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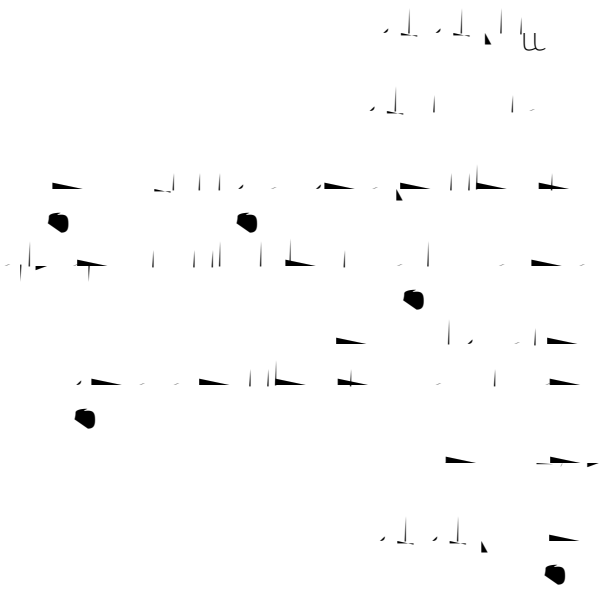


FROM THE CHAIR

Robert F. Kirsch

funding from

>50 institutions

12

Steve Fening

Crain's Cleveland Business'

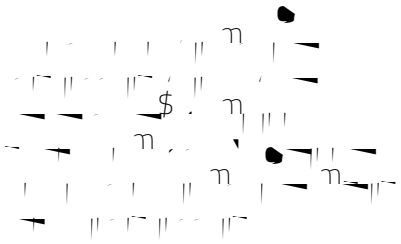
Colin Drummond

Financial Decision-Making for Engineers

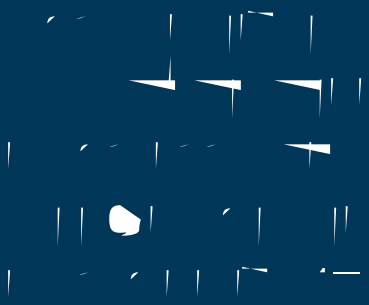
Bolu Ajiboye and Jeffrey Capadona

Nature Magazine,"

Xin Yu



FOR COMPUTATIONAL IMAGING RESEARCH



— Anant Madabhushi

NEARLY
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MILLION
2018

9
PROJECTS

6
FUNDING
AGENCIES

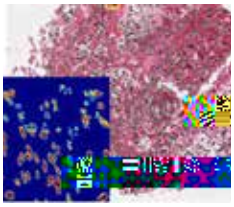
Last fall's issue of the Biomedical Engineering Department's newsletter included a profile of the Center for Computational Imaging and Personalized Diagnostics (CCIPD) directed by Anant Madabhushi, the F. Alex Nason Professor II of Biomedical Engineering at Case Western Reserve University. The overarching goal of the CCIPD is to extract as much value as possible from medical imaging scans to predict disease presence, prognosis and treatment response in order to facilitate patient management and appropriate therapy.

Between 2015 and 2017, the CCIPD received more than $13 million in total funding. That figure has since grown almost 70 percent, with the center receiving nearly $9 million in funding so far in 2018. "What is so exciting about this funding is that it's a recognition that you need decision support tools to complement and augment human decision-making. These tools are meant to empower pathologists, radiologists and oncologists, not obviate them," says Madabhushi. "The funding is truly a validation of the need and utility of this kind of technology."

The CCIPD focuses on four broad subject areas: image guided interventions, digital pathology, machine learning and personalized medicine, and computational diagnostics. The center's most recent awards touch upon all these areas.

Lung Cancer Risk Stratification

National Cancer Institute

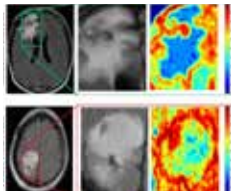


Risk Stratification of Head and Neck Cancers

National Cancer Institute

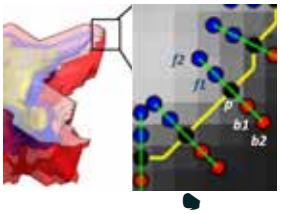
Predicting Treatment Response for Brain Tumors

Congressionally Directed Medical Research Program (CDMRP)



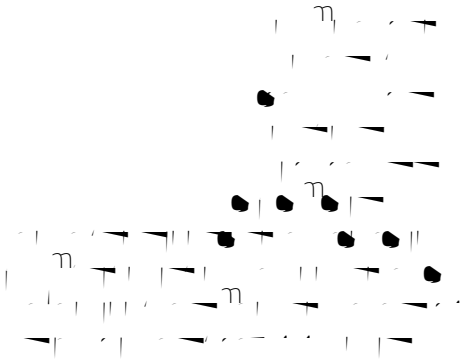
Lung Cancer Screening

Congressionally Directed Medical Research Program (CDMRP)



Breast Cancer Project

United States – India Science and Technology Endowment Fund



INNOVATIONS RECEIVE FUNDING BOOST FROM CASE-COULTER TRANSLATIONAL RESEARCH PARTNERSHIP

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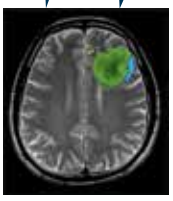

Research leads: Susann Brady-Kalnay, professor of molecular biology and microbiology; James Basilion, professor of radiology and biomedical engineering; and Andrew Sloan, professor of neurosurgery.

M l a a e d ec c e e e b c

Research leads: Tina Vrabec, research assistant professor; Elias Veizi, assistant professor of anesthesiology and perioperative medicine; Niloy Bhadra, research assistant professor of biomedical engineering; Jesse Wainright, research professor of chemical engineering.

O a a ace l a a a c

Research leads: Dominique Durand, the Elmer Lincoln Lindseth Professor in Biomedical Engineering; and Kingman Strohl, professor of physiology and biophysics.

P ! -ca e de ce ! l a dda ! a ca ce

esearch leads: Aaron Weinberg, associate dean for research, chair of the Department of Biological Sciences and professor; Umut Gurkan, assistant professor of mechanical and aerospace engineering; and Santosh Ghosh, senior research associate.

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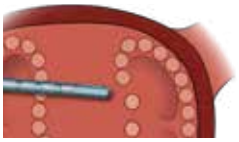


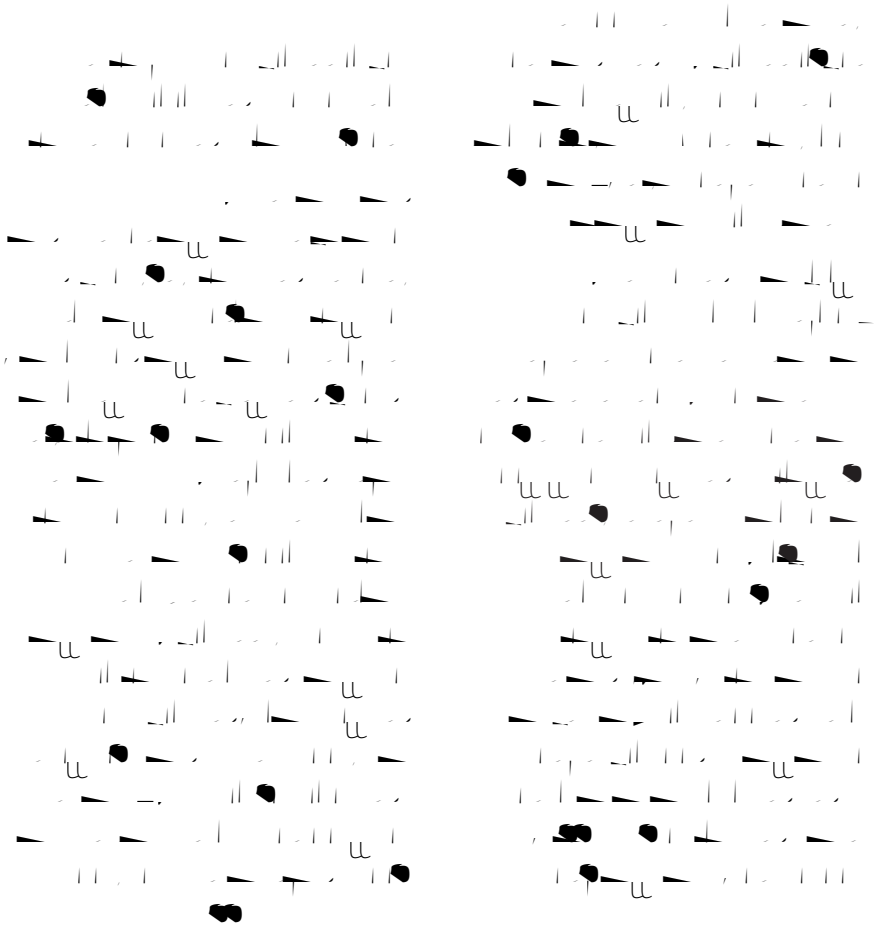
Research leads: Andrew Rollins, professor of biomedical engineering and medicine; and Mauricio Arruda, associate professor of medicine.

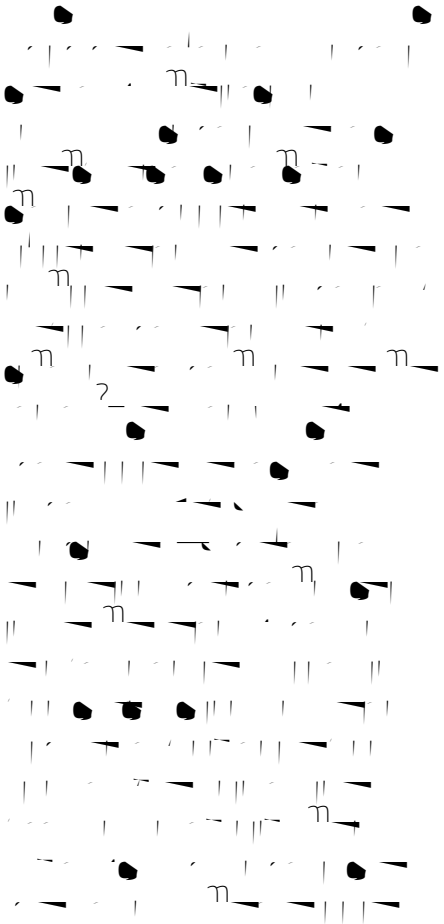
P ! -ca e de ce ! da c c b e b

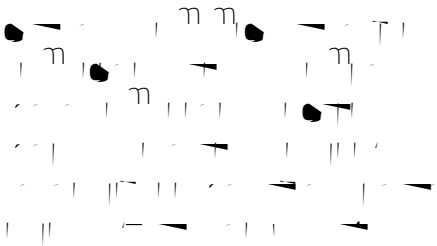
Research leads: Miklos Gratzl, associate professor of biomedical engineering; and James Chmiel, associate professor of pediatrics.

ON A MISSION TO SAVE LIVES

Researchers are fighting to save patients with the creation of synthetic blood platelets that promote hemostasis and healing.







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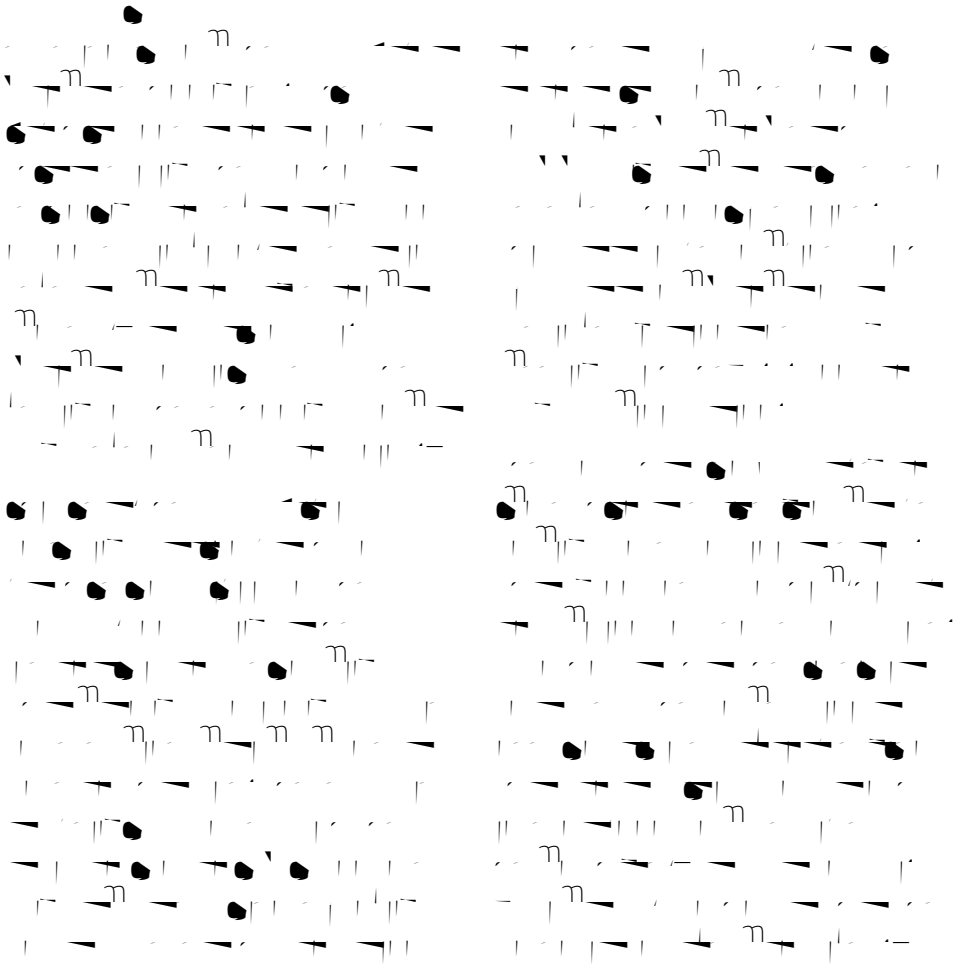
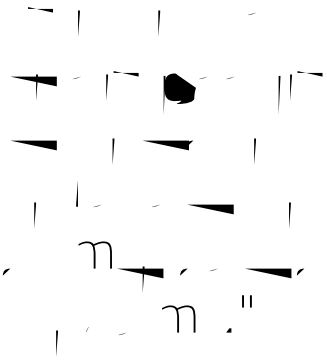
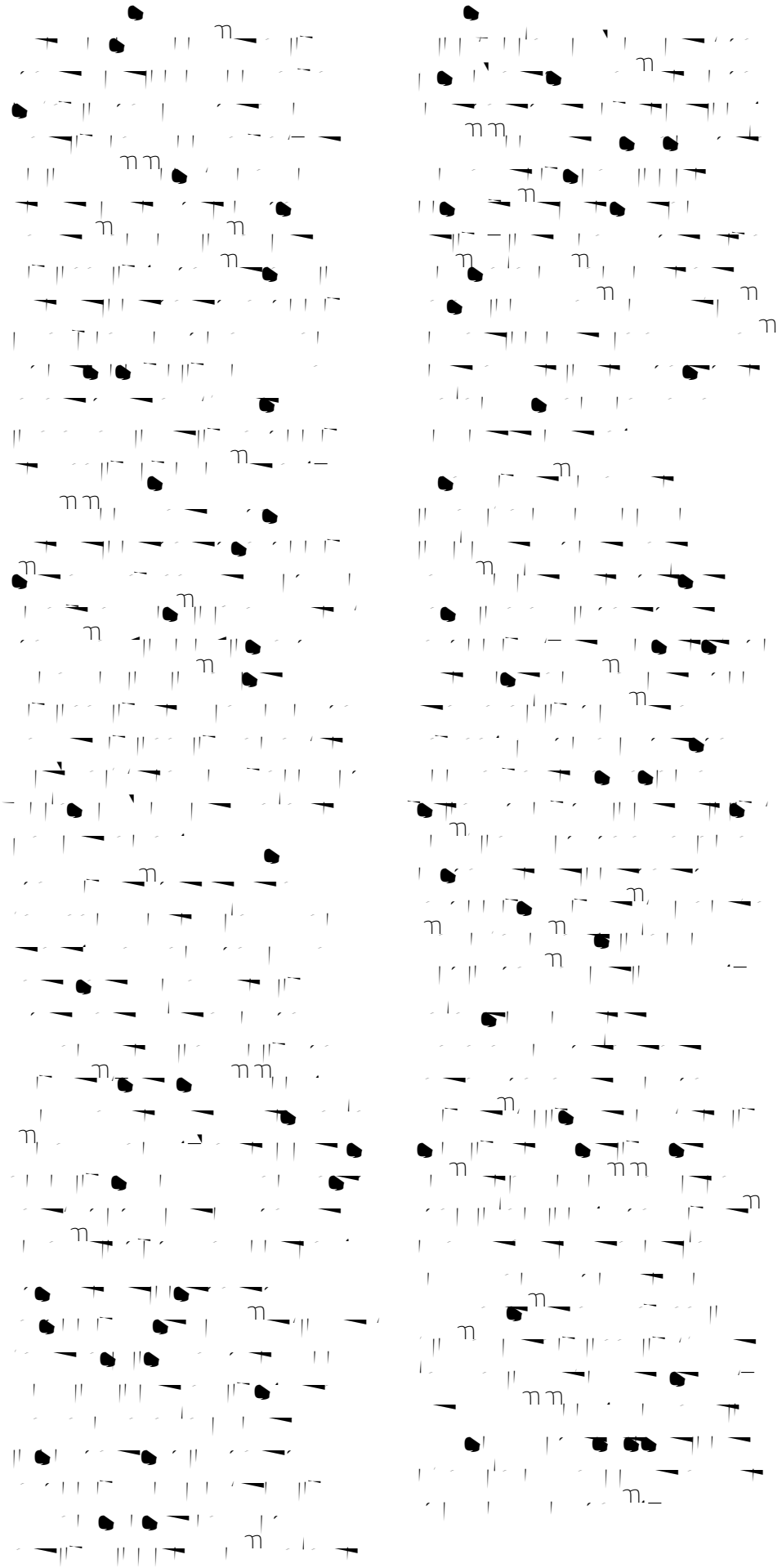
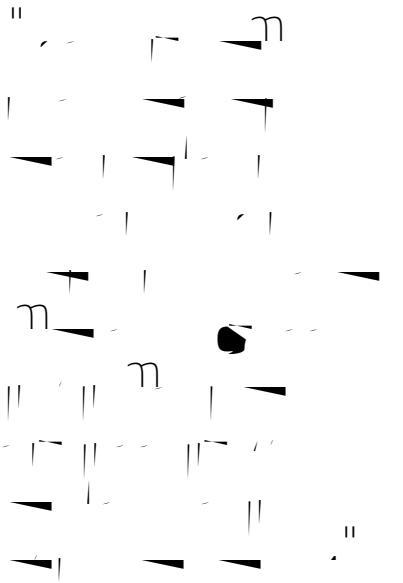




— Christa Pawlowski

The master's track in translational health technology helps students convert research ideas into commercial success.





— Colin Drummond

ALUMNI HIGHLIGHTS

Luis Solorio