



**AMERICAN SOCIETY  
FOR RADIATION ONCOLOGY**

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May 6, 2022

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National Institutes of Health (NIH)  
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Dear Dr. Lowy,

I am writing to request your consideration for increased funding for radiation oncology research in FY22 and beyond. As you know, radiation oncology has been delivering outsized public health benefits to our cancer patients for decades. Fifty to sixty percent of all cancer patients receive radiotherapy<sup>1-3</sup>. It is a cornerstone of curative therapy, and radiotherapy is at least partially responsible for 40% of all cancer cures<sup>2,3</sup>. In addition, radiation therapy provides palliative relief for ~3.5 million patients per year<sup>6</sup>. For example, radiotherapy is an effective treatment option for patients with painful bony metastases<sup>7</sup>.

The unique biologic and technical physical properties of radiation also make it a superior treatment option for a variety of patients. Such advantages include being physically and biologically targeted and hence organ-sparing<sup>8</sup>; the capacity to cure Stage IV (oligometastatic) cancer; and delivery in outpatient settings with less intrusion on the cancer patients' life. Radiation oncology is an integral part of the multimodality treatment of cancer in adults and children and, in fact, is one of the undisputed pillars of modern cancer care in the United States. NIH's RePORTER, however, currently forecasts only a \$390 million investment (across both intramural and extramural research) in radiation oncology research in FY2022<sup>9</sup>, accounting for less than 5.7% of NCI's \$6.9 billion approved budget<sup>10</sup>. This disparity is a lost opportunity to improve understanding of basic cancer biology and ultimately, to improve cancer care.

Radiation oncology is in a time of accelerated change bringing shorter more convenient radiation courses, integration of the genomic assays, synergies with immunotherapy, life-prolonging metastatic ablation, and benefits of advanced technologies. These enormous advances beget the profound need for further study to expand and personalize these options and minimize risks. Further, the field is witnessing a strong pipeline of cutting-edge innovations that are demonstrating substantive clinical promise for the future<sup>8</sup>.

A few examples of such innovations include novel radiopharmaceuticals, proton/particle therapy, ultra-high dose rate (FLASH) radiotherapy<sup>11,12</sup>, and new combinations of immunotherapy and targeted agents<sup>13,14</sup>. Better understanding of the biological basis of responses in cancer patients who undergo radiation treatments with modern techniques and in combination with other agents will be a key enabler to fully realize the promises of such innovations, and potentially benefit more cancer patients than any other single treatment option can do, due to the broad reach and versatility of radiation therapy. Underfunding of this portion of our national research portfolio is critical to correct for the field and the patients we serve.

Historically, radiation oncology has not received research funding that is proportional to the discipline's scale of public health benefits nor the wealth of innovation created in the discipline. We believe it is time to change that disparity and correct the historical loss of opportunities to enhance public health through radiation oncology research and innovations. As the Acting Director of the NCI, you have the discretion to adjust the extramural research funding for radiation oncology to a more balanced level this year. For example, in bolstering radiation research project grants such as the R01s and consideration of enhanced support for new mechanisms such as [Radiation Oncology-Biology Integration Network \(ROBIN\) Centers \(U54 Clinical Trial Required\) RFA-CA-21-040](#) provides additional opportunity to ensure "an agile and effective national radiation oncology network infrastructure that collectively address critical hypothesis-based translational research knowledge gaps on the biological basis of responses in cancer patients who undergo radiation treatments." There is a significant excess of worthy, yet unfunded grants affected by this substantial disparity in support within our national portfolio. We recommend the NCI consider expanding support for R01, U54 and develop new mechanisms of funding for the radiation oncology field in this fiscal year and beyond.

Thank you very much for your consideration of this request.

Sincerely,



Laura Thevenot  
Chief Executive Officer

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