

# The Jacobs Institute Newsletter

*A Dose of Medical Innovation*

## In This Issue

[Positive Client Feedback](#)

[Synaptive Partnership](#)

[BNMC-Wide Summer](#)

[Camp](#)

[Brain Boot Camp 2016-](#)

[2017 Season Begins](#)

[Infonaut Partners with IBM](#)

[Watson](#)

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Welcome! The Jacobs Institute newsletter is where to find the latest information on our recent and upcoming industry programs, experiential learning opportunities, and community outreach events.

## Positive Client Feedback

### Clinical Immersion Programs Valued By Industry Professionals

Sixteen alumni of the JI's clinical immersion programs (CIPs) for sales representatives (sales reps) participated in an August webinar to share how CIPs increase their knowledge and skills, and improve and change how they do their jobs.

Three main things the JI heard:

1. The program helped them understand the breadth of information that a physician considers when making a treatment decision. One participant commented "an angiogram is only one piece of the complicated puzzle for these patients. The perspective from the physician is so much broader...As a rep, understanding this helps have more impactful conversations and I believe will lead to physician trust."



2. Reps emphasized how much confidence they gained and how they can hold their own when talking with physicians and clinical staff about complicated cases. One said, "A lot of accounts assume that you know a lot of this stuff. The program made a huge change...I can keep up with them and they recognize this quickly."

3. They learned tricks and tips during the program to share with physicians and cath lab staff at accounts. One alumnus said that the physicians at their accounts ask them to explain things to new residents and nurses.

## Partnership with Synaptive Brings New Technology

### Collaboration Impacts Key Partners

On August 2, the Jacobs Institute hosted neurosurgeons and neurosurgical residents and fellows in its Training Center to learn about Synaptive's

BrightMatter™ system, as well as how to use it in surgery. It is a hands-free surgical navigation system. The future generation of neurosurgeons who are being trained here in Buffalo have the privilege of experiencing this new frontier in medical imaging.

Synaptive's BrightMatter™ system provides visualization of the brain surface, which is then overlapped on the location of a brain abnormality, such as a tumor, allowing for a safer access route with fewer potential complications. The technology also allows for images of the physiology and brain function using Diffusion Tensor Imaging (DTI), something traditional MRI images do not show.



"This technology makes it possible for neurosurgeons to better navigate and plan for surgery. It is eye-opening for future neurosurgeons, who benefit from having this training module at the Jacobs Institute," said Jacobs Institute's chief medical officer, Adnan Siddiqui, MD, PhD, FACS, FAHA. "They are finally seeing what was previously unable to be seen."

Training of neurosurgeons in using Synaptive's product is crucial, since Kaleida Health's Gates Vascular Institute has acquired the BrightMatter™ system and is the first hospital in New York State and in the Northeast Region to use it to remove a brain tumor. Elad Levy, MD, medical director for endovascular services at Kaleida Health's Gates Vascular Institute (GVI), co-director of Kaleida's Stroke Center and chairman of neurosurgery at State University of New York at Buffalo, and his team used the BrightMatter™ Technology to remove a brain tumor last month. Other neurosurgeons are beginning to use the BrightMatter™ as well. Dr. Siddiqui has performed two surgeries already, using the BrightMatter™.

## Students Spend the Day at the JI

### BNMC-Wide Summer Camp

The Jacobs Institute was proud to be part of the first-ever campus-wide STEM Summer Camp for middle and high school students from the surrounding neighborhoods in partnership with Buffalo Manufacturing Works, the Buffalo Niagara Medical Campus Inc., and the University at Buffalo's NYS Center of Excellence in Bioinformatics & Life Sciences.

While at the JI, the students learned how blood circulates through the body and how to calculate their own heart rates. Dr. David Zlotnick, an interventional cardiologist, talked to them about peripheral arterial disease and the ways that they can prevent it through healthy life styles. He also shared some alarming facts such as the time it takes for blood vessels to return to normal following a big Mac (much more than you would think). The students spent some time with Paul Dressel, a medical illustrator, Mary Ann Kedron, Research Director, at UB Neurosurgery and Carrie Owens, a medical editor, talking about non-traditional careers in health care. The next gen interns taught them how to use the Mentice endovascular simulator to retrieve clots in stroke patients. Their day at the JI was capped off with the Marshmallow Challenge lead by Infonaut founder and CEO, Niall Wallace.



Throughout the week, the students worked on a capstone project, which involved creating 3D prosthetic hands that will be donated to children in need around the world as part of the Hand Challenge. They presented their work at a presentation for their parents, as well as engineers, scientists, entrepreneurs, and business leaders who work on the Medical Campus in dig at the Innovation Center.



## Back to School

### Brain Boot Camp 2016-2017 Begins

It's that time of year again! New school year means all-new Brain Boot Camps hosted by the JI. Brain Boot Camp is a special opportunity to teach schoolchildren about heart attack and stroke, signs and symptoms, treatments, and more. Students work on a medical simulator, see a 3D-printed heart, watch a

pre-recorded medical procedure (if appropriate), and tour our unique facility. Along the way, students will also hear various professionals tell about their own career path that brought them to the JI.



In 2015-2016 school year, the JI hosted nearly 700 students for Brain Boot Camps. The students ranged in age from 5th graders through Boys and Girls Club to University at Buffalo (UB) School of Management finance majors. Boot Camps aren't just for the school year. We have students in year-round, including a busy summer schedule drawing students at various programs around WNY.

Please visit our web site to learn more or to book your school's Brain Boot Camp today <http://www.jacobsinstitute.com/index.php/membership>

Our Friday Boot Camp schedule is filling up quickly, so act today!

## Infonaut Partners with IBM Watson

### Solving Hospital-Acquired Infection Challenge



Infonaut has partnered with IBM Watson, helping to solve the challenge of deadly hospital-acquired infections, through its surveillance, analytics, and behavior improvement platform.

Infonaut, a Jacobs Institute partner, is a big-data health analytics company based in Buffalo and a 43North ([www.43north.org](http://www.43north.org)) winner. Infonaut harnesses IBM Watson's analytical and predictive analytic capabilities to transform infection prevention and control for hospitals and health insurers to increase quality and patient safety. Hospital acquired infections are the 4th leading cause of death in the US with annual direct costs up to \$45B (CDC).

Infonaut uses Watson's cognitive computing capabilities to provide customized insights in the design and implementation of patient safety interventions that increase quality and improve infection prevention and control.

The Jacobs Institute mission is to create the next generation of medical technology to improve the treatment of vascular diseases--such as heart attack and stroke--in Western New York and beyond.

The institute was named in memory of the late Lawrence D. Jacobs, MD. Located in the heart of the Buffalo Niagara Medical Campus (BNMC) in downtown Buffalo, the Jacobs Institute is positioned between University at Buffalo's Clinical and Translational Research Center (CTRC) and Kaleida Health's Gates Vascular Institute (GVI).



As such, the Jacobs Institute is uniquely positioned to foster collaborations of the best minds and collisions of new ideas.

We invite you to **come innovate with us.**

Please visit <http://www.jacobsinstitute.com>

Sincerely, The Jacobs Institute

