Innovator
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Research Question?
Call the Office of Research at our central number: 413-794-3391

Practicing in a lab space
Performing a surgery is a learned process. Before a new type of surgery is offered at Baystate, it must be researched, tested, and practiced first. Dr. John Romanelli of the Department of Surgery stresses the importance of testing a breakthrough method of surgery before it is applied to patients. Within the past two decades, he has seen several new surgical methods implemented at Baystate; all because of benchtop-to-operating room research.

“Our research lab enables us to test new methods and perfect procedures,” he says. “Without it, we wouldn’t be able to advance the care we provide to our patients as effectively.” Here is some of the surgical research Dr. Romanelli has helped bring to Baystate:

**NOTES (Natural Orifice Transluminal Endoscopic Surgery)**
NOTES is a non-invasive surgical procedure which aims for less post-operative pain. NOTES suggests the idea of using the body’s natural orifices (e.g. the mouth) to take an organ out, rather than making an external incision. NOTES was originally proposed as a replacement for laparoscopic surgery, which uses a laparoscope (a thin tubular camera device) through a small cut, usually in the abdomen. The first instance of NOTES was used during a 2004 surgery in India to remove an appendix through a patient’s esophagus. Dr. Romanelli came to Baystate around this time and worked on surgical models to perform NOTES.

“Trying to do [NOTES] surgery with tools through an endoscope is like trying to mow your lawn with a pair of scissors,” says Dr. Romanelli. “With NOTES, we needed to develop an entire new generation of instruments for endoscopic surgery.”

**Testing NOTES through the NOVEL trial (Natural Orifice vs. Laparoscopy)**
After learning how to do the NOTES procedure in the lab setting with the proper tools and obtaining approval from the IRB, Baystate was invited to participate in the multi-center NOVEL trial in 2014 to compare the new technique versus laparoscopy for gallbladder removal. This trial tested the methods of NOTES to ensure they were ready to be implemented on patients.

“The NOVEL trial proved that it was safe to perform the NOTES procedure in patients,” says Dr. Romanelli. “Through the NOVEL trial, we discovered that NOTES cholecystectomy produces equal results to a laparoscopic procedure.”

**POEM (Peroral Endoscopic Myotomy for achalasia of the esophagus) procedure**
Another operation that Dr. Romanelli helped bring to Baystate is called POEM, meant to treat the symptoms of achalasia [of the esophagus]. Achalasia is a condition in which the muscles of one’s esophagus do not relax, causing discomfort when eating or drinking. Achalasia can be remedied with minimally invasive surgery down the throat where the muscles are cut to relieve tension.

Dr. Romanelli had read about the POEM procedure in a 2010 issue of Endoscopy. The paper, written by a Japanese surgeon, described the concept of using tools designed for endoscopy to cut open the esophagus muscles. Intrigued by this paper, Dr. Romanelli and Dr. David Desilets from the Division of Gastroenterology emailed the author and traveled to Japan in 2011 to train with him in the POEM surgery. Over the course of the three days in Japan, Dr. Romanelli observed five POEM procedures. Dr. Romanelli wrote an IRB protocol and took the POEM procedure back to the Baystate lab to practice. Once perfected, Baystate became the third hospital in the U.S. to offer this procedure.

“We have performed POEM on over 100 patients at Baystate [since its implementation],” says Dr. Romanelli. “Patients are even sent here from Boston to receive this procedure. Techniques from NOTES are used in the POEM procedure.”

**Benefits of our research lab**
“All of these procedures came to fruition at Baystate because of the research we have been able to perform in our research lab,” says Dr. Romanelli. “Using our fully-functional research lab, we are discovering important things and more direct, safe routes to perform certain surgeries. We investigate, ask difficult questions, research, and then apply it to patients. You don’t have to leave western Massachusetts to get complex, advanced care.”

Carolanne Lovewell, RLATG, CPA, Director of the Baystate Research Facility, Dr. John Romanelli, and Alexander Dufresne, RLATG of the Baystate Research Facility.
Meet the new Medical Co-Directors of the Human Research Protection Program (HRPP), Robert Baevsky, MD and Anna Tsirka, MD

As of October 2019, Baystate Health has two Co-Directors of the HRPP. Drs. Bob Baevsky and Anna Tsirka will be responsible for oversight of research studies and education. This is the first time Baystate has had two leaders simultaneously serving in this position.

Anna Tsirka, MD
Dr. Tsirka is a physician at Baystate Pediatric Cardiology, Assistant Professor of Pediatrics at University of Massachusetts Medical School-Baystate, and Director of the Fetal Cardiology Program and Pediatric Echocardiography Lab at Baystate. She has been with Baystate since 2006 and has been based at 50 Wason Ave. in Springfield since 2013. She became a member of Baystate IRB #2 since 2011.

Robert Baevsky, MD
Dr. Baevsky is an attending physician and Director of ED Informatics in the Emergency Department and Trauma Center. He is also an Associate Professor of Emergency Medicine at University of Massachusetts Medical School-Baystate. Dr. Baevsky began his Baystate career in the department of Emergency Medicine in 1993. He has been chair of Baystate IRB #1 for the past couple years.

Baystate researchers lead $10 million study of opioid use disorder treatment in Massachusetts jails

Over 12 million people annually in the U.S. are released from jail. Opioid use disorder (OUD) is highly prevalent, and transition back to the community is a high-risk time for overdose. Medication for OUD is a highly effective means to reduce overdose deaths. JCOIN, which stands for Justice Community Opioid Innovation Network, is part of the National Institutes of Health's $948 million HEAL (Helping to End Addiction Long-term) initiative. Baystate’s regional campus of the University of Massachusetts Medical School (UMMS-Baystate) has received one of ten JCOIN awards nationwide, focused on improving care for OUD in criminal justice settings.

“JCOIN will study implementation of resources to help inmates with OUD,” says Randall A. Hoskinson, Jr., Director of Research Development & Special Initiatives at UMMS-Baystate. Hoskinson, along with Baystate’s Dr. Peter Friedmann and Dr. Elizabeth Evans at UMass Amherst, is leading the Massachusetts (MA-JCOIN) effort. In 2018, Massachusetts’ legislature mandated a 4-year pilot to provide medication for OUD at seven county jails. This novel pilot provides an opportunity to examine effectiveness and costs of medication for OUD in jails,” says Friedmann, “as well as the challenges of continuing medication treatment during community re-entry.” The MA-JCOIN study has three aims:

1) To compare treatment outcomes, including overdose and rearrest, associated with the various forms of medication treatment among people with OUD who pass through these jails.

2) To understand the institutional facilitators and barriers to delivery of medication treatment in jail and during community re-entry.

3) To determine the cost and effectiveness of each of the forms of medication in jail from state policymaker and societal perspectives.

The MA-JCOIN team is working collaboratively with the seven jails and the Massachusetts Department of Public Health, as well as the national network of JCOIN sites.

“Findings will provide important lessons and best practices for jurisdictions nationwide whose jails seek to implement medication treatment as an evidence-based response to the opioid crisis,” says Friedmann.
Dr. Elizabeth Schoenfeld publishes Office of Research’s first “graphic abstract”

Can you tell your kidney stone patients the likelihood of a urologic procedure (without getting a CT scan)? Age 18-65, MA residents, 66k ED visits, 4 years of data:

Welcome to our ED! You have a kidney stone. So what next?

Dr. Elizabeth Schoenfeld of the Department of Emergency Medicine recently published the Office of Research’s first “graphic abstract” to accompany her paper “Association of Patient and Visit Characteristics With Rate and Timing of Urologic Procedures for Patients Discharged From the Emergency Department With Renal Colic.” Dr. Schoenfeld enlisted the help of Allison Litera, Digital Content Analyst in the Offices of Faculty Affairs and Research at UMass-Baystate, to illustrate the comic.

Dr. Schoenfeld describes the abstract: “Baystate researchers used the Massachusetts All Payers Claims Database to look at all patients seen in a Mass ED for kidney stones from 2011-2014. They found that for patients age 18-65, the majority get sent home (treated as outpatients) and most of those patients do not go on to need a urological intervention. However, the rate of both urological intervention and urology office follow-up was lower for patients with Medicaid. At 60 days, 13% of patients have had a urologic procedure, while this number was only 10% for patients with Medicaid. It is unclear whether this represents overuse for commercially insured patients or underuse for Medicaid patients.”

The field of graphic medicine has grown in popularity over the past several years. Graphic medicine is used to portray an otherwise complicated topic in cartoon form. The Baystate Health Sciences Library has a collection of graphic medicine titles for those who are interested. 

Contact the Health Sciences Library by calling 413-794-1865 or emailing library@baystatehealth.org to learn more about their collection of graphic medicine literature.
Meet the Researcher

**Name:** Daniel J. Skiest, MD, FACP, FIDSA  
**Title/Academic Rank:** Professor of Medicine  
**Department:** Internal Medicine, Division of Infectious Diseases  
**Number of years at Baystate:** Almost 15 years  
**What research training do you have?** I have not had formal research training. I am mostly self-taught and learned as I went along.  
**What got you interested in research overall?** I consider myself a clinician who became interested in clinical research in my career. During my residency and fellowship, I observed several clinical scenarios, and to my surprise, there were not any good studies and there was a surprising paucity of information in certain areas. I liked the idea of being able to come up with a relevant clinical question and then trying to find some answers. I also enjoyed the process of analyzing the data and writing the manuscript and/or presenting the findings to my colleagues. I liked the fact that I could make contributions to the literature, which would not only help other clinicians but ultimately improve outcomes for patients.  
**What is your area of research?** My primary areas of interest have involved Infectious Diseases, primarily HIV/AIDS. During my training in the late 1980s and the early 1990s, HIV was greatly feared. There were no effective treatments to treat the underlying cause. I realized that there was still a lot to be learned from this relatively new disease and that I was in a position to help patients. During my fellowship I worked on some clinical research projects on HIV, including a case-control study of HIV in the elderly. At the time there was very little literature on the topic.  
**How do you see your research improving care for patients?** The ultimate goal of research is to improve patient care. I appreciate the fact that I was able to make some small contributions to improving patient care.  
**What have been some of your favorite research projects to date that you have organized/participated in?** I have been involved in a number of multicenter and single center studies. While I was at UT Southwestern I was an investigator for the AIDS Clinical Trials Group, which is a multicenter network funded by the NIH. I was able to lead a multicenter national study and participate in several other multicenter studies.  
**Do you have any awards?** Yes, I was honored to receive the 2016 Weinberg Award for Academic Excellence at Baystate and I received the SmithKline Beecham Junior Faculty Award in Infectious Diseases at UT Southwestern.  
**What do you like most about your job?** I like the variety of my job. I have the opportunity to do clinical work and help my patients, mentor fellows and residents, and participate in clinical research while interacting with numerous interesting colleagues.  
**What do you do to unwind outside of work?** Biking, hiking, reading, traveling, and spending time with family.

 Rays of Hope Walk & Run aids research efforts to help find a cure for breast cancer

For the past 25 years, Rays of Hope Walk & Run Toward the Cure of Breast Cancer has been making a difference in western Massachusetts. Proceeds from the event support research at the Rays of Hope Center for Breast Cancer Research, innovative equipment, breast health education programs, therapies for patients, and resources for those who have breast cancer and those supporting loved ones with breast cancer.  
Thank you to our talented research team that gives us all the hope of living in a world free of breast cancer. To learn more about Rays of Hope, visit baystatehealth.org/raysofhope.

Baystate Franklin Medical Center earns $1M for mobile opioid addiction treatment clinic

In the fall of 2019, Baystate Franklin Medical Center acquired a $1 million grant to launch a program to provide mobile services to people suffering from, or at risk of, opioid use disorder (OUD). The grant was provided by the U.S. Department of Health and Human Services (HHS) through the Health Resources and Services Administration’s Federal Office of Rural Health Policy. More than $111 million was awarded to 96 rural organizations across 37 states as part of the Rural Communities Opioid Response Program. Many barriers exist to address OUD across the prevention, intervention, treatment, and recovery spectrum in Franklin County and the North Quabbin Region. People who need help are often unable to access and coordinate the services they need to get well. To address this critical and life-saving gap in services, Baystate Franklin Medical Center, in collaboration with the Opioid Task Force and other Consortium Partners, has used the funds to create the Bridge Clinic will identify, engage, assess, serve, and manage the population of people with OUD and at risk for OUD in our communities. Self-referrals or referrals from family or friends to the clinic are encouraged. For more information visit look4help.org.

Office of Research Holiday Town Hall held

The Office of Research hosted its Holiday Town Hall meeting on December 9th for a festive lunch with coworkers, complete with a roaring yule log.

The Innovator

We are interested in ensuring that Baystate employees and patients (and their families) are aware of the important research that goes on at Baystate and how it contributes to better patient care. The Innovator welcomes feedback and story ideas. Contact Allison Litera at allison.litera@baystatehealth.org to submit yours.