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Memorial Sloan Kettering
Cancer Center

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[Back](#)

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[Our mission, vision & core values](#)

[Leadership](#)

[History](#)

[Inclusion & belonging](#)

[Annual report](#)

[Give to MSK](#)

[SEARCH](#) [TOP](#)



Joseph O. Deasy
Principal Investigator

Since 2010, Dr. Joseph O. Deasy has been the Enid A. Haupt Chair in Medical Physics and the Chair of the Department of Medical Physics at Memorial Sloan Kettering Cancer Center. The MSK Department of Medical Physics, one of the oldest and largest medical physics groups in the world, conducts research and provides clinical support for radiological and molecular imaging, radiotherapy, all aspects of radiation safety, and biomedical engineering. Dr. Deasy also leads the Predictive Informatics Service within the Department of Medical Physics that focuses on using advanced mathematical, statistical, and artificial intelligence methods to support cancer research.

and treatment. His group's research focuses on the use of information to classify and predict response to cancer treatments, with a focus on the optimization of radiation therapy planning and delivery. He has been the Principal Investigator of six NIH research projects and also leads the Mathematical Oncology Initiative funded by the Breast Cancer Research Foundation. Under his leadership, MSK has implemented advanced optimization and AI methods that have been used to treat over 5000 patients. Dr. Deasy is the author or co-author of over 250 peer-reviewed publications. Prior to coming to MSK, Dr. Deasy was a full Professor with tenure and the Director of the Division of Bioinformatics and Outcomes Research, in the Department of Radiation Oncology at Washington University in Saint Louis. He received his PhD in Physics and Astronomy from the University of Kentucky in 1992. He was a National Cancer Institute-supported Postdoctoral Fellow in Medical Physics at the University of Wisconsin-Madison. He is also a Fellow of the American Association of Medical Physicists.

[View More \(https://www.mskcc.org/research-areas/labs/joseph-deasy/overview\)](https://www.mskcc.org/research-areas/labs/joseph-deasy/overview)

Featured News



[At Work: Physicist Joseph Deasy](#)

Physicist Joseph O. Deasy, Chair of the Department of Medical Physics and an expert in radiation therapy, uses physics to contribute to the fight against cancer.

People



Members

Ya (Amy) Wang
Senior Analyst, Project
Management

Areli Zuniga
Graduate Student
Alumni

Affiliations

Achievements

- Fellow, American Association of Medical Physicists

Joseph O. Deasy
Principal Investigator

News & Events

[2021 Edelman Finalist: Memorial Sloan Kettering \(short 3min video\)](#)

Open Positions

To learn more about available postdoctoral opportunities, please visit our [Career Center](#)

Research in precision optimization of cancer radiation treatments

Our laboratory uses advanced machine learning, systems biology, optimization, and modeling methods to better understand individual cancer characteristics and how to optimize radiation treatments for that patient.

[Apply now \(<https://www.mskcc.org/research-areas/labs/joseph-deasy/research-precision-optimization-cancer-radiation-treatments>\)](#)

Get in Touch

 [212-639-8413](#)

Office Phone

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