

## Energy, medical players woo VC dollars for spin-offs

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### THEN

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Headline: 'Medical and energy industries pumped about crossover ideas'

### THE STORY

The Methodist DeBakey Heart & Vascular Center, University of Houston and ExxonMobil Corp. came together late last year for the second Pipes & Pumps conference, a forum to boost idea-sharing between medicine and the oil industry to foster technological breakthroughs in both industries.

"There's a huge opportunity here in Houston, but there's not enough dialog between people who work in similar but very different environments," said Dr. Alan Lumsden, chair of the department of cardiovascular surgery at the DeBakey Center. "In the cardiovascular world, if I have a problem, I talk to other cardio guys who have a slightly different perspective. Engineers are dealing with the same fundamental problems but have a totally different perspective and totally different toolkit."

Lumsden first came up with the idea for Pumps & Pipes after sharing a flight with some oilfield engineers, and developed the event with Bill Kline, a research manager at ExxonMobil Upstream Research Co., and Dr. Ioannis Kakadiaris, director of UH's Institute for Biomedical Imaging Sciences.

"The last event was getting to know you — here's what we do, here's what you do, let's stimulate discussion," Kline said at the time. "This year we're attempting to be much more specific about real technology that has definite crossover value — robotics, nanotechnology and imaging."

Lumsden said they wanted to evolve the idea so it became more than just an annual meeting.

"How do we take a concept like this and build a nucleus of something that can be a medical device industry here in Houston?" he asked.

### NOW

This year's Pumps & Pipes 3, held Dec. 7 at UH, took the next step, focusing in part on funneling venture capital dollars into the fledgling industry collaboration.

Dr. Joe Cunningham, managing director of Santé Ventures LLC, an Austin-based venture capital firm that invests solely in the health care space, says his company has two criteria for deciding to invest in a proposal: If the all-in capitalization is less than \$20 million, which increases the returns if the technology hits; plus a strong business plan and "investable" chief executive.

"Everyone always says we need more venture capital dollars," says Cunningham, who was the event's keynote speaker. "You can find plenty of technology to invest in; it's finding that team that's together around the technology."

According to Cunningham, health care venture funds typically outperform other funds, but have yet to have the splashy success stories like information technology did in the 1990s.

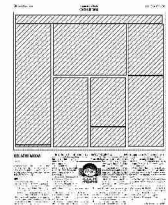
"Over time, though, health care is better," he says.

In 2008, health care funds made up about 30 percent of all U.S. venture capital invested, according to data presented by Cunningham. Of the \$8.5 billion invested in health care, 54 percent was in the biotechnology in pharmaceutical space, 31 percent was in medical technologies and 15 percent was in services and IT.

Developing pharmaceutical drugs is a huge industry that requires a ton of money up front and the products are usually sold off to the pharmaceutical giants while in development, which means there's less upside for investors. Developing bio- and nanotechnologies



Cunningham



and medical devices has more potential for that huge splash Cunningham says is needed to really start a boom, and he thinks that can happen in Houston.

“The state is putting a lot of money in, and Houston has the largest medical center in the world,” he says. “Something will be the catalyst.”

The number of venture capital firms in Texas — and the central U.S. as a whole — pales in comparison to those on the coasts, where a lot of companies that probably shouldn’t necessarily get funded can still find money, Cunningham says.

Frank Perez, president and managing director of Houston-based Mil-etus Ventures LLC, has traditionally specialized in IT and media ventures, but has started to look at biotechnology and health care.



**Perez**

“It seems to be a fruitful market and Houston is a natural place to do it,” he says.

This year’s Pumps & Pipes was Perez’s first, but he was asked to sit on a community committee at DeBakey looking to help develop a technology-export pipeline from the hospital system and

area research and development labs.

“I think they are close to executing something in the next 12 to 24 months,” he says. “They need to put together the infrastructure and resources, and they recently hired (director of technology development) Stephen Igo a few months ago. It’s all about mentoring and putting together entrepreneurs who have done start-ups and can build an effective CEO stable to move these businesses forward.”

It’s also about capitalizing on the next great demand wave, Cunningham says.

Significant advances in cardiovascular medicine have greatly reduced heart disease, which should soon be replaced as America’s No. 1 killer by cancer, according to Cunningham. Also, health care reform is significantly changing the game. Both of these factors, he says, create evolving “pain points” in the industry where demand for emerging technologies will be greatest.

Just as the combustion engine, computers and, in turn, the Internet, helped revive struggling economies of decades past, Cunningham suggests so-called “clean tech” in the energy space and biotech in medicine can turn the economy around.

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**Panelists from Pipes & Pumps 3 met at the University of Houston on Dec. 7 with an added focus of finding venture capital funding.**