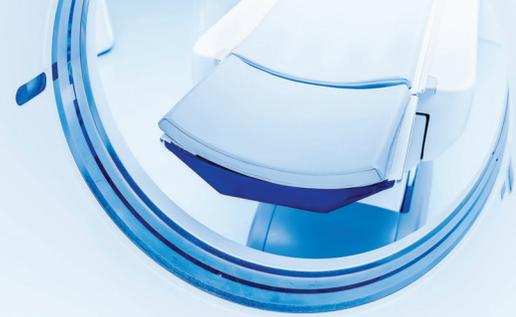




# The **ACADEMY** for Radiology & Biomedical Imaging Research

*Advancing Innovation in Imaging Science*



## Imaging's Critical Role in Health Care

Radiology and imaging provide an irreplaceable role in diagnosing deadly and debilitating diseases, disorders, and injuries; helping physicians provide precise, personalized care; monitoring to ensure efficacy of therapeutic interventions; and creating advancements in patient care across the disease spectrum.

**National Institute of Biomedical Imaging and Bioengineering's (NIBIB)**, mission focuses on improving health by leading the development and accelerating the application of biomedical technologies, and is not limited to a single disease, group of illnesses, or population. Rather, it spans the entire spectrum. Working with doctors and scientists from every field of medicine and scientific discipline, radiologists and imaging researchers are developing innovative approaches and tools to tackle challenging health problems. Newer, more sophisticated, imaging technologies offer insights into the human body never seen before.

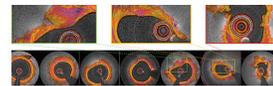
**NIBIB's** modest \$425 million budget (FY22) funds research and training at universities, industries, hospitals, and research institutions, supporting nearly 800 grants and the work of 5,000 researchers.

- Imaging supports a wide range of research fields such as cancer, neuroscience, infectious diseases, and digestive and kidney conditions.
- NIBIB is only 1% of the NIH budget and only 3% of the total NIH budget goes to bioengineering.<sup>1</sup>
- 25 imaging research patents are issued for every \$100 million of NIBIB research funding and more than \$575 million is generated in economic activity and growth.

### Recent NIBIB Discoveries

#### ***First-in-human pilot imaging study shows improved heart attack prediction***

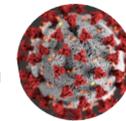
Doctors need better ways to detect and monitor heart disease, the leading cause of death. Researchers supported by NIBIB have developed an improved optical imaging technique that



found differences between potentially life-threatening coronary plaques and those posing less imminent danger for patients with coronary artery disease, giving cardiologists additional data to identify and better treat patients at higher risk of future heart attacks.

#### ***Improving Pandemic Detection Through Innovation-RADx***

With the Rapid Acceleration of Diagnostics (RADx) program, NIBIB is investing in critical technologies that improve our ability to detect and diagnose infectious diseases faster and more accurately.<sup>2</sup> The RADx-Tech program resulted in the first at-home test for Covid-19 approved by the FDA. Moreover, the RADx-UP program is attempting to understand the disparities of infections in under-served populations and the RADx-rad program is investing in non-traditional approaches for rapid detection of Covid-19 through 49 different projects at 43 institutions across the country.<sup>3</sup>



### Academy's FY23 Recommendations

**\$49 BILLION FOR NIH and \$458.5 MILLION TO NIBIB**

*For more information please contact:*

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<sup>1</sup> *Patents as Proxies Revisited: NIH Innovation 2000 to 2013*, [https://www.acadrad.org/wp-content/uploads/2017/04/Patents-as-Proxies-Revisited.March\\_Final\\_.pdf](https://www.acadrad.org/wp-content/uploads/2017/04/Patents-as-Proxies-Revisited.March_Final_.pdf).

<sup>2</sup> *Rapid Acceleration of Diagnostics*, <https://www.nih.gov/research-training/medical-research-initiatives/radx/radx-programs>.

<sup>3</sup> *NIH to support radical approaches to nationwide COVID-19 testing and surveillance*, <https://www.nih.gov/news-events/news-releases/nih-support-radical-approaches-nationwide-covid-19-testing-surveillance>.