Radiology research continues to stand out at places like the National Institutes of Health, driving innovations in patient care and illuminating novel approaches to interdisciplinary research.
The past two years of federal science policy have been tumultuous. Austerity measures at the federal level have led to unprecedented cuts to the National Institutes of Health (NIH). With political gridlock continuing for the foreseeable future, it appears that these challenges are here to stay, and more may be on the way.

Despite these headwinds, the demand for imaging research has grown substantially at NIH (p. 15-16). Projects involving imaging components increased by 8% in nominal dollars in Fiscal Year (FY) 2012 despite the overall budget cuts to NIH. However, grants to Radiology Departments were down 5.64% compared to FY 2011. While we are excited to see researchers in all disciplines tapping the power of imaging, it is imperative that NIH continues to invest in innovative imaging science. The proven performance of multidisciplinary imaging science in expanding the technology envelope, rapidly translating these advances into high-value solutions for patients, and contributing to the US lead in high-technology commercial medical products makes radiology research a particularly strong candidate for targeted federal investments in the current fiscal environment.

These strengths of imaging have framed the Academy’s advocacy efforts, providing the heart of the Academy’s 2013 congressional testimony in support of the National Institute for Biomedical Imaging and Bioengineering (NIBIB). Despite the impact and breadth of imaging research, the budget for NIBIB remains at just 1.1% of the NIH total budget. The Academy has called on Congress and Administration officials to begin a five-year reallocation of the NIH portfolio to bring this funding to 3% of the total NIH budget - from $330M to $1B.

Data show that this investment in imaging and technology research is one of the most productive uses of scarce taxpayer resources - both scientifically and economically. In addition to helping meet the interdisciplinary and clinical demand for advanced technology-based tools, researchers funded by NIBIB generate patentable inventions at the highest rates reported across the NIH. This has important policy implications, as higher patent creation is positively correlated with greater regional employment levels across the US. Increasing the allocation to NIBIB would be in full alignment with the goal of the current administration to accelerate areas of research that answer important scientific questions and also maximize economic impact.

The Academy will be publishing its patent analysis later this year, and the timing will be optimal for effecting budgetary changes in 2014. This will provide a strong complement to the many clinical success stories that are a result of imaging research. For this reason, the powerful grassroots advocacy that our community has wielded over this past year will become even more important, demonstrating to policymakers our conviction that our science can do wonders for human health.

This important advocacy work would not be possible without your support. Thank you, and I look forward to our continued partnership.
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Together, these stakeholders help ensure that the federal government continues to invest in research at the NIBIB and the other agencies that support imaging research.

Who We Are

The Academy of Radiology Research is an alliance of 28 professional imaging societies. Established in 1995, the Academy was the catalyst for the creation of the National Institute of Biomedical Imaging and Bioengineering (NIBIB) at the National Institutes of Health (NIH). The Academy also includes 35 academic research departments, which together with the professional societies, represent the scientific community advocating for medical imaging research.

The Academy serves as the umbrella organization to the Coalition for Imaging and Bioengineering Research (CIBR). CIBR was established in order to foster collaboration among other important stakeholders in the imaging research community: imaging equipment manufacturers, and patient advocates.

By presenting a unified voice in support of imaging research, the Academy and CIBR represent the three-legged stool of medical research: academia, industry and patient advocates.

Together, these stakeholders help ensure that the federal government continues to invest in research at the NIBIB and the other agencies that support imaging research.

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Thank you to our member societies:
Broad-based: ACR, ABR, RSNA, SCARD/AUR/ARPR
Specialties: AAWR, AAPM, ACNM, AOCR, ASNR, ISMRM, SIM, SPR, SCBT-MR, SIR, SNMMI, SSR, STR, WMIS
Supporting Members: AIUM, ASER, ASRT, ARRT, AEIRS, SAR...
The Academy’s ACADEMIC COUNCIL (ARRAC) continues to grow, totaling **35** of the top academic Radiology Departments.

ARRAC members sent over 6,000 letters to Capitol Hill in 2013 in support of radiology research.
The Power of Pain Foundation at the CIBR 2013 Medical Technology Showcase, with academic researcher Connie Lehman, MD (University of Washington) and industry partner Medicalis.

Time Medical, UCSD Chair and CIBR Chairman, Bill Bradley, MD PhD, and advocates from Tuberous Sclerosis Alliance.

“CIBR is incredibly valuable to the patient advocate community. The Coalition is truly representative of all imaging stakeholders; incredibly attuned to the interests and needs of patient groups. That is a rare commodity. I have been honored to be engaged with CIBR and to see this Coalition continue to grow.”

Martha Nolan, Vice President Public Policy, Society for Women’s Health Research

CIBR Steering Committee

William G. Bradley, Jr., MD, PhD
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James Jorkasky
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Lung Cancer Alliance
Philips Healthcare
FUJIFILM Medical Systems, USA
GE Healthcare
TIME MEDICAL Systems, Inc
Toshiba Medical Research Institute Medicalis
Agfa Healthcare
Nuance Healthcare
Siemens Healthcare, USA.

Total Patient Advocacy Organizations

2011: 66 Patient Groups
2012: 73 Patient Groups
2013:

ZERO - The End of Prostate Cancer, displays at the 2013 CIBR Medical Technology Event on Capitol Hill.
The legislative process has never been as broken as it is right now, and science is paying the price.

The House of Representatives recently passed a budget framework that would result in an 18% cut for the National Institutes of Health (NIH). This is an unprecedented reduction to our Nation’s medical research and development budget. The Senate, traditionally the stronger champion for NIH, provided for a modest 1% increase in their budget bill. However, the gaping difference between the House and Senate spending levels means that it will be nearly impossible to marry the two bills.

The result? NIH will again be subject to a Continuing Resolution (CR), funding the agency at the previous year’s level and resulting in zero growth, which has been the status quo at NIH for the past decade. However, NIH will also be subject to Year Two of sequestration, resulting in a net cut of approximately 7% to the bottom-line budget. Existing grantees can expect to see their out-year budgets reduced, while new applicants will continue to see single-digit success rates. All of this makes doing science in the U.S. an increasingly unattractive prospect.

While the view from 35,000 feet looks grim, the Academy is using this legislative gridlock to explore and develop novel, data-driven arguments that support imaging research. Academy leaders have developed a number of legislative options for increasing opportunities for imaging scientists, including the Academy’s long-range plan of establishing a Medical Imaging Research Initiative that would coordinate and accelerate the federal government’s investments in imaging research.

The Academy’s Academic Council is also exploring existing policies at the NIH, identifying areas in which radiology research may be better supported. By providing input to NIH that reflects the radiology environment, such as adjustments to training awards that would help strengthen the pipeline for imaging researchers, the radiology research community can move the field forward even in times of budgetary constraints.

We also continue to be extremely grateful for the patient advocacy leaders of CIBR, who generously give their time and energy to advocate on behalf of the powerful imaging tools that their constituents rely on for diagnosis and treatment. One of CIBR’s Steering Committee members, Lung Cancer Alliance, recently celebrated the positive recommendation from the U.S. Preventative Services Task Force in support of targeted, low-dose CT screening for patients at high-risk for lung cancer. This marks an important step in turning a landmark clinical trial, the National Lung Screening Trial, into life-saving patient care. Researchers at the ACR Imaging Network (ACRIN) and the NCI Cancer Imaging Program (CIP) should take a bow.

Finally, the Academy’s inaugural scientific symposium, entitled “Uncovering Connections: Imaging Advances in Autism, Traumatic Brain Injury and Alzheimer’s Disease” will be held this October. Although the day promises a rigorous scientific discussion, there is also a dual advocacy aim of ensuring that NIH leaders recognize radiology scientists as domain experts in this field. Hopefully, these types of events can lead to a higher profile for radiology and imaging researchers at NIH, increased resources for imaging science, and key advisory roles for imaging scientists.

None of these vital initiatives for the imaging research community would be possible without the support of the 29 imaging societies, 35 academic departments, 80 patient groups and nine industry partners, who have supported the Academy and CIBR through countless hours of volunteer service over the past 15 years.
The Academy of Radiology Research is pleased to announce that 43 researchers have been selected as recipients of the Academy’s 2013 Distinguished Investigator Award. This prestigious honor recognizes individuals for their accomplishments in the field of medical imaging. Over the past few decades, the radiology research community has been responsible for many important advances that have had a profound impact on healthcare. Researchers who have been named a Distinguished Investigator have made significant contributions to the field and rank within the top 10 percent of all Radiology department faculty.

Distinguished Investigators

David C. Alsop, PhD
A. James Barkovich, MD
James P. Basilion, PhD
James Brewer, MD, PhD
Truman R. Brown, PhD
Richard B. Buxton, PhD
Christopher M. Collins, PhD
Agata A. Exner, PhD
Zahi A. Fayad, PhD
Baowei Fei, PhD, EngD
James C. Gee, PhD
Oded Gonen, PhD
John C. Gore, PhD
Lubomir M. Hadjiiski, PhD
Mingxiong Huang, PhD
Nola Hylton, PhD
Marie Foley Kijewski, SciD
Ron Kikinis, MD
Robert Allen Koeppe, PhD
John Kurhanewicz, PhD
Thomas Lang, PhD
Roland R. Lee, MD
Beth Israel Deaconess Medical Center
University of California, San Francisco
Case Western Reserve University
University of California, San Diego
Medical University of South Carolina
University of California, San Diego
NYU Langone Medical Center
University of Pennsylvania
Icahn School of Medicine at Mt. Sinai
Emory University
University of California, San Diego
Vanderbilt University
University of Michigan
Icahn School of Medicine at Mt. Sinai
Emory University
University of California, San Francisco
University of Michigan
University of California, San Francisco
Brigham and Women’s Hospital
University of California, San Diego
University of Michigan
University of California, San Francisco
Brigham and Women’s Hospital
University of California, San Francisco
University of Michigan
University of California, San Diego
NYU Langone Medical Center
Brigham and Women’s Hospital
NYU Langone Medical Center
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Brigham and Women’s Hospital
NYU Langone Medical Center
Brigham and Women’s Hospital
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Brigham and Women’s Hospital
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Congratulations to the 2013 Distinguished Investigators.
**Imaging Research** at NIH continues to see strong demand. The total amount of research that involved imaging grew by 8% in FY2012.

Of all diseases studied at NIH utilize medical imaging 88%.

![Diagram showing total imaging research at NIH, nominal dollars from 2005 to 2012.](image)

How much was imaging utilized by researchers in various areas of science in 2012?

- Neuroscience: 19.1%
- Cardiovascular: 12.4%
- Arthritis: 11.8%
- Cancer: 10.2%

![Diagram showing imaging projects, percent of NIH budget, 2004-2012.](image)

![Diagram showing total NIH dollars (millions) to radiology departments, 2003-2012.](image)

Despite this demand, just 1.1% of NIH’s budget dedicated towards imaging development.

![Graph showing top radiology research departments, 2012.](image)

For complete rankings, go to www.acadradi.org

Courtesy: Stan Baum, MD
The best method of advocating remains a simple letter.

An active dialogue with Congress is a powerful tool, and there is no stronger advocacy voice than that of a constituent. In 2012 and 2013, the Academy and CIBR grassroots advocates sent record numbers of letters to their elected officials. Academy staff identify those legislators that received high numbers of letters and arrange for a follow up meeting with the office to discuss the importance of imaging research and NIH funding. By building these relationships on Capitol Hill, the imaging research community is becoming a respected resource on the future of medical research and the exciting opportunities for imaging science.
On May 7, 2013, CIBR held its fourth annual Medical Technology Event on Capitol Hill. The goal of this annual event is to highlight how imaging research is improving patient care, and how funding for the National Institutes of Health (NIH) is critical for future imaging innovations. Senator Richard Burr (R-NC) and Senator Robert Casey (D-PA) offered remarks, which followed a keynote address by Dr. Christopher Austin, the Director of the National Center for Advancing Translational Sciences (NCATS), at the NIH.

Senator Casey commended the imaging community, noting that the event was the most collaborative one that he had seen during his years in the Senate. He also implored imaging advocates to keep the message alive that the United States needs a sustainable NIH budget.

Senator Burr, the original sponsor of the legislation that created the National Institute of Biomedical Imaging and Bioengineering (NIBIB), provided the most passionate remarks in support of the NIBIB and imaging science. The Senator lauded NIBIB Director Dr. Rod Pettigrew for his tremendous stewardship of the Institute’s first decade, which saw numerous advances in both the clinical setting and commercial markets.

The showcase capped a day of meetings on Capitol Hill, during which patients, academics, and industry representatives met with over 40 offices in support of the NIBIB. In addition, Academy/CIBR members met with a number of NIH Institute Directors and leaders.
While events like the Medical Technology Event bring together the many stakeholders in CIBR to convey the remarkable promise of imaging research, demonstrating to policy-makers the tremendous patient impact from imaging science.

With the Administration and Congress looking for areas of research that generate greater returns on investment, the Academy is working in an evidence-based way to ensure that imaging research is seen as the key scientific and economic driver that it is.
As part of the Academy of Radiology Research’s outreach to the NIH, we asked the Radiology Department Chairs to nominate their faculty members to serve on the NIH Study Sections. The NIH is looking for potential reviewers who have experience with the peer review process and who have received grant funding from the NIH or another federal government agency.

In 2013, the Academy nominated researchers to the following study sections:

**Medical Imaging Study Section (MEDI)**
- Arvind P. Pathak, PhD
- James C. Carr, MB, BCh, BAO
- Jiang Du, PhD
- Michael T. McMahon, PhD
- Sharmila Dorbala, MD
- Mahadevappa Mahesh, MS, PhD

**Biomedical Imaging Technology Study Sections (BMIT A & BMIT B)**
- Ali Hafezi-Moghadam, MD, PhD
- Arvind P. Pathak, PhD
- Michael T. McMahon, PhD
- Mahadevappa Mahesh, MS, PhD

**Clinical Molecular Imaging and Probe Development Study Section (CMIP)**
- Jeff W.M. Bulte, PhD
- Sharmila Dorbala, MD
- Nobuhiko Hata, PhD

**Enabling Bioanalytical and Imaging Techniques Study Section (EBIT)**
- Arvind P. Pathak, PhD

**Bioengineering, Technology, and Surgical Sciences Study Section (BTSS)**
- Nobuhiko Hata, PhD

**Diseases and Pathophysiology of the Visual System Study Section (DPVS)**
- Arvind P. Pathak, MD, PhD

**Neuroscience and Ophthalmic Imaging Techniques Study Section (NOIT)**
- Ali Hafezi-Moghadam, MD, PhD

**Atherosclerosis and Inflammation of the Cardiovascular System Study Section (AICS)**
- James C. Carr, MB, BCh, BAO

**Cardiac Contraction, Hypertrophy, and Failure Study Section (CCHF)**
- James C. Carr, MB, BCh, BAO

**Clinical and Integrative Cardiovascular Sciences Study Section (CICS)**
- Sharmila Dorbala, MD

**Skeletal Biology Development and Disease Study Section (SBDD)**
- Jiang Du, PhD

**Skeletal Biology Structure and Regeneration Study Section (SBSR)**
- Jiang Du, PhD

**Cellular and Molecular Biology of Glia Study Section (CMGB)**
- Piotr Walczak, MD, PhD

**International and Cooperative Projects-1 (ICP1)**
- Piotr Walczak, MD, PhD

**Transplantation, Tolerance, and Tumor Immunology Study Section (TTT)**
- Piotr Walczak, MD, PhD

**Academic and Industrial Partnerships Recurring Special Emphasis Panel (SBIB-X 57)**
- Tina Kapur, PhD

**Early Phase Clinical Trials in Imaging and Image-Guided Interventions Recurring Special Emphasis Panel (SBIB-W 56)**
- Tina Kapur, PhD

**Bioinformatics in Surgical Sciences, Biomedical Imaging, and Bioengineering Study Section (SBIB Q 80)**
- Tina Kapur, PhD

**Radiation Therapeutics and Biology Study Section (RTB)**
- Mahadevappa Mahesh, MS, PhD

**Small Business Medical Imaging Study Section (SBMI-T)**
- Mahadevappa Mahesh, MS, PhD

With the Administration and Congress looking for areas of research that generate greater returns on investment, the Academy is working in an evidence-based way to ensure that imaging research is seen as the key scientific and economic driver that it is.
Rebranding and Membership

The Academy recently undertook a rebranding exercise to freshen the look of the organization’s logo.

The new look reflects the Academy’s founding members’ preference of referring to the organization as simply “the Academy,” yet adds key attributes that reflect our unique Mission.

The three concentric circles not only evoke notions of advanced imaging, but come together to represent the three-legged stool of academic research: science, industry, and patients. The three circles also represent the Academy’s mission of advocacy, education and patient engagement.

Academy Staff

Academy staff members, from left to right:
Mike Kalutkiewicz, Senior Director of Government Affairs
Roxanne Yaghoubi, Policy and Programs Manager
Renee Cruea, Executive Director

CIBR on Social and Traditional Media

As the Academy has grown, the revenue share has adjusted over time. The Academy’s Academic Council has grown over the past five years, now accounting for almost 1/3 of the Academy’s operating budget. To reflect this growth from academic radiology, the Academy will be adding two Representatives from ARRAC to the Academy Board in 2014.