Personalized medicine is already here. Treatments targeted to specific individual biological or genetic characteristics, and the tests to match these to the right patient, are being used every day. The FDA has approved over 100 drugs for patients who have certain biomarkers as identified by new diagnostic tests. One-third of successful new drug applications since 2011 included genetic or other biomarker data.

Biobanks and Biomarkers

A biobank is a collection of biosamples such as blood from patients, plus their medical information. It allows researchers to connect disease patterns to certain types of individuals. Biomarkers are a critical missing link for the development of next-generation treatments. Cholesterol levels, tumor markers and genes are examples of biomarkers that can be used to predict risk and track biological processes.

Nonprofit patient-driven foundations are now key players in making medical innovations a reality. The traditional model of competitive government-funded research in academia, followed by competitive industry research to develop drugs, is being replaced by multi-party collaborations led by patient-centered foundations.

Personalized Medicine—Patient-Based, Patient-Driven

Vascular Cures is creating the first national vascular biobank—the Stoney Vascular Biobank, named after our founder, Dr. Ron Stoney. It will be a powerful tool to identify biomarkers that affect vascular health and advance treatments for vascular disease. Through the collaborative Vascular Cures Research Network, thousands of patients can be enrolled. By partnering with government and industry, new discoveries will be accelerated.

You can now drive the discovery of cures. Many of the discoveries we read about in the news such as a new drug to treat a certain type of cancer or a gene linked to a certain disease may not yield actual treatments for many years, and for decades patients had no ability to influence the pace of development. That is no longer the case.

Vascular Cures is a patient-centered nonprofit relentlessly focused on solving the devastating vascular problems faced by hundreds of millions. By supporting us, you can ensure that personalized medicine becomes a reality in vascular disease.

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The systems are all in place. The customized database for patient and research information has been deployed. We’ve contracted with two world-renowned partners experienced in clinical trials to store the biosamples collected at each of the centers in VCRN.

We're enrolling patients at UCSF and the San Francisco VA Medical Center and have just launched at Dartmouth-Hitchcock Medical Center. Our goal is to add another 6 centers during 2014.

We’ve raised 20% of the $3 million campaign to build out the Stoney Vascular Biobank. This is a revolutionary resource for researchers around the world, to someday develop personalized treatments for patients with vascular disease.

The Vascular Cures Research Network (VCRN) is up and running!

Each participating center in the Vascular Cures Research Network adds more patients, data and biosamples to the Stoney Vascular Biobank. In turn, as researchers use these samples, new research results get added to the database.

Most capital campaigns are for buildings that enable important initiatives at a single location. The Stoney Vascular Biobank is on a much bigger scale—a dynamic “library” that grows exponentially and accelerates discoveries that benefit patients. The chart below describes VCRN results to date and upcoming milestones.

### Results & Milestones

#### 2011–2012

- **INFRASTRUCTURE**
  - Identified first biomarker to predict healing
  - Established the biobank to store blood and DNA samples
  - Built a custom database
  - Created a world class Scientific Advisory Board

#### 2013–2014

- **GROWTH**
  - **Goals**
    - 7 centers
    - 200 patients enrolled
    - 2 VCRN research projects
  - **Centers**
    - UCSF/SFVA
    - Dartmouth-Hitchcock
    - VA Puget Sound/U of WA
    - U of FL/No FL–So GA VA
    - U of Pittsburgh/VA
    - + 2 more

#### 2015–2016

- **IMPACT**
  - **Goals**
    - 10–15 centers
    - 2000 patients enrolled
    - 2 VCRN research projects
    - 2 new biomarkers
    - 3 corporate partners
  - Researchers around the world using the Stoney Vascular Biobank

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**Cyclists & Vascular Injuries**

Mary Lancaster had been an avid biker for many years when, at only 36, she started experiencing pain and weakness in her left leg. Her doctors realized the cause of the weakness was impaired blood flow, probably due to an injury from cycling.

The injury created a 6” blockage in the femoral artery, and Mary underwent bypass surgery. She thought the problem was solved. But opening a blocked artery anywhere in the body causes trauma and abnormal scarring inside the arteries is not uncommon. In fact, 30–50% of bypass or stent procedures for peripheral artery disease have to be repeated in only a few years. Mary’s first procedure caused a cascade of problems, and she needed seven more surgeries and angioplasties.

The Vascular Cures Research Network will help to answer the question of why a patient like Mary, who is otherwise perfectly healthy, had to face the problem of repeated surgeries.
**LETTER FROM THE CHIEF MEDICAL OFFICER**  
Michael S. Conte MD

The last two decades have seen extraordinary advances for patients with vascular diseases such as stroke, aneurysms, hypertension, and peripheral artery disease. As surgeons who use new technology every day, however, my colleagues and I know that the true benefits won’t be realized until we are able to solve some of the problems of biology. Angioplasty, stenting and bypass surgery save lives, but they can also cause excessive inflammation and scarring, which ultimately can lead to permanent disability and even death.

To improve long-term outcomes, we have to better understand the processes that drive vascular healing, develop the diagnostic tests to predict the high risk patients, and be able to provide individualized treatments.

The Vascular Cures Research Network and Stoney Vascular Biobank will be incredible game-changers for researchers around the world in academia, government, industry and healthcare. Vascular Cures has the unique ability to make this resource available to all without the constraints of government or industry. And we have the passion that comes from seeing patients every day who desperately need solutions.

**“2014 is the crucial year. All the building blocks are in place, we’re enrolling patients and we’ve already made important discoveries.”**

The world-class collaborators are onboard and ready to go. If it doesn’t happen now, the window will close. This is an enormous opportunity, and no one else can or will do it.

Thank you for your generous support.

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**New Directors**

**David Rae** is an Audit Partner in KPMG’s San Francisco Life Sciences practice.  
“We need achievable approaches to drive health care innovation, especially for the massive drivers of cost today. The Vascular Cures collaborative model should have a major impact.”

**Russ Cox** is Chief Commercial Officer at Jazz Pharmaceuticals.  
“My brother suffered a fatal stroke when he was in his mid-forties, so I know first-hand that vascular disease can strike people of all ages. Vascular Cures will fundamentally change patient outcomes.”

**Vascular Cures provides an annual 3-year career development award to promising vascular surgeon-scientists who combine their clinical practice with novel patient-centered research.**

Dr. Thomas S. Monahan, assistant professor at the University of Maryland School of Medicine, is the winner of the 2013 Wylie Scholar award. He is working to identify new biological targets for therapy to reduce excessive intimal hyperplasia, or tissue formation, after procedures such as angioplasty and bypass surgery.

Dr. Monahan’s chief and mentor is Dr. Rajabrata Sarkar, our 2005 Wylie Scholar.

Dr. Thomas S. Monahan, MD, 2013 Wylie Scholar and Rajabrata Sarkar, MD, 2005 Wylie Scholar
Estate Planning for Future Cures

Many people choose to support Vascular Cures by making a provision in their estate plan. A gift which can be used in the near term will have an immediate impact on cures. Please let us know if you have made a bequest to Vascular Cures.

Vascular Cures Supporters Gather at CIRCULATE!

Vascular Cures’ annual gala CIRCULATE! was held at the exclusive Menlo Circus Club on Saturday, September 28th and raised over $160,000 to support vascular research.

The event was sponsored by Genentech, Life Line Screening, First Republic Bank, the Fogarty Institute for Innovation and Emergent Medical Partners.

Mike Koewler

A long-time friend of our founder Dr. Ron Stoney, Mike decided to be one of the lead investors in the Vascular Cures Research Network and Stoney Vascular Biobank campaign by making a three year pledge. “Ron is not only a friend, but a great doctor who has helped me and other friends find the best possible care. We are proud to participate in the Foundation's work to accelerate the search for a cure for vascular disease.”

Frank Hamilton and Linda Bennett

Vascular Cures is thankful for many years of support from Peggy Stiegele, who also left a generous bequest in her estate. Frank and Linda’s mother was a grateful patient of Ron Stoney and an early supporter of the Wylie Scholar program. “Our mother was passionately committed to medical research and innovation. She believed in both the work of Vascular Cures and the vision of its leaders.”

Save The Date:

CIRCULATE!
Saturday, September 6, 2014
Olympic Club, San Francisco