

# CRAIN'S NEW YORK BUSINESS

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## How MacArthur "genius grant" recipient is using small data to improve health: Q&A

HEALTH PULSE TEAM 

Deborah Estrin has a plan for the small data that people generate every day. The associate dean and professor of computer science at Cornell Tech and professor of public health at Weill Cornell Medical College sees potential in using data collected from individuals' mobile devices to benefit health care. In October, Estrin was named a [2018 MacArthur Fellow](#). She spoke with *Crain's* Jennifer Henderson about her small-data work and training technologists at the Health Tech Hub she founded at the Jacobs Institute at Cornell Tech. The interview has been edited for length and clarity.

### What is the focus of the Hub?

The Health Tech Hub is designed to create, train and enable technologists who understand the context of health and health care. Much of health happens when you're outside a clinical setting. There is growing interest in technologies coming into processes—mobile phones, apps, Fitbits—and conversations about artificial intelligence and personalized and predictive medicine. Understanding how different cancers evolve, how some people respond well to a medication and others do not, and how to improve the efficiency of a hospital system, all involve modeling and data analytics.

### What are some specific areas being addressed at the Hub?

Student startups out of the Health Tech Hub have included Shade, a wearable technology to measure ultraviolet radiation, which is important to patients with lupus or who are taking medications that make them sun-sensitive, and Nanit, a computer, vision-driven baby camera that I believe will ultimately contribute a great amount to our understanding of early childhood and infant health.

### How did your work evolve to have a focus on health?

In the middle of the 2000s, when mobile phones started becoming programmable, we started looking at them as distributed sensors, and that brought me to health care. We were able to gain insight into, at a finer granularity, people's behaviors, exposures, indicators and response to treatment.

## How can using small data from individuals benefit health and health care?

My device of choice is the smartphone. Continuous location trackers generate huge amounts of content. For instance, someone recovering from a lower-back injury may be trying to see whether acupuncture, ibuprofen or some new form of physical therapy is working for them. Their doctor may recommend they do some collection of things rather than take pain medicine. It's difficult for people to say my pain is 10% to 15% less. But if you look at their device—how much time do they spend out of the house, how long are they mobile as opposed to sedentary—those indicators relative to their baseline when they're in more pain might well show 10% to 15% improvement. Everyone is different, you can't diagnose somebody based on looking at their location, but you can observe trends—are they getting better, are they getting worse.

## What does receiving the MacArthur award mean to you?

One of the things that is most special to me is that this is an impetus to dig in and do a next thing. I have not figured out in detail what I'm going to do yet, in part, because I have this very busy day job. What I do think is important is that it addresses public good that is under-addressed by commercial activity.

## Columbia Doctors picks Colorado lieutenant governor as CEO

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Donna Lynne, a veteran health executive and Colorado's lieutenant governor, was named CEO of Columbia Doctors and senior vice president and chief operating officer of Columbia University Irving Medical Center. She will start Jan. 15.

Lynne will oversee operations at the 738-bed hospital in Washington Heights and lead the nearly 2,000 faculty physicians who are part of the medical group. She succeeds Columbia Doctors CEO Lindsay Graham, who started in 2017.

Lynne was appointed lieutenant governor in 2016 and also served as Colorado's chief operating officer. She ran to be the Democratic candidate for governor this year on a platform of achieving universal coverage in the state, notably getting "Fight for Colorado" [tattooed on her arm](#). She received just 7% of the vote in the primary, falling to eventual governor-elect Jared Polis. Her term ends Dec. 31.

But Lynne is no stranger to New York. She served 20 years in city government under mayors Ed Koch, David Dinkins and Rudy Giuliani, holding positions including first deputy commissioner at the office of labor relations, director of the mayor's office of operations and

senior vice president at the Health and Hospitals Corp. She has a doctorate in public health from Columbia's Mailman School of Public Health.

She also has worked on the payer side at Emblem's GHI and Kaiser Foundation Health Plan of Colorado, where she spent 11 years before becoming lieutenant governor.

"There are few health care executives in the nation who possess the remarkable depth of experience that Dr. Lynne brings to this key leadership role," said Dr. Lee Goldman, chief executive of Columbia University Irving Medical Center. —Jonathan LaMantia

## WellCare partners with diabetes-management startup

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WellCare of New York has agreed to use Fit4D, a Manhattan-based company that helps people manage their type 2 diabetes.

Fit4D offers a team of certified diabetes educators who can connect with members through telephone, mail and face-to-face visits. Its technology helps those coaches improve productivity and handle larger caseloads.

WellCare plans to first use the company with its Essential Plan members before extending it to other service lines next year. Fit4D's other health plan clients include Healthfirst and Humana.

By better managing members' diabetes, insurers can lower their costs, improve members' health and qualify for quality bonuses from Medicare, said David Weingard, Fit4D's CEO. A small percentage of members account for an outsize percentage of health costs, which could be curbed by focusing on medication adherence and lowering their a1C levels. "The ones costing the most money are not engaged," he said.

Weingard said the company is on track to work with 400,000 patients this year. It has about 165 employees, including its certified diabetes educators, some of whom work part-time but at least 20 hours a week.

Weingard declined to disclose Fit4D's payment arrangement with WellCare but said it charges clients based on the number of members enrolled. A portion of its payment is based on performance, he said.

"Fit4D's personalized coaching program complements WellCare's existing care-management resources and will provide yet another avenue to help our members living with diabetes

manage their condition and improve their overall health and well-being," Dr. Richard Petrucci, WellCare of New York's chief medical officer, said in a statement. —J.L.

## Catholic Health Services' Q3 profit dips 35%

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Catholic Health Services of Long Island's operating income for the first nine months of 2018 fell about 35% year over year, to \$24.3 million.

Excluding investment income, however, the health system's performance to date is slightly better this year.

Total revenue increased 5.7%, to \$2.08 billion, compared to \$1.97 billion for the same period last year. Net patient-services revenue also grew 6%, to \$1.94 billion.

Total expenses increased 6.5%, to \$2.05 billion, compared with \$1.93 billion in 2017.

One challenge the health system faces financially is the rising cost of its employee benefits, a spokesman said. Employee benefit expenses grew 10%, to \$326.9 million, in the first three quarters. To help address this challenge, the health system has put in place new wellness and prevention programs, the spokesman said.

Four of the health system's six hospitals had operating profits. Good Samaritan Hospital, St. Francis Hospital, St. Charles Hospital and St. Catherine Medical Center earned \$6.2 million, \$54.3 million, \$885,000 and \$5.3 million, respectively. —J.H.

## AT A GLANCE

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**MEDICAL RECORDS:** About 1 in 10 people who check their medical records online request a correction. A mistaken diagnosis, scan or lab test could lead to future mistakes in evaluation and treatment while errors in a person's personal information could make it difficult for providers to reach an emergency contact, [Kaiser Health News reported](#).

**PFIZER DRUG APPROVAL:** The U.S. Food and Drug Administration [approved](#) Manhattan-based Pfizer's drug Daurismo for the treatment of newly-diagnosed acute myeloid leukemia, a cancer of the blood and bone marrow, in combination with low-dose chemotherapy. The approval is for adults 75 and older with other chronic conditions that may prevent treatment with intensive chemotherapy, FDA said.

## Inline Play

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