

# National Institute of Biomedical Imaging and Bioengineering

CONGRESSIONAL JUSTIFICATION  
FY 2027

---

Department of Health and Human Services  
National Institutes of Health



National Institute of  
Biomedical Imaging  
and Bioengineering

*Technologies to Shape  
the Future of Health*



DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

National Institute of Biomedical Imaging and Bioengineering (NIBIB)

FY 2027 Budget Table of Contents

ICO Overview ..... 3  
Major Changes..... 4  
Budget Mechanism Table..... 6  
Summary of Changes ..... 7  
Budget Graphs ..... 8  
Budget Authority by Activity Table..... 9  
Justification of Budget Request..... 11  
Appropriations History ..... 16  
Budget Authority by Object Class..... 17  
Detail of Full-Time Equivalent Employment (FTE) ..... 18  
Detail of Positions ..... 19

**General Notes**

1. FY 2026 Enacted levels cited in this document include the effects of the FY 2026 HIV/AIDS transfer.
2. Estimates assume reauthorization of the SBIR/STTR program in FY 2026 and FY 2027.
3. Detail in this document may not sum to the subtotals and totals due to rounding.

[THIS PAGE INTENTIONALLY LEFT BLANK]

## **National Institute of Biomedical Imaging and Bioengineering Overview**

The mission of the National Institute of Biomedical Imaging and Bioengineering (NIBIB) is to transform, through technology development, our understanding of disease and its prevention, detection, diagnosis, and treatment. NIBIB is a leader in facilitating technology translation and commercialization, ultimately enhancing technology access to all communities. NIBIB supports a multidisciplinary research community and fosters robust partnerships across NIH, federal agencies, academia, and the private sector. NIBIB develops high-impact and urgently needed biomedical technologies through investments in imaging, engineered biological systems and materials, sensors and point-of-care (POC) devices, therapeutic systems, and modeling, computation, and artificial intelligence (AI).

Driving biomedical technology innovation requires new approaches that embrace partnerships and provide more nimble funding structures. NIBIB leads the Rapid Acceleration of Diagnostics (RADx<sup>®</sup>) Tech program, which generated a robust pipeline to expedite the creation of innovative diagnostic technologies. NIBIB is applying the RADx Tech approach to address a range of health problems, including developing technologies to address the maternal health crisis, to reduce the spread of HIV, and to develop diagnostics for mpox, the H5N1 influenza virus, and hepatitis C.

NIBIB will continue to support the growth of AI in biomedical imaging by facilitating the development and validation of powerful AI algorithms. For example, NIBIB led the development of the Medical Imaging and Data Resource Center (MIDRC), an open discovery data repository. MIDRC maintains a high-quality AI-ready dataset which is specifically reserved for the independent and controlled validation of AI algorithms.

Growing and enhancing the training experiences of the scientific workforce is central to achieving NIBIB's mission. NIBIB has developed a unique program, the Trailblazer Award, to support new and early-stage investigators and to catalyze the development of cutting-edge research approaches that harness their creativity. This program fosters new ideas that may not otherwise be funded due to the lack of preliminary data often required to obtain traditional funding. Compared to other early-stage investigators, Trailblazer awardees are 2 times more likely to receive subsequent NIH funding and nearly 90 percent of Trailblazer projects have resulted in published scientific discoveries.

## Major Changes in the Budget Request

Major changes by budget mechanism and/or budget activity detail are briefly described below. Note that there may be overlaps between budget mechanism and activity detail and these highlights will not sum to the total change for the FY 2027 President's Budget for the National Institute of Biomedical Imaging and Bioengineering (NIBIB). The FY 2027 President's Budget request for NIBIB is \$408.4 million, a decrease of \$32.2 million or 7.3 percent compared with the FY 2026 Enacted level. The FY 2027 President's Budget reflects the policy to limit indirect costs for all research grants to a maximum of 15 percent of the modified total direct cost.

### Research Project Grants (RPGs) (-\$29.3 million; total \$257.0 million):

NIBIB will fund 556 RPG awards in FY 2027, a decrease of 53 awards from the FY 2026 Enacted level based on the overall proposed budget decrease. This includes 397 noncompeting awards, an increase of 15 awards and a decrease of \$53.6 million from the FY 2026 Enacted Level; 141 competing RPGs, a decrease of 65 awards and an increase of \$25.0 million from the FY 2026 Enacted level; and 18 SBIR/STTR awards, a decrease of 3 awards and \$0.6 million from the FY 2026 Enacted level. The FY 2027 request reflects the proposed NIH policy to fully fund all competing RPG outyear commitments as part of the initial grant award.

### Research Centers (-\$2.0 million; total \$38.0 million):

NIBIB will fund 31 Center awards in FY 2027, sustaining the number of awards from the FY 2026 Enacted level. The decrease in funding is due to limiting indirect costs for competing and noncompeting grant awards to no more than 15 percent of direct costs and the overall reduction in funding for NIBIB.

### Other Research (\$0.0 million; total \$9.8 million):

NIBIB will fund 78 Other Research awards in FY 2027, sustaining the number of awards from the FY 2026 Enacted level.

### Research Training Awards (\$0.0 million; total \$11.0 million):

NIBIB will fund 195 Full-Time Training Positions (FTTPs) in FY 2027, unchanged FTTPs from the FY 2026 Enacted level.

### Research and Development (R&D) Contracts (\$1.6 million; total \$27.3 million):

NIBIB will fund 7 R&D Contracts in FY 2027, a decrease of 1 award and an increase of \$1.6 million from the FY 2026 Enacted level.

### Intramural Research (-\$1.2 million; total \$25.5 million):

Intramural Research will decrease by 4.4 percent from the FY 2026 Enacted level, a decrease of \$1.2 million. The decrease in funding is due to the overall reduction in funding for NIBIB. This budget request aligns with the budget proposal to cap Title 42 salaries.

### Research Management & Support (RMS) (-\$1.3 million; total \$39.7 million):

RMS will decrease by 3.3 percent from the FY 2026 Enacted level, a decrease of \$1.3 million. The decrease in funding is due to the overall reduction in funding for NIBIB. This budget

request aligns with the budget proposal to cap Title 42 salaries and supports the management of NIH and NIBIB infrastructure.

**BUDGET MECHANISM TABLE**

**NATIONAL INSTITUTES OF HEALTH  
National Institute of Biomedical Imaging and Bioengineering**

**Budget Mechanism\***  
(Dollars in Thousands)

Mechanism	FY 2025 Final		FY 2026 Enacted		FY 2027 President's Budget		FY 2027 +/- FY 2026	
	Number	Amount	Number	Amount	Number	Amount	Number	Amount
<b>Research Projects:</b>								
Noncompeting	403	\$187,619	382	\$176,350	397	\$122,762	15	-\$53,589
Administrative Supplements	(7)	\$558	(10)	\$700	(7)	\$560	-(3)	-\$140
<b>Competing:</b>								
Renewal	15	\$9,259	16	\$10,126	20	\$12,758	4	\$2,632
New	173	\$84,450	190	\$86,129	121	\$108,520	-69	\$22,391
Supplements	0	\$0	0	\$0	0	\$0	0	\$0
<b>Subtotal, Competing</b>	<b>188</b>	<b>\$93,709</b>	<b>206</b>	<b>\$96,254</b>	<b>141</b>	<b>\$121,278</b>	<b>-65</b>	<b>\$25,024</b>
<b>Subtotal, RPGs</b>	<b>591</b>	<b>\$281,885</b>	<b>588</b>	<b>\$273,305</b>	<b>538</b>	<b>\$244,600</b>	<b>-50</b>	<b>-\$28,705</b>
SBIR/STTR	17	\$12,959	21	\$13,088	18	\$12,450	-3	-\$638
<b>Research Project Grants</b>	<b>608</b>	<b>\$294,845</b>	<b>609</b>	<b>\$286,393</b>	<b>556</b>	<b>\$257,050</b>	<b>-53</b>	<b>-\$29,343</b>
<b>Research Centers</b>								
Specialized/Comprehensive	5	\$6,862	6	\$6,433	6	\$6,112	0	-\$322
Clinical Research	0	\$0	0	\$0	0	\$0	0	\$0
Biotechnology	23	\$27,668	25	\$33,600	25	\$31,920	0	-\$1,680
Comparative Medicine	0	\$0	0	\$0	0	\$0	0	\$0
Research Centers in Minority Institutions	0	\$0	0	\$0	0	\$0	0	\$0
<b>Research Centers</b>	<b>28</b>	<b>\$34,530</b>	<b>31</b>	<b>\$40,033</b>	<b>31</b>	<b>\$38,031</b>	<b>0</b>	<b>-\$2,002</b>
<b>Other Research:</b>								
Research Careers	28	\$4,034	29	\$4,031	29	\$4,031	0	\$0
Cancer Education	0	\$0	0	\$0	0	\$0	0	\$0
Cooperative Clinical Research	0	\$0	0	\$0	0	\$0	0	\$0
Biomedical Research Support	1	\$231	0	\$0	0	\$0	0	\$0
Other Biomedical Research Support	0	\$0	0	\$0	0	\$0	0	\$0
Other	49	\$4,893	49	\$5,744	49	\$5,744	0	\$0
<b>Other Research</b>	<b>78</b>	<b>\$9,158</b>	<b>78</b>	<b>\$9,775</b>	<b>78</b>	<b>\$9,775</b>	<b>0</b>	<b>\$0</b>
<b>Total Research Grants</b>	<b>714</b>	<b>\$338,533</b>	<b>718</b>	<b>\$336,201</b>	<b>665</b>	<b>\$304,856</b>	<b>-53</b>	<b>-\$31,345</b>
<b>Ruth L. Kirschstein Training Awards:</b>	<b>FTTPs</b>		<b>FTTPs</b>		<b>FTTPs</b>		<b>FTTPs</b>	
Individual Awards	6	\$367	15	\$1,012	15	\$1,012	0	\$0
Institutional Awards	165	\$8,758	180	\$10,006	180	\$10,006	0	\$0
<b>Total Research Training</b>	<b>171</b>	<b>\$9,125</b>	<b>195</b>	<b>\$11,018</b>	<b>195</b>	<b>\$11,018</b>	<b>0</b>	<b>\$0</b>
<b>Research &amp; Develop. Contracts</b>	<b>8</b>	<b>\$24,386</b>	<b>8</b>	<b>\$25,662</b>	<b>7</b>	<b>\$27,296</b>	<b>-1</b>	<b>\$1,635</b>
<i>SBIR/STTR (non-add)</i>	<i>(0)</i>	<i>(\$260)</i>	<i>(0)</i>	<i>(\$260)</i>	<i>(0)</i>	<i>(\$260)</i>	<i>(0)</i>	<i>(\$0)</i>
<b>Intramural Research</b>	<b>37</b>	<b>\$26,951</b>	<b>39</b>	<b>\$26,722</b>	<b>39</b>	<b>\$25,539</b>	<b>0</b>	<b>-\$1,183</b>
<b>Res. Management &amp; Support</b>	<b>105</b>	<b>\$41,631</b>	<b>100</b>	<b>\$41,023</b>	<b>100</b>	<b>\$39,682</b>	<b>0</b>	<b>-\$1,341</b>
<i>SBIR Admin. (non-add)</i>		<i>(\$237)</i>		<i>(\$237)</i>		<i>(\$237)</i>		<i>(\$0)</i>
<b>Construction</b>		<b>\$0</b>		<b>\$0</b>		<b>\$0</b>		<b>\$0</b>
<b>Buildings and Facilities</b>		<b>\$0</b>		<b>\$0</b>		<b>\$0</b>		<b>\$0</b>
<b>Total, NIBIB</b>	<b>142</b>	<b>\$440,625</b>	<b>139</b>	<b>\$440,625</b>	<b>139</b>	<b>\$408,391</b>	<b>0</b>	<b>-\$32,234</b>

\* All items in italics and brackets are non-add entries.

SUMMARY OF CHANGES

NATIONAL INSTITUTES OF HEALTH  
National Institute of Biomedical Imaging and Bioengineering

Summary of Changes  
(Dollars in Thousands)

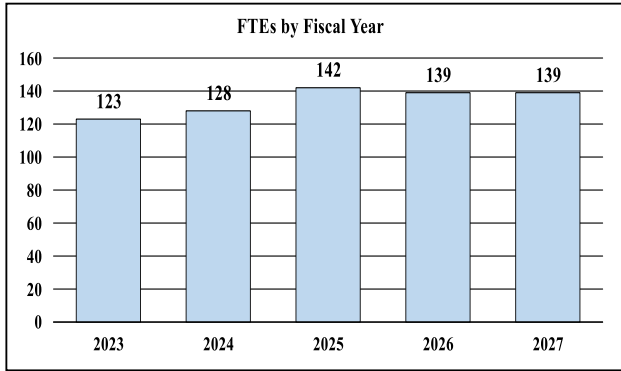
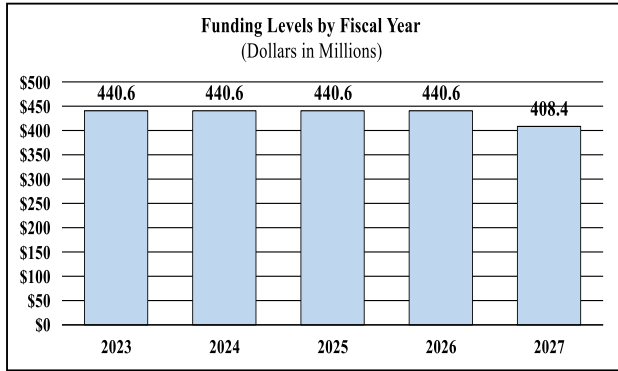
FY 2026 Enacted	\$440,625
FY 2027 President's Budget	\$408,391
Net change	-\$32,234

CHANGES	FY 2026 Enacted		FY 2027 President's Budget		Built-In Change from FY 2026 Enacted	
	FTEs	Budget Authority	FTEs	Budget Authority	FTEs	Budget Authority
<u>A. Built-in:</u>						
1. <u>Intramural Research:</u>						
a. Annualization of FY 2026 pay and benefits increase		\$9,773		\$9,836		\$36
b. FY 2027 pay and benefits increase		\$9,773		\$9,836		-\$1
c. Paid days adjustment		\$9,773		\$9,836		\$0
d. Differences attributable to change in FTE		\$9,773		\$9,836		\$0
e. Payment for centrally furnished services		\$4,153		\$3,364		-\$789
f. Cost of laboratory supplies, materials, other expenses, and non-recurring costs		\$12,796		\$12,339		\$270
Subtotal						-\$485
2. <u>Research Management and Support:</u>						
a. Annualization of FY 2026 pay and benefits increase		\$20,626		\$20,765		\$80
b. FY 2027 pay and benefits increase		\$20,626		\$20,765		-\$3
c. Paid days adjustment		\$20,626		\$20,765		\$0
d. Differences attributable to change in FTE		\$20,626		\$20,765		\$0
e. Payment for centrally furnished services		\$0		\$0		\$0
f. Cost of laboratory supplies, materials, other expenses, and non-recurring costs		\$20,396		\$18,917		\$428
Subtotal						\$506
Subtotal, Built-in						\$21

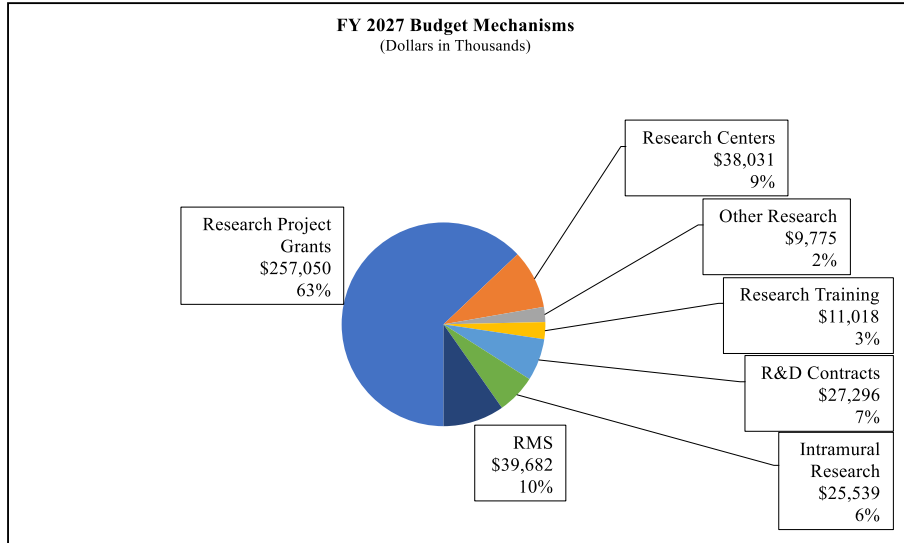
CHANGES	FY 2026 Enacted		FY 2027 President's Budget		Program Change from FY 2026 Enacted	
	No.	Amount	No.	Amount	No.	Amount
<u>B. Program:</u>						
1. <u>Research Project Grants:</u>						
a. Noncompeting	382	\$177,050	397	\$123,322	15	-\$53,729
b. Competing	206	\$96,254	141	\$121,278	-65	\$25,024
c. SBIR/STTR	21	\$13,088	18	\$12,450	-3	-\$638
Subtotal, RPGs	609	\$286,393	556	\$257,050	-53	-\$29,343
2. Research Centers	31	\$40,033	31	\$38,031	0	-\$2,002
3. Other Research	78	\$9,775	78	\$9,775	0	\$0
4. Research Training	195	\$11,018	195	\$11,018	0	\$0
5. Research and development contracts	8	\$25,662	7	\$27,296	-1	\$1,635
Subtotal, Extramural		\$372,880		\$343,170		-\$29,710
6. Intramural Research	39	\$26,722	39	\$25,539	0	-\$698
7. Research Management and Support	100	\$41,023	100	\$39,682	0	-\$1,847
8. Construction		\$0		\$0		\$0
9. Buildings and Facilities		\$0		\$0		\$0
Subtotal, program changes						-\$32,255
Total built-in and program changes	139	\$440,625	139	\$408,391	0	-\$32,234

**BUDGET GRAPHS**

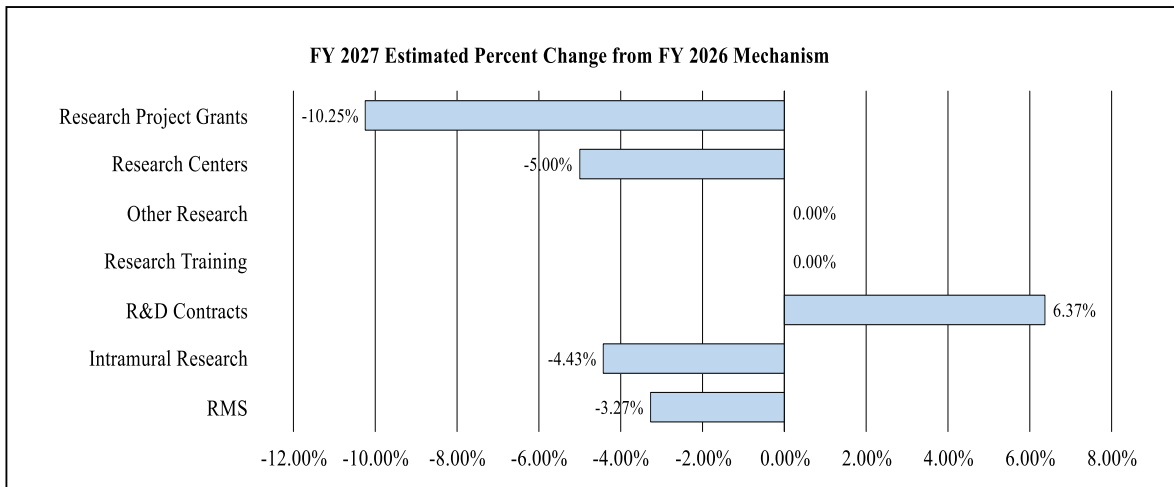
History of Budget Authority and FTEs:



Distribution by Mechanism:



Change by Selected Mechanisms:



**BUDGET AUTHORITY BY ACTIVITY TABLE**

**NATIONAL INSTITUTES OF HEALTH  
National Institute of Biomedical Imaging and Bioengineering**

**Budget Authority by Activity \***  
(Dollars in Thousands)

	FY 2025 Final		FY 2026 Enacted		FY 2027 President's Budget		FY 2027 +/- FY 2026 Enacted	
	FTE	Amount	FTE	Amount	FTE	Amount	FTE	Amount
<b><u>Extramural Research</u></b>								
<u>Detail</u>								
Discovery Science and Technology		\$118,382		**		\$109,195		**
Applied Science and Technology		\$176,098		**		\$162,432		**
Interdisciplinary Training		\$24,288		**		\$22,403		**
Health Informatics Technology		\$39,510		**		\$36,444		**
Office of Program Evaluation and Strategic Partnerships		\$13,766		**		\$12,697		**
<b>Subtotal, Extramural</b>		<b>\$372,043</b>		<b>\$372,880</b>		<b>\$343,170</b>		<b>-\$29,710</b>
<b>Intramural Research</b>	<b>37</b>	<b>\$26,951</b>	<b>39</b>	<b>\$26,722</b>	<b>39</b>	<b>\$25,539</b>	<b>0</b>	<b>-\$1,183</b>
<b>Research Management &amp; Support</b>	<b>105</b>	<b>\$41,631</b>	<b>100</b>	<b>\$41,023</b>	<b>100</b>	<b>\$39,682</b>	<b>0</b>	<b>-\$1,341</b>
<b>TOTAL</b>	<b>142</b>	<b>\$440,625</b>	<b>139</b>	<b>\$440,625</b>	<b>139</b>	<b>\$408,391</b>	<b>0</b>	<b>-\$32,234</b>

\* Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

\*\* For FY 2026 Enacted, funding levels are displayed for statutory and report-directed PPAs. Amounts with an asterisk represent other PPAs as levels have not yet been determined.

[THIS PAGE INTENTIONALLY LEFT BLANK]

**National Institute of Biomedical Imaging and Bioengineering**

Budget Authority (BA):

	FY 2025 Final	FY 2026 Enacted	FY 2027 President's Budget	FY 2027 +/- FY 2026
BA	\$440,625,000	\$440,625,000	\$408,391,000	-\$32,234,000
FTE	142	139	139	0

Program funds are allocated as follows: Competitive Grants/Cooperative Agreements; Contracts; Direct Federal/Intramural and Other.

Overall Budget Policy: The FY 2027 President’s Budget request for the National Institute of Biomedical Imaging and Bioengineering (NIBIB) is \$408.4 million, a decrease of \$32.2 million or 7.3 percent compared with the FY 2026 Enacted level.

**Program Descriptions and Accomplishments**

NIBIB supports biomedical imaging and bioengineering technologies through key investments in research and training across its extramural and intramural research programs. Technology enables medical discoveries that benefit public health and the biomedical research enterprise and provides innovative solutions to pressing health care challenges. NIBIB investments span from basic research to commercialization of new technologies to improve health.

**Division of Applied Science and Technology (DAST)**

DAST supports researchers and clinicians who are working to develop new tools and methods to better diagnose and treat disease as well as gain deeper insight into biological and disease processes. These efforts aim to improve human health by producing more innovative, cost-effective and accessible technologies. DAST highlights of research in this area include:

**Developing flexible imaging coils to improve image quality for pediatric patients:** In magnetic resonance imaging (MRI), most existing hardware has been designed for adults. It is rigid, heavy, restrictive, and uncomfortable for many patients, and particularly for pediatric patients. Often, anesthesia is needed for pediatric patients currently in need of MRI imaging. In this study, researchers developed more flexible imaging coils that are optimized for smaller structures and can wrap around the abdomen of pediatric patients, similar to a blanket. These coils produced the same or higher quality images in less time.<sup>1</sup> This technological advancement could improve MRI imaging for pediatric patients, reduce the need for sedation and long hospital stays, and improve patient care.

<sup>1</sup> [pubmed.ncbi.nlm.nih.gov/39902561/](https://pubmed.ncbi.nlm.nih.gov/39902561/)

**Guiding needles in lumbar puncture using an augmented reality system:** Lumbar punctures (or spinal taps), which can be used to diagnose disease or deliver medicine, frequently require physicians to use their hands to feel a gap between two lumbar bones and then insert a needle. Clinicians may need to make several attempts, which can be painful for the patient and can lead to sample contamination. With the goal of improving needle placement, two forms of augmented reality (a tablet that uses its camera for tracking or a head-mounted display worn by a user that uses optics for tracking) were evaluated. The system integrated three components: a cell phone-sized ultrasound imager for visualization of the spine, algorithms that help to estimate the location of the lumbar bones, and an augmented reality display that superimposes the target location onto the spine to guide needle insertion. Using these tools, the needle could accurately hit the intended target in simulated experiments.<sup>2</sup> Future work will focus on further development of this system for clinical evaluation and commercialization.

**Budget Policy:** The FY 2027 President’s Budget request for the DAST is \$162.4 million.

### **Division of Discovery Science and Technology (DDST)**

DDST builds broadly applicable technologies like prosthetics or wearable devices that interface directly with human physiology and tune biological processes to prevent, diagnose, and treat disease. The division also works to support the translation of these technologies from the lab to the clinic, emphasizing the development of scalable, impactful technologies. Key investment areas for NIBIB include bionics, synthetic biology, robotics, biomaterials, and new approach methodologies (NAMs). Highlights of research supported in this area include:

**Monitoring chronic wounds with a “smart bandage”:** Some individuals do not heal effectively, which can lead to chronic wounds. This can be due to conditions like diabetes, poor blood circulation, or poor healing following surgery. Chronic wounds can cause pain, loss of function, and even amputation or death. In a preliminary study, researchers developed a smart bandage, known as iCares, that can provide real-time data about chronic wounds and may help accelerate the healing process. The smart bandage is a thin, flexible, low-cost printed circuit with microfluidic components which control the flow of liquids, remove excess moisture, and continually test wound fluids for signs of infection or inflammation.<sup>3</sup> The team created a machine-learning algorithm that can help classify wounds and predict healing time at a comparable accuracy to a clinician. The smart bandage was able to detect molecules signalling inflammation or infection one to three days before patients experienced symptoms, enabling faster treatment.

**Sensing strain, pressure and temperature with a skin-like wearable device:** Traditional biosensors typically utilize materials that struggle to match the flexibility and elasticity of the skin that they attach to, often falling off during activity and skewing the accuracy of collected data. To build a more flexible sensor, researchers developed a method to crosslink biomaterials with nanoparticles to create an ink that can be 3D-printed as an electronic skin (E-skin). This new type of sensor can be printed to specific shapes and sizes that could easily adhere to skin. In this study, the E-skin could pick up changes in temperature and strain through tiny materials that

---

<sup>2</sup> [pubmed.ncbi.nlm.nih.gov/38779126/](https://pubmed.ncbi.nlm.nih.gov/38779126/)

<sup>3</sup> [science.org/doi/10.1126/scitranslmed.adt0882](https://science.org/doi/10.1126/scitranslmed.adt0882)

conduct electricity embedded in the sensor.<sup>4</sup> When attached to the throat, the sensor could detect swallowing and the movement of vocal cords during speech, which could help physicians to detect and monitor vocal cord and swallowing disorders. The sensor was also placed on a person's hand to measure body temperature, showing the potential for continuous monitoring. Even subtle changes in temperature are known to be a predictor of illness, an indicator of ovulation for fertility tracking, or associated with overexertion during exercise. This technology could revolutionize the study of human motion and allow for continuous monitoring of patients even outside the clinic.

**Budget Policy:** The FY 2027 President's Budget request for the DDST is \$109.2 million.

### **Division of Health Informatics Technologies (DHIT)**

DHIT investments help drive the development of new diagnostics, telehealth programs, and sensor technology. These advancements are generating a wealth of data which needs to be seamlessly integrated into health care management to improve human health.

DHIT programs support the development of AI tools to support clinical decision-making, analysis of medical images to help improve their quality, and digital health tools. For example, NIBIB is funding research which uses AI to help identify cardiac factors that may predict mortality in using common chest computed tomography (CT) scans and help identify heart problems at an earlier stage.<sup>5</sup> Researchers used two previously validated AI algorithms to analyze features associated with heart disease: the amount of coronary artery calcium and the shape and size of the heart chambers. Scans from 24,354 patients who had CT performed as part of a National Lung Screening Trial were evaluated. Together, these algorithms were able to identify features predictive of death even though the original CT scans were not designed for that purpose. The researchers found that combining multiple features together with data like age and medical history was the best predictor of death. Additionally, NIBIB is leading the new NIH Common Fund's PRIMED-AI program, which will combine clinical imaging with other types of health data to develop innovative AI-powered clinical decision support tools to enable new personalized medicine strategies for patients with wide-ranging health conditions.

**Budget Policy:** The FY 2027 President's Budget request for the DHIT is \$36.4 million.

### **Division of Interdisciplinary Training (DIDT)**

NIBIB is committed to developing an expert workforce that can address bioengineering and imaging challenges of the future. DIDT supports research training from K-12 education through early-stage investigator career stages. NIBIB supports researchers with broad technical backgrounds ranging from physical sciences to engineering to biology and medicine. DIDT's programs aim to address the growing demand in medicine for technology innovators at all career stages.

One example of DIDT's programs is the Design by Biomedical Undergraduate Teams (DEBUT) Challenge, which recognizes undergraduate student teams for their technology solutions to

---

<sup>4</sup> [advanced.onlinelibrary.wiley.com/doi/10.1002/adfm.202313575](https://advanced.onlinelibrary.wiley.com/doi/10.1002/adfm.202313575)

<sup>5</sup> [pubmed.ncbi.nlm.nih.gov/38553462/](https://pubmed.ncbi.nlm.nih.gov/38553462/)

unmet needs in health care. 2025 DEBUT Challenge submissions had a record number of participants with 123 teams, consisting of 534 students from 67 universities across 24 states, resulting in 11 winning projects and 5 honorable mentions with prizes totaling \$190,000. The first prize went to an automated gauge for detection of hemorrhagic shock in children.<sup>6</sup> Following trauma and blood loss, hemorrhagic shock is more difficult to diagnose in children because of their greater ability to compensate for blood loss before shock is detectable using blood pressure monitoring and measurement of other vital signs. The device was able to improve both sensitivity and specificity of hemorrhagic shock detection in children.

**Budget Policy:** The FY 2027 President's Budget request for the DIDT is \$22.4 million.

### **Office of Program Evaluation and Strategic Partnerships (OPESP)**

OPESP supports NIBIB's translational research activities, including program evaluation efforts that help guide scientific program management and strategic planning. In addition, OPESP supports programs, such as:

**Addressing urgent health care problems using RADx Tech:** RADx Tech infrastructure was established in 2020 to develop tests for COVID-19 and resulted in the wide availability of at-home and point-of-care (POC) diagnostics in the United States. Since then, RADx Tech programs have successfully addressed a range of health care problems beyond COVID-19, including mpox, hepatitis C, maternal and fetal health, and disorders of the nervous system. The ongoing activity of these programs provides an infrastructure which enables a rapid response to urgent demands and future pandemic threats.

**Supporting commercializing innovation:** The Concept to Clinic: Commercializing Innovation (C3i) program is a set of entrepreneurial training and mentorship courses that were developed to help medical device innovators translate their technologies from the lab to the clinic. Since launching in 2014, more than 700 individuals and 280 teams have participated in this unique program that now involves 10 NIH Institutes, Centers, and Offices. The NIBIB C3i program provides researchers, engineers, and entrepreneurs with essential training, connecting teams to technical, regulatory, and industry experts to support the successful translation of biomedical technologies into commercially viable products. The program has supported products currently on the market, such as systems for reducing radiation exposure during CT scans, a point of care test for diagnosing anemia, and a digital app for assessing and minimizing risk factors for Alzheimer's disease.

**Budget Policy:** The FY 2027 President's Budget request for the OPESP is \$12.7 million.

### **Intramural Research Program (IRP)**

NIBIB's IRP supports a range of basic, translational, and clinical research that plays a critical role in advancing the bioimaging and bioengineering fields. Its innovation and implementation of effective training programs also allows the IRP to contribute to the development of a highly trained and productive U.S. biomedical technology workforce.

---

<sup>6</sup> [nibib.nih.gov/programs/division-interdisciplinary-training-didt/debut/2025-winners](https://nibib.nih.gov/programs/division-interdisciplinary-training-didt/debut/2025-winners)

IRP also facilitates the development of research resources for researchers across NIH. For example, NIH recently opened a new fabrication facility, the Biomedical Engineering and Technology Acceleration (BETA) Center Makerspace, on the Bethesda campus.<sup>7</sup> It offers the NIH research community access to various fabrication tools and equipment to help meet their needs. Through project consultation, workshops, and hands-on training, the Makerspace aims to help users build their confidence in operating available fabrication equipment to innovate and advance their research. Using these resources, NIH scientists have already used the facility to fabricate a jig to precisely position and stabilize mouse brains embedded in agarose gel and an acrylic positioning device designed to accurately center biological samples in Petri dishes for imaging.

**Budget Policy:** The FY 2027 President's Budget request for the IRP is \$25.5 million, a decrease of \$1.2 million or 4.4 percent compared with the FY 2026 Enacted level.

### **Research Management and Support (RMS)**

Activities in Research Management and Support contribute to achieving NIBIB's mission through efficient management and oversight of administrative operations, budgeting, strategic planning, and communicating about NIBIB programs, activities, and outcomes. Administrative support helps facilitate NIBIB partnerships and collaborations. Through effective management and program oversight, NIBIB will continue to serve as a central hub for biomedical technology research within NIH. The powerful and enabling technologies developed by NIBIB-supported researchers are essential to achieving breakthrough advances for improving human health for all.

**Budget Policy:** The FY 2027 President's Budget request for RMS is \$39.7 million, a decrease of \$1.3 million or 3.3 percent compared with the FY 2026 Enacted level.

---

<sup>7</sup> [nibib.nih.gov/labs-at-nibib/center-for-biomedical-engineering-technology-acceleration-beta/makerspace](https://nibib.nih.gov/labs-at-nibib/center-for-biomedical-engineering-technology-acceleration-beta/makerspace)

**NATIONAL INSTITUTES OF HEALTH  
National Institute of Biomedical Imaging and Bioengineering**

**Appropriations History**

<b>Fiscal Year</b>	<b>Budget Estimate to Congress<sup>1</sup></b>	<b>House Allowance<sup>2</sup></b>	<b>Senate Allowance</b>	<b>Appropriation</b>
2018	\$282,614,000	\$362,506,000	\$371,151,000	\$377,871,000
Rescission				\$0
2019	\$346,550,000	\$382,384,000	\$389,672,000	\$389,464,000
Rescission				\$0
2020	\$335,986,000	\$408,498,000	\$411,496,000	\$403,638,000
Rescission				\$0
Supplemental				\$60,000,000
2021	\$368,111,000	\$407,109,000	\$417,815,000	\$410,728,000
Rescission				\$0
2022	\$422,039,000	\$431,081,000	\$421,617,000	\$424,590,000
Rescission				\$0
2023	\$419,493,000	\$437,991,000	\$437,752,000	\$440,627,000
Rescission				\$0
2024	\$440,625,000	\$440,627,000	\$440,627,000	\$440,627,000
Rescission				\$0
2025	\$441,944,000		\$440,627,000	\$440,627,000
Rescission				\$0
2026		\$440,627,000	\$440,627,000	\$440,627,000
Rescission				\$0
2027	\$408,391,000			

<sup>1</sup> The FY 2026 President’s Budget proposed consolidating the 27 NIH Institutes and Centers into an 8-Institute structure, while maintaining the Office of the Director and the Building and Facilities account.

<sup>2</sup> The FY 2025 House bill proposed consolidating the 27 NIH Institutes and Centers into a 12-Institute structure, while maintaining the Office of the Director and the Building and Facilities account.

**BUDGET AUTHORITY BY OBJECT CLASS**

**NATIONAL INSTITUTES OF HEALTH  
National Institute of Biomedical Imaging and Bioengineering**

**Budget Authority by Object Class <sup>1</sup>**  
(Dollars in Thousands)

	<b>FY 2026 Enacted</b>	<b>FY 2027 President's Budget</b>	<b>FY 2027 +/- FY 2026</b>
<b>Total compensable workyears:</b>			
Full-time equivalent	139	139	0
Full-time equivalent of overtime and holiday hours	0	0	0
Average ES salary	\$272	\$272	\$0
Average GM/GS grade	13.0	13.0	0.0
Average GM/GS salary	\$157	\$157	\$0
Average salary, Commissioned Corps (42 U.S.C. 207)	\$0	\$0	\$0
Average salary of ungraded positions	\$174	\$174	\$0
<b>OBJECT CLASSES</b>	<b>FY 2026 Enacted</b>	<b>FY 2027 President's Budget</b>	<b>FY 2027 +/- FY 2026</b>
Personnel Compensation			
11.1 Full-Time Permanent	\$14,612	\$14,739	\$127
11.3 Other Than Full-Time Permanent	\$4,567	\$4,578	\$11
11.5 Other Personnel Compensation	\$423	\$424	\$1
11.7 Military Personnel	\$0	\$0	\$0
11.8 Special Personnel Services Payments	\$2,471	\$2,477	\$6
<b>11.9 Subtotal Personnel Compensation</b>	<b>\$22,072</b>	<b>\$22,218</b>	<b>\$146</b>
12.1 Civilian Personnel Benefits	\$8,327	\$8,383	\$56
12.2 Military Personnel Benefits	\$0	\$0	\$0
13.0 Benefits to Former Personnel	\$0	\$0	\$0
<b>Subtotal Pay Costs</b>	<b>\$30,399</b>	<b>\$30,601</b>	<b>\$202</b>
21.0 Travel & Transportation of Persons	\$319	\$310	-\$10
22.0 Transportation of Things	\$117	\$113	-\$4
23.1 Rental Payments to GSA	\$0	\$0	\$0
23.2 Rental Payments to Others	\$10	\$9	-\$1
23.3 Communications, Utilities & Misc. Charges	\$10	\$10	\$0
24.0 Printing & Reproduction	\$13	\$13	\$0
25.1 Consulting Services	\$9,375	\$8,134	-\$1,241
25.2 Other Services	\$8,179	\$10,043	\$1,863
25.3 Purchase of Goods and Services from Government Accounts	\$29,666	\$28,496	-\$1,171
25.4 Operation & Maintenance of Facilities	\$198	\$192	-\$6
25.5 R&D Contracts	\$5,911	\$5,861	-\$50
25.6 Medical Care	\$57	\$56	-\$1
25.7 Operation & Maintenance of Equipment	\$6,099	\$5,644	-\$455
25.8 Subsistence & Support of Persons	\$0	\$0	\$0
<b>25.0 Subtotal Other Contractual Services</b>	<b>\$59,485</b>	<b>\$58,426</b>	<b>-\$1,059</b>
26.0 Supplies & Materials	\$1,435	\$1,392	-\$43
31.0 Equipment	\$1,586	\$1,612	\$25
32.0 Land and Structures	\$25	\$25	\$1
33.0 Investments & Loans	\$0	\$0	\$0
41.0 Grants, Subsidies & Contributions	\$347,219	\$315,874	-\$31,345
42.0 Insurance Claims & Indemnities	\$0	\$0	\$0
43.0 Interest & Dividends	\$7	\$7	\$0
44.0 Refunds	\$0	\$0	\$0
94.0 Financial Transfers	\$0	\$0	\$0
<b>Subtotal Non-Pay Costs</b>	<b>\$410,226</b>	<b>\$377,790</b>	<b>-\$32,436</b>
<b>Total Budget Authority by Object Class</b>	<b>\$440,625</b>	<b>\$408,391</b>	<b>-\$32,234</b>

<sup>1</sup> Includes FTEs whose payroll obligations are supported by the NIH Common Fund.

**DETAIL OF FULL-TIME EQUIVALENT EMPLOYMENT (FTE)**

**NATIONAL INSTITUTES OF HEALTH  
National Institute of Biomedical Imaging and Bioengineering**

**Detail of Full-Time Equivalent Employment (FTE)**

Office	FY 2025 Final			FY 2026 Enacted			FY 2027 President's		
	Civilian	Military	Total	Civilian	Military	Total	Civilian	Military	Total
Office of the Director									
Direct:	2	-	2	3	-	3	3	-	3
Total:	2	-	2	3	-	3	3	-	3
Extramural Science Program									
Direct:	29	-	29	33	-	33	33	-	33
Reimbursable:	8	-	8	8	-	8	8	-	8
Total:	37	-	37	41	-	41	41	-	41
Office of Reseach Administration									
Direct:	24	-	24	18	-	18	18	-	18
Total:	24	-	24	18	-	18	18	-	18
Office of Administrative Management									
Direct:	38	-	38	29	-	29	29	-	29
Total:	38	-	38	29	-	29	29	-	29
Intramural Science Program									
Direct:	29	-	29	36	-	36	36	-	36
Reimbursable:	12	-	12	12	-	12	12	-	12
Total:	41	-	41	48	-	48	48	-	48
<b>Total</b>	<b>142</b>	<b>-</b>	<b>142</b>	<b>139</b>	<b>-</b>	<b>139</b>	<b>139</b>	<b>-</b>	<b>139</b>
Includes FTEs whose payroll obligations are supported by the NIH Common Fund.									
FTEs supported by funds from Cooperative Research and Development Agreements.	0	0	0	0	0	0	0	0	0

DETAIL OF POSITIONS

NATIONAL INSTITUTES OF HEALTH  
National Institute of Biomedical Imaging and Bioengineering

Detail of Positions <sup>1</sup>

GRADE	FY 2025 Final	FY 2026 Enacted	FY 2027 President's Budget
Total, ES Positions	1	1	1
Total, ES Salary	\$272,453	\$272,453	\$272,453
General Schedule			
GM/GS-15	22	25	25
GM/GS-14	36	34	34
GM/GS-13	21	29	29
GS-12	13	10	10
GS-11	7	8	8
GS-10	1	1	1
GS-9	5	4	4
GS-8	0	0	0
GS-7	0	0	0
GS-6	0	0	0
GS-5	0	0	0
GS-4	0	0	0
GS-3	0	0	0
GS-2	0	0	0
GS-1	0	0	0
Subtotal	105	111	111
Commissioned Corps (42 U.S.C. 207)			
Assistant Surgeon General	0	0	0
Director Grade	0	0	0
Senior Grade	0	0	0
Full Grade	0	0	0
Senior Assistant Grade	0	0	0
Assistant Grade	0	0	0
Junior Assistant	0	0	0
Subtotal	0	0	0
Ungraded	34	27	27
Total permanent positions	105	111	111
Total positions, end of year	140	139	139
Total full-time equivalent (FTE) employment, end of year	142	139	139
Average ES salary	\$272,453	\$272,453	\$272,453
Average GM/GS grade	13.0	13.0	13.0
Average GM/GS salary	\$154,145	\$156,792	\$156,792

<sup>1</sup> Includes FTEs whose payroll obligations are supported by the NIH Common Fund.