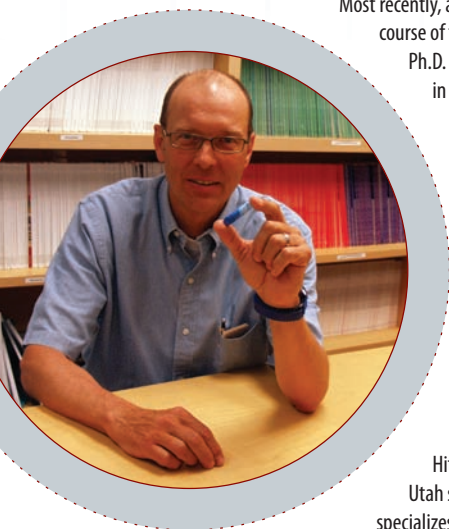


Robert Hitchcock spotlight

Engineer co-founds Catheter Connections to help reduce IV infections

Robert Hitchcock is no stranger to challenge. In fact, throughout his 30-year career as an engineer, he has welcomed more and more of it into his life.



Robert Hitchcock, Ph.D.

Most recently, after advancing in the corporate world over the course of two decades, he returned to school to get a Ph.D. in bioengineering from the University of Utah in 2001. Since then, he started teaching at the U and has become one of the champions behind medical device development and commercialization on campus.

"I'm the kind of person that likes challenges, because I believe that challenges turn into opportunity," says Hitchcock, whose research focuses on device development, sensors and tissue engineering.

One of his latest challenges is a case in point.

Hitchcock is a co-founder of a new University of Utah startup called Catheter Connections, which specializes in developing medical devices to help prevent catheter-related infections during intravenous (IV) therapy. Their first product is called the DualCap™, which is a cap system

designed to cover and disinfect infusion access points when they are disconnected between treatments.

Nothing like the DualCap™ is on the market today, even though the concept is relatively simple.

"These types of devices are absolutely necessary to protect patients," says Hitchcock, who got the initial idea for the DualCap™ from nurses at the VA hospital. "This is something that should be used with virtually all types of catheter infusion systems."

Typically, when health care workers disconnect catheters between treatments, they leave the lines open and exposed to a variety of contaminants. The results can be disastrous. About 24 percent of patients in the United States who have certain types of intravenous catheters contract infections, causing an estimated 20,000 deaths and \$11 billion in costs, according to a recent investigation.

The DualCap™ is poised to reduce these complications by providing an easy way to lower the risk of catheter-related infections.

"The number of preventable deaths is staggering," Hitchcock says. "It's simple devices like this that can have a significant impact on people's health."

One of the major improvements provided by the DualCap™ is the elimination of human error when disinfecting catheters. Standard practice usually requires that a health care worker swab the line to disinfect it, but this is often overlooked or done poorly. The DualCap™ eliminates the need to do anything except twist a small cap onto the catheter

Bridging the gap between research and business

Entrepreneurial Faculty Advisors help researchers develop products and achieve impact

Great research requires more than success in a laboratory or library: it requires success in the real world and impact in the lives of average people. That is the message promoted by an innovative group of faculty advisors at the University of Utah.

Now in its third year, the Entrepreneurial Faculty Advisors (EFA) helps faculty members bridge the formidable gap between original research and commercialization. The group helps by providing in-depth advice on every aspect of bringing a product to the marketplace — from company conceptualization to startup, funding, product launch, business development and growth.

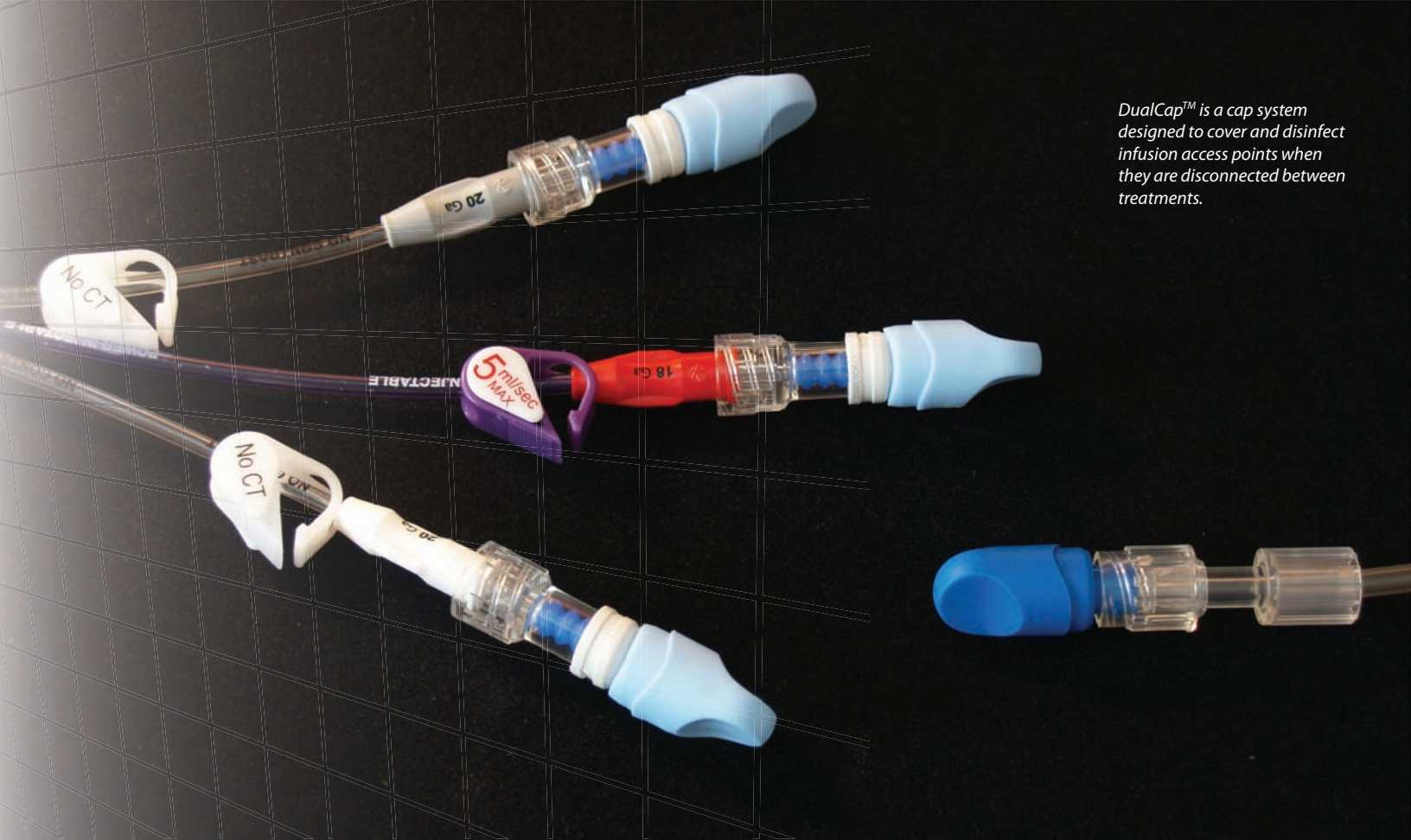
The EFA consists of 10 accomplished faculty members from departments across campus. Each has extensive experience with research, product development, company formation, and attracting investment capital and management. Their help allows other faculty to develop as entrepreneurs, create viable businesses and increase the likelihood that new

technologies will have an economic and social impact in the state.

The group is led by Dr. Glenn Prestwich, the U's Presidential Professor of Medicinal Chemistry and President Michael Young's special assistant for faculty entrepreneurship. He launched the EFA program in 2007 and is one of its strongest advocates.

"It takes a village to build a successful company," Prestwich says, emphasizing the need for entrepreneurial faculty to work across disciplines. "It takes physicians, chemists, nurses, engineers and entrepreneurs — many skill sets are required to develop a new product."

What the EFA encourages is nothing short of a paradigm shift, Prestwich explains. "What is needed is customer-driven marketing approach, which is unfamiliar to most academic scientists."



DualCap™ is a cap system designed to cover and disinfect infusion access points when they are disconnected between treatments.

end and infusion line.

"When we develop technology that takes the human variable out of certain procedures, we end up normalizing that procedure for all health care workers under all conditions," Hitchcock says.

He is quick to point out that he has not succeeded by working alone. Catheter Connections and his other efforts have required many ideas and support from others inside and outside the U. Help has come from outside collaborators, University physicians, talented

students, the Technology Commercialization Office and many other sources.

"This is clearly a team effort," Hitchcock says. "It requires a business team, a development team, a manufacturing team."

Yet there is little doubt that efforts that have resulted in products like the DualCap™ have also been fueled by Hitchcock's constant pursuit of new challenges. Without capable researchers and managers who welcome adversity, few new products would ever reach the marketplace.

Research can benefit from considering the marketplace before a project begins. By starting with a consumer need before determining what to study, researchers are often better able to develop ideas and products that will have commercial success and widespread influence.

While research is a major component in the development of a new product, it's only the beginning. If the focus is a medical technology, for example, creating a company around the product and getting it approved for use can take millions of dollars in financing and years of testing.

The best way to overcome these challenges is by networking with people who have already been through it before. The EFA fills this need by pointing researchers to the right people and resources to be successful. Whether a researcher wants to know if an idea has a potential market or sources for private funding, the EFA can help.

To develop as a faculty entrepreneur can be viewed as a normal progression, from understanding the problem to developing solutions to the problem, Prestwich explains. Entrepreneurial faculty think beyond the basic research academics, translate basic science to applied technology, create products as well as papers, strive to understand the busi-

ness of science, appreciate the importance of market research and respect intellectual property.

Indeed, most faculty members are predisposed to becoming entrepreneurial in the business sense, because they are already intrinsically entrepreneurs, Prestwich adds. To name a few qualities, they are self-reliant, organize groups, create research programs, seek funding and maintain focus amidst chaotic inputs. The EFA wants to tap into these qualities and supplement them to help faculty make a difference and help the University of Utah contribute to the good of the state and country.

Watch for more developments from the EFA, including an expanded network of faculty members and a new campus-wide award. The Distinguished Innovation and Impact Award will recognize two or three outstanding innovators whose accomplishments reach beyond academia.

Learn more at www.techventures.utah.edu.