FOR IMMEDIATE RELEASE
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Washington Research Foundation and the University of Washington Team Up for Newborns, Locally and Globally
Seattle, Wash.

Washington Research Foundation (WRF) is helping University of Washington clinicians and researchers—one a MacArthur Fellow—to develop BiliCam, an iPhone app that can help determine the severity of jaundice in a newborn without having to draw blood. BiliCam, which has the potential to improve healthcare in the U.S. as well as save lives in low-resource countries, is the subject of an online crowdfunding campaign. WRF will match all contributions to the campaign (up to $50,000).

Newborns often have mild jaundice, which is a yellowing of the skin. It is usually mild and resolves with treatment. However, in some babies jaundice can develop into a serious condition that leads to brain damage if left untreated.

“We’ve developed a screening tool that could eventually be used at home by parents to determine whether their baby’s jaundice level is mild or if they need to see a physician,” said Jim Taylor, UW professor of pediatrics and medical director of the UW Medical Center Newborn Nursery. This tool—in the form of an iPhone app—is called BiliCam.

“"The results of our initial study with 100 infants were extremely promising, and our next step is to show that BiliCam can work in a broader demographic,” said Shwetak Patel, UW associate professor in computer science and electrical engineering, and recipient of a 2011 MacArthur Fellowship. “We’re going to work with more children from different communities and with more varied skin pigmentation,” Patel said. “By gathering this additional data to train our machine-learning algorithms, we can make BiliCam even more accurate across all ethnicities and skin tones.”

Additional clinical studies will cost approximately $25,000 for each remote site, and for that, Patel and his colleagues have gone online: to a crowdfunding platform called USEED, hosted by the University of Washington. Online contributors can make tax-deductible gifts in varying amounts; with the WRF’s matching gift, the project leaders hope the project will soar, reaching its monetary goal.

That hope is shared by Washington Research Foundation, which was founded in 1981 to assist universities and other nonprofit research institutions in the state. “We are proud to help this technology to be tested on a broader demographic,” said Luciana Simoncini, director of research commercialization at WRF. “The BiliCam project is consistent with our mission of helping promising technologies — ones produced by Washington state’s research institutions — to reach their full potential and have a great impact on society.”

BiliCam’s creators, including former UW student Eric Larsen, now an assistant professor at Southern Methodist University, and current UW Ph.D. students Lilian de Greef and Mayank Goel, hope to save smartphone-using parents sleepless nights and unnecessary trips to the pediatrician’s office, but they also hope to have an even wider impact. In many low-resource countries, jaundice is under-diagnosed, under-treated and a leading cause of newborn death.

“With the help of WRF’s gift, and with the help of our community, we can make a real difference in taking care of infants in the U.S. where assessing the level of jaundice is a common worry for new
parents,” said Jim Stout, UW professor of pediatrics. “We also want to make a difference worldwide, where newborn jaundice still claims thousands of lives in low-resource countries.”

For More Information
For more information on BiliCam — including a video that shows how the device works — please visit the crowdfunding site at https://uw.useed.net/projects/141/home.