of the week, his levels reached 16 milligrams per deciliter. "It was scary," Hofmann says. Grady is admitted to the Lucile Packard Children's Hospital in Palo Alto, where gastroenterologists and a number of specialists—liver transplant, immunology, infectious disease, bone marrow transplant—look him over. It's 4 p.m. on December 28, 2011, just three days before the New Year, and Grady's blood counts were all over the place. "I have the heads of all these hospital services in my room, plus their teams, and I looked in their eyes," Hofmann says. "What I saw scared the shit out of me."



Grand Rounds co-founders Owen Tripp and Lawrence "Rusty" Hofmann. Photo courtesy Grand Rounds

Hofmann, a medical expert in his own right, could read their faces. They were scared. They didn't understand what was going on, not exactly—there were too many possibilities. "What's the problem?" Hofmann asks them, searching for something, anything. They tell him that his son's liver is in bad shape. They can't perform a biopsy; his platelet count is too low. Hofmann presses them: yes, you can do this. "I biopsy people like this every day using interventional radiology techniques," he tells them, explaining the procedure. And so they do it. One of the people that performs the procedure is a former trainee of Hofmann's.

The results come back. Grady is having an immune reaction in his liver, where bilirubin is produced. The medical team decides to give him medicine to manage the reaction. They've never done this before. They administer the drug and within 24 hours the boy's liver starts to improve. And over the course of three weeks, his liver continues to get better. "What's really cool is that they've implemented a Grady Protocol at Packard that has saved five kids' livers since then," Hofmann says. "My son changed medicine based on his care. But the reason they figured all this out is because his dad happened to be the chief of interventional radiology."

Grady's liver kept getting better, until it didn't. Almost three months after Hofmann first noticed yellow in his son's eyes, Grady's bone marrow just stopped working. It stopped making blood cells. "This diagnosis had an 80% fatality rate when I went to medical school," Hofmann says. So they brought the boy back to the hospital. The immune

process that was going on in Grady's liver is now going on in his bone marrow. The doctors told Hofmann that his young son faced a bone marrow transplant. So they conduct a tissue typing test on the rest of the family. Amazingly, they find a match—Hofmann. But there's a catch: most data on bone marrow transplants comes from sibling matches, not parental ones. That's how rare they are. There are risks of complications. The doctors don't know what to do: give the boy medicine to suppress his immune system and leave him at risk to the outside world, or take his father's cells and the increased risk that comes with them?

"There was debate on the stem cell transplant team which way to go," Hofmann says. "So OK, I'm a medical professional, I'm going to call the guy who wrote the paper at the N.I.H. on this. And he says, well, the reality is, with Grady's numbers the survival rate is around 50% to 75%. I don't like those odds—those odds are worse than Russian roulette. But there's a guy at the Fred Hutchinson Cancer Institute at Seattle, where bone marrow transplantation was invented, who might know more. I'm on the phone with him for two hours. He tells me the best bet is my transplant; the complication rate is higher, but the numbers are still small. And just so you and your team are comfortable, I will send you and your team a paper that won't be published for a year that shows our experience here at Hutch."

Grady's medical team review the unpublished data and decide to conduct the transplant. On April 19, 2012, Grady Hofmann receives his father's cells. Then he is locked in a 14-ft. by 14-ft. room

for 35 days so that his frail immune system can regenerate. "He could not leave the hospital, because he's like a bubble boy. We had to wait for his immune system to go," Hofmann says. "We had his ninth birthday party, and the next day he got admitted to the hospital for the transplant. You can imagine as a father, thinking, am I going to have another birthday with my son?"

After 35 days, Grady returns home. For nearly a year, his movement is restricted to his house and the hospital, to allow his bone marrow to reconstitute completely. Each day, he must take 11 medicines in the morning, three in the middle of the day, and 11 more at night. He will keep up the routine for 26 months.

"The care he got was exceptional. The doctors and nurses? They are rock stars; they saved my son's life," Hofmann says. "But what it gave me was a new view on health care." And the urge to find a way to make it possible for people who aren't renowned medical professionals to tap the minds of the best experts in their fields.

In 2011, Hofmann and serial entrepreneur Owen Tripp founded Grand Rounds, a San Francisco-based health technology startup that makes it possible for companies to give their employees access to medicine's brightest minds. The myriad complexities of the United States health care system are well-known, but Grand Rounds attempts to work outside of the system with the approach that accurate care—with a "second opinion" from a true medical expert for the condition in question, regardless of geographic location—will ultimately cost patients, families, companies, and the system as a whole less.

The company offers two primary services: "visits" and "expert opinions." For a visit, Grand Rounds will match you (and your medical records) with the top two nearby physicians specializing in your condition, handle the appointment logistics, and follow up to see if you received appropriate treatment. For an opinion, Grand Rounds will match you with a physician specializing in your condition, who will issue a written opinion "in a matter of days." The company also offers a "stat" service for employees admitted to a hospital and about to undergo a procedure. In return, Grand Rounds charges companies between \$6 and \$10 per employee per month, depending on the size of the company.

"It's about getting access to quality and people who can actually be the answer for a patient or someone who has been told they have a condition that they can't beat," Tripp says. "They may not exist in the immediate geographic area of the patient, but the person who's most researched on a neurological order is in Boston and you're in San Francisco—why should that matter? The big idea we're attacking is that everyone should have access to better care. And you also solve a problem for corporate America, that healthcare costs are yoking us and holding us back, and you can cut back on the expense line on corporate healthcare. That's not conditional; we know it to be true."

The problem, as Tripp characterizes it, is that too many medical professionals mistreat or undertreat conditions because they don't have the seasoned eye of someone who specializes in it. Grand

Rounds' software platform aims to connect the experts who know best with the patients who need it. "We find that two-thirds of the time, our expert makes a material recommended change to the diagnosis or treatment," Tripp says. "It's not whether a colonoscopy costs \$2,500 in one place and \$3,500 in another place. It's whether or not you needed it in the first place. We're seeing people who get too much care, surgery that they don't need—40% of the time, think about that—so the epidemic is not about the cost of a bandage but the appropriateness of care."

Silicon Valley venture capitalists seem to agree. Last May, the company raised \$10 million from Venrock and Harrison Metal Capital; on Tuesday, it will announce that it raised an additional \$40 million in a Series B funding round led by Greylock Partners and including its existing investors, bringing its total equity to \$51 million.

"In the U.S. we spend about \$3 trillion a year on healthcare. Twenty percent of the G.D.P. It's huge," says Joseph Ansanelli, a partner at Greylock Partners who will join Grand Rounds' board of directors. "About a trillion dollars of that is spent on health care that employers provide to employees. About 6% of your employees will take up two-thirds of the cost of health care. Everyone wants healthcare to be affordable, and there's a tension between affordability and outcomes. Grand Rounds is tackling both of those problems."

The company says it plans to use the funds to pursue customers, continue refining its quality scoring algorithm, increase its sales and marketing teams, and grow its mobile capabilities. Though the underlying technology for the company's software takes advantage of modern advancements such as electronic medical records—"Health care is now a technology problem," Hofmann says—the problems it addresses are age-old.

"What people think in America is that there are two tiers of healthcare, and they're right. But it's not wealthy versus poor; it's insider versus outsider," Hofmann says. "Insiders in healthcare are doctors, nurses, healthcare administrators, pharmacy and device executives and reps. Outsiders are everyone else, rich or poor. We need everyone to be able to get the care that Grady got."

Hightail, the cloud-based file transfer service, has been using the Grand Rounds platform since October 2012. The Campbell, Calif.-based company chose to add Grand Rounds to its employee benefits because it reduced anxiety and, unusually for a health benefit, extends to an employee's parents.

"I was looking for ways to provide something that our employees think we're taking good care of them," says Lynne Collins, Hightail's vice president of human resources. "If you can help an employee in a moment of crisis, or for a chronic injury, you're helping get them to that validation of possibilities for treatment and get out of the bureaucracy of the health system." Collins said that she, her father, and her brother all found occasion to use it since Hightail began offering the service. She added that it was still too early to tell whether Grand Rounds would reduce the company's health costs.

Evernote, the idea organization and archiving software company based in Redwood City, Calif., plans to offer Grand Rounds as an employee benefit later this year. Phil Libin, the company's chief executive, said that employee productivity and peace of mind were top drivers.

"Worrying about health issues for you or your family—it's a painful thing that takes up a huge amount of time," Libin says. "It's an enormous drain on people, financially, mentally, psychologically. If we can help with that, it makes for long-term satisfied employees." He added that, while expensive, escalating corporate health costs were not a primary driver for the decision. "Sure, I'd love to get healthcare spending down—I'd rather give all of my employees all a raise. But I'd rather manage up the quality of care and manage down the complexity."

A year after Grady's bone marrow transplant, his white blood cells had regenerated to the point where he was no longer at serious risk of a life-threatening infection. It was a long-awaited milestone; he could leave the house again. The family sought to celebrate, and drove down to the beach at Capitola, a small town in Santa Cruz County that overlooks Monterey Bay.

Long before he got sick, Grady was an avid surfer. It was a Hofmann family tradition, one that seemed relegated to only a memory while Grady was in isolation at the hospital. On Day 180, the family had rented a house here, just to break up the routine, but Grady's blood counts weren't high enough for him to surf with the rest of the family. "My wife and Grady would sit there and watch us," Hofmann says. "It was hard. My boys are down at the ocean almost every week, fishing or surfing. We live 45 minutes from the ocean. It's part of our life."

Today would be different. It was a beautiful California day in March, the thermometer edging up to 70 degrees. The skies were clear and blue, with almost no wind. The sun's rays were lapping with the waves. Seagulls made figure-eights high above the jetty. The family had marked out its spot on the beach. Though the water was cold, everyone was excited for the occasion.

A swell began to make its way toward the shore, and Grady—clad head to toe in a black and blue, full-body wetsuit and determined to ride a wave—grabbed his yellow boogie board, made his way out into the water, and waited. The swell came up behind him, the nose of his board rose up, and Grady began rushing toward the shore.

"And there he is, with his wetsuit, laying on the board, with his arms behind him, his head up, and the biggest smile I have ever seen on a child, riding this wave," Hofmann says. "This kid was probably poked 500 times or more for blood. Every day I asked him, 'How are you doing?' And he'd say, 'I'm doing good Dad, I'm doing good.' He hopped on and figured out how to stay on that wave to get through this thing."

And when the water receded around him, Grady stood up, gave a wave to his parents, and swam back out to catch another one.