

## WELCOME TO THE UR VENTURES TECHNOLOGY REVIEW

### YOUR GUIDE TO WHAT'S HAPPENING AT UR VENTURES AND AT THE UNIVERSITY OF ROCHESTER

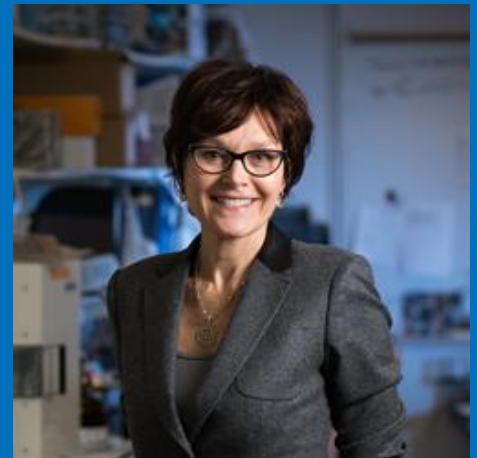
#### THE AWARDS KEEP COMING FOR A ROCHESTER STARTUP

Fresh off their win at the Innovation World Cup for Wearable Technologies (see [URVTR #008](#)), **Health Care Originals** has been named one of four finalists in the Healthcare category at the 2017 **Internet of Things (IoT) Innovation World Cup**. Winners in all seven categories will be announced 1 March 2017 at the Mobile World Congress being held in Barcelona.

This global innovation competition judges ground-breaking IoT technologies in the categories of Smart City; Automotive; Transport, Logistics, & Surveillance; Industrial; Smart Building & Home Automation; Healthcare; and Security. This year, over 400 technologies originating in more than 70 countries were considered. To view a list of the 28 finalists, [click here](#).

Health Care Originals has licensed patented University of Rochester technology and is commercializing a wearable device that monitors asthma symptoms in order to predict the onset of an asthma event. A companion app and web portal can alert a parent or healthcare provider whenever symptoms deviate from the norm. This technology, Automated Device for Asthma Monitoring and Management (ADAMM) was developed at the University by **Hyekyun Ree, Ph.D.**, an Associate Professor in the School of Nursing and **Mark Bocko, Ph.D.**, Professor of Electrical and Computer Engineering.

The UR Ventures Technology Review is your monthly look at innovation and technology commercialization at the University of Rochester. In this issue, you will learn about another impressive nomination for Health Care Originals, a successful funding round for Adarza BioSystems, and recent developments with our vaccine against the canine flu. Meliora!



**LYNNE MAQUAT, PH.D.**  
Receives **Lifetime Achievement Award in Science** from **International RNA Society**.

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## Keeping Man's Best Friend Healthy

Like humans, dogs, too, can contract an influenza virus. And – like a human flu – the canine flu isn't much fun. Dogs face reduced appetite, sneezing, coughing, and a general malaise. The virus (H3N8) is transmitted from dog to dog, especially when they are in close quarters. Currently, there is a vaccine available, but it requires two visits to the veterinarian and two injections – weeks apart – of an inactive form of the virus. Not only is this inconvenient and uncomfortable, but it only provides a limited, short-term protection for the dog. The American Veterinary Medical Association considers the canine influenza vaccine a “lifestyle” choice and [does not recommend it for every dog.](#)



UR Ventures has filed multiple patent applications on developments surrounding this vaccine, and is in talks with industry partners to develop and commercialize this exciting breakthrough.

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Researchers at the University of Rochester, led by **Luis Martinez-Sobrido**, Associate Professor of Microbiology & Immunology, seek to do better with a live attenuated influenza virus formulation that triggers an appropriate immune response. The vaccine they have developed is delivered as a nasal mist, and is effective after a single dose. Although H3N8 doesn't pose a serious threat to humans at this time, a few simple mutations in the virus could transform it into a dangerous strain, such as those recently seen in swine and avian flu outbreaks. Since we do not currently possess an immunity to H3N8, a mutated version could quickly be a serious problem. Therefore, arresting the spread of the canine flu could protect humans, as well as dogs, in the future.

## Adarza BioSystems Completes \$17 Million Series C Closing

**Adarza BioSystems, Inc.** recently announced that it has closed a \$17M Series C financing. Proceeds from this round will be used to expand production capacity at their St. Peters, MO manufacturing facility further and to fund final development and initial product launch.

Founded in 2008 based on research out of the University of Rochester laboratories of **Lewis Rothberg, Ph.D.**, Professor of Chemistry and Chemical Engineering and **Benjamin Miller, Ph.D.**, Professor of Dermatology, Adarza BioSystems manufactures and commercializes their **Arrayed Imaging Reflectometry (AIR™)** label-free platform technology that enables the simultaneous detection of hundreds of analytes in a single drop of fluid. This powerful tool has applications in drug and vaccine development, infectious disease research, cancer detection, and many other fields. Research continues at the University of Rochester in support of Adarza's near-term and longer-term development plans.

3 X 5 RiverVest Fund II, LP, a joint project between **3 X 5 Partners** (Portland, OR) and **RiverVest Venture Partners** (St. Louis, MO) led the funding round.

Adarza BioSystems also announced the retirement of CEO Rand Henke. Bryan Witherbee, Ph.D. has come on board as President. Witherbee brings more than 20 years of experience in research and in bringing new products to market.

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