

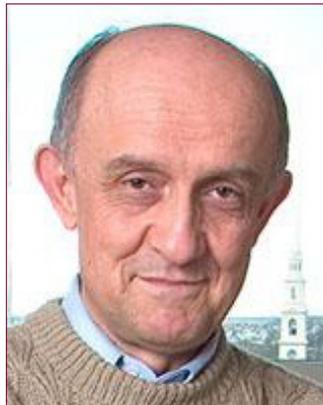
## Brown experts to lead statistical analysis of nationwide \$100M dementia study

PROVIDENCE – **CONSTANTINE GATSONIS**, professor and chair of biostatistics at Brown, will lead the statistical analysis for a new national study on whether having the results of a diagnostic scan for amyloid plaques in the brain can affect the care and medical outcomes of people with dementia or mild cognitive impairment.

To help find the answers, the \$100-million, four-year “Imaging Dementia — Evidence for Amyloid Scanning” (IDEAS) study will assemble a registry of more than 18,000 people who have had PET scans and will select a control group who have not. Researchers will then gather data for two aims:

1. assessing whether having a scan result affects how care is managed — for instance whether the scans result in changes in the therapies or counseling offered patients; and
2. determining whether patients who have scans are less likely to have adverse outcomes that require visits to the hospital or the emergency room in the following 12 months.

“The purpose of the IDEAS study is to examine how brain imaging, specifically an amyloid PET scan, helps guide doctors in diagnosing and treating Alzheimer’s and other dementias in cases where the cause of cognitive impairment



Constantine Gatsonis

is difficult to diagnose,” said **DR. GIL D. RABINOVICI, MD**, IDEAS study chair and associate professor of neurology at the University of California–San Francisco. “We believe the study will show that, in diagnostically uncertain cases, knowledge of amyloid status will lead to significant changes in patient management — such as earlier counseling and prescription of more appropriate drugs — that will translate into improved long-term outcomes.”

Brown researchers have direct experience with the kind of data in the study. The University’s Center for Statistical Sciences, which Gatsonis directs, hosts the biostatistics center for the studies of the National Oncology PET Registry.

The new study will generate a huge amount of data, and tasks such as identifying appropriate matches to make meaningful comparisons will be difficult, Gatsonis said. He and Brown School of Public Health colleagues Roe Gutmann and Ilana Gareen, who collaborated to help design the study, will lead the complex statistical analyses needed to answer the questions.

“The study poses major methodological challenges,” he said. “[They] require innovation in both statistics and computation.”

The study will be funded by the Centers for Medicare & Medicaid Services and various private sources. ❖

## School of Public Health holds annual research day

PROVIDENCE – The Brown School of Public Health held its annual research day on April 20th, which featured 59 poster presentations of research projects by undergraduates, graduate students, postdoctoral researchers, partner hospitals, and the Department of Health.

At the end of the poster presentation, awards were given to the best undergraduate, master’s, and doctoral or postdoctoral presenters. The winners in those respective categories were **LAUREN COLWELL**, **JOSEPH SERVADIO**, and **LIANGYUAN HU**. The runners up in each category were Katherine Caine, Brady Bennett tied with Elizabeth Kinnard, and Yi Zhao.

**TERRIE FOX WETLE**, dean of the School of Public Health, praised the “exceptional posters showcasing just a

tiny portion of the exciting public health research being done by Brown students, faculty, and community partners.”

### Public health figures honored

Dean Wetle concluded the event with a reception honoring three leading figures in public health: **STEPHEN BUKA**, chair of epidemiology; **WILLIAM RAKOWSKI**, associate dean for academic affairs; and **DR. MICHAEL FINE**, former director of the Rhode Island Department of Health.

In honoring them, Dean Wetle acknowledged their importance in the formation and continued success of the School of Public Health. She outlined their vital contributions, including their ability to recruit outstanding faculty to the School, their interdisciplinary and



internationally recognized research, their dedication to students, their valued leadership within the University, and their tireless service to the health and well-being of the public.

Buka, who is stepping down from his role as chair of the epidemiology department, describes Public Health Research Day as part of the “magic of conducting public health research at Brown University.” It’s a reminder, he says, “of the breadth and talent of the faculty and students.” As proud as he is of his tenure as chair, he has “even greater expectations” for the future.

In addition, Public Health Research Day “generates a lot of enthusiasm

among students and faculty,” says Rakowski, who is retiring this summer. And while the research on display demonstrates wide-ranging interests, there is also coherence. “It is something the School does as a unit. That makes it important.” Rakowski especially enjoys the combination of socializing and academics. “It’s fun to talk to the students about what they’ve done, and sometimes throw them a tough question or two,” he adds. “They kind

of expect it from me.”

In honoring Dr. Fine, Dean Wetle highlighted the important relationship between the School and the Department of Public Health, which had several of their own posters on display. When policy-makers and academics present side-by-side, particularly at an event such as Public Health Research Day, it drives home the School’s mission of learning public health by doing public health. ❖

## ED team at RIH publishes results of Google Glass to diagnose skin conditions

*Patients liked remote access to specialists not normally available in emergencies*



PROVIDENCE – One enterprising team of physicians at Rhode Island Hospital experimented with Google Glass to gauge the effectiveness, security and patient acceptance of a real-time, video dermatological consultation. The research results were published today in *JAMA Dermatology*.

Skin problems account for 3.3 percent of emergency department visits, and most patients wait months to see a dermatologist. For the patients who qualified for the trial, the emergency department physicians at Rhode Island Hospital used Google Glass – a pair of eyeglasses with a computer, camera and microphone built into the frame – to contact a dermatologist through a video link using Glass and running a third-party, Health Insurance Portability and Accountability Act (HIPAA)-compliant video platform. Later, patients were surveyed about their experience with teledermatology.

“While the patients prefer in-person visits, they said they preferred the video consultation over a more widely practiced telephone consult,” said **PAUL S. PORTER, MD**, the principal investigator and a physician in the emergency department of Rhode Island, Hasbro Children’s and The Miriam hospitals. “For patients, a fast and accurate diagnosis means a faster path to satisfactory treatment. A device

like this democratizes telemedicine because a hospital can start a program for a few thousand dollars and gain access to an experience that was only previously available at a much higher price point.”

Because of the interactive nature of the device, the teledermatologists were able to appreciate both the gestalt of nonspecific skin eruptions and specific dermatoses, or skin diseases. Additionally, the off-site doctors were able to interact with the on-site doctors by asking questions and requesting additional skin locations to examine. During the process of informed consent, medical staff explained to patients that no information was stored, and the live transmission was encrypted. The participants overwhelmingly believed that their privacy was protected.

Rhode Island Hospital was the first hospital in the U.S. to test Google Glass in an emergency department setting. The study began in March, 2014 and concluded after six months.

The study had several limitations: Because of the small size and single-site status, results cannot be generalized to other institutions; the accuracy of the diagnosis in the cases wasn’t measured; and the financial and workflow effects of the device weren’t addressed.

The study was funded by the University Emergency Medicine Foundation.

Dr. Porter, the principal investigator, is a physician in the emergency department of Rhode Island, Hasbro Children’s and The Miriam hospitals and assistant professor of emergency medicine at The Alpert Medical School of Brown University. Other researchers involved in the study were Jayne Bird, MD, and Sandy Chai, MD, of the department of dermatology, Rhode Island Hospital; Roger Y. Wu, MD, MBA, Megan L. Ranney, MD, MPH, and Brian Zink, MD, of the department of emergency medicine, Rhode Island Hospital; and Peter R. Chai, MD, MMS, of the University of Massachusetts School of Medicine. ❖