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Cancer Center

[About Us](#)
[Sloan Kettering Institute](#)

MOLECULAR PHARMACOLOGY PROGRAM

[Research](#)

The Hedvig Hricak Lab

[Education & Training](#)

Molecular Pharmacology Program
[News & Events](#)

Research
[Open Positions](#)



Hedvig Hricak, MD, PhD
Carroll and Milton Petrie Chair

Our laboratory is working on establishing phenotypic signatures of cancer using multimodality anatomic and molecular imaging. We also aim to integrate multimodality imaging with anatomic pathology, genomics, and other molecular signatures to gain further insight into comprehensive molecular and anatomic tumor profiling. The goal is to further advance understanding of in vivo tumor biology and tumor heterogeneity (both spatial and temporal). We plan to develop and validate tumor biomarkers that can be used for treatment selection, assessment of treatment response or early detection of treatment resistance. Using advanced computational methods of radiomics and radiogenomics, we are evaluating how multimodality/multiplexing technology can advance our knowledge of tumor phenotypes and their associations with genomic mutations. We are also exploring targeted imaging and targeted therapies to ultimately expand the field of theranostics, which we believe is one of the future paths to

precision medicine.

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Featured News

IN THE CLINIC



[How Our New Particle Accelerator Will Make Cancer Imaging and Treatment More Precise](#)

The launch of a 20-ton instrument and a facility for producing radioactive imaging molecules will allow our doctors and scientists to monitor cancers in unparalleled detail.

ANNOUNCEMENT

The Hedvig Hricak Lab



[Memorial Sloan Kettering Launches New Center for Molecular Imaging and Nanotechnology](#)

The new center brings together scientists and clinicians working in various fields who will use the power of imaging to speed research and innovations in cancer care.



[New Nanotechnology Center Combines Cutting-Edge Science with Memorial Sloan Kettering's Expertise in Patient Care](#)

To take advantage of the growing field of nanotechnology, Memorial Sloan Kettering has established a Nanotechnology Center.

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Publications Highlights

[Vargas HA, Wassberg C, Fox JJ, Wibmer A, Goldman DA, Kuk D, Gonen M, Larson SM, Morris MJ, Scher HI, Hricak H. Bone metastases in castration-resistant prostate cancer: associations between morphologic CT patterns, glycolytic activity, and androgen receptor expression on PET and overall survival. Radiology. 2014 Apr;271\(1\):220-9. PubMed Central PMCID: PMC4263648. PubMed](#)

[Donati OF, Afaq A, Vargas HA, Mazaheri Y, Zheng J, Moskowitz CS, Hricak H, Akin O. Prostate MRI: evaluating tumor volume and apparent diffusion coefficient as surrogate biomarkers for predicting tumor Gleason score. Clin Cancer Res. 2014 Jul 15;20\(14\):3705-11. PubMed](#)

[Suidan RS, Ramirez PT, Sarasohn DM, Teitcher JB, Mironov S, Iyer RB, Zhou Q, Iasonos A, Paul H, Hosaka M, Aghajanian CA, Leitao MM Jr, Gardner GJ, Abu-Rustum NR, Sonoda Y, Levine DA, Hricak H, Chi DS. A multicenter prospective trial evaluating the ability of preoperative computed tomography scan and serum CA-125 to predict suboptimal cytoreduction at primary debulking surgery for advanced ovarian, fallopian tube, and peritoneal cancer. Gynecol Oncol. 2014 Sep;134\(3\):455-61. PubMed Central PMCID: PMC4387777. PubMed](#)

[Donati OF, Mazaheri Y, Afaq A, Vargas HA, Zheng J, Moskowitz CS, Hricak H, Akin O. Prostate cancer aggressiveness: assessment with whole-lesion histogram analysis of the apparent diffusion coefficient. Radiology. 2014 Apr;271\(1\):143-](#)

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[Wibmer A, Hricak H, Gondo T, Matsumoto K, Veeraraghavan H, Fehr D, Zheng J, Goldman D, Moskowitz C, Fine SW, Reuter VE, Eastham J, Sala E, Vargas HA. Haralick texture analysis of prostate MRI: utility for differentiating non-cancerous prostate from prostate cancer and differentiating prostate cancers with different Gleason scores. Eur Radiol. 2015 Oct;25\(10\):2840-50. PubMed Central PMCID: PMC5026307. PubMed](#)

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People



Hedvig Hricak, MD, PhD

Carroll and Milton Petrie Chair

Radiologist Hedvig Hricak researches methodologies of molecular imaging of prostate and gynecologic tumors.

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Lab Affiliations

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Disclosures

Doctors and faculty members often work with pharmaceutical, device, biotechnology, and life sciences companies, and other organizations outside of MSK, to find safe and effective cancer treatments, to improve patient care, and to educate the health care community.

MSK requires doctors and faculty members to report (“disclose”) the relationships and financial interests they have with external entities. As a commitment to transparency with our community, we make that information available to the public.

Hedvig Hricak discloses the following relationships and financial interests:

Ion Beam Applications

Fiduciary Role / Position

Paige.AI, Inc.

Fiduciary Role / Position

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This page and data include information for a specific MSK annual disclosure period (January 1, 2022 through disclosure submission in spring 2023). This data reflects interests that may or may not still exist. This data is updated annually.

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 - [Leadership](#)
 - [Administration](#)
 - [History](#)
 - [Contact Us](#)
 -
 -
 -
 -
 -
- ▾ Research
 - [Overview](#)
 - [Research programs](#)
 - [Research labs](#)
 - [Core facilities & resources](#)
- ▾ Education & Training
 - [Overview](#)
 - [Postdoctoral training](#)
 - [Gerstner Sloan Kettering Graduate School](#)
 - [Joint graduate programs](#)
 - [Programs for college & high school students](#)
- ▾ News & Events
 - [Overview](#)
 - [Seminars & events](#)
- ▾ Open Positions
 - [Overview](#)
 - [Faculty positions](#)
 - [Postdoctoral positions](#)

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