

# Isabelle Germano

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Specialty Neurological Surgery

Certifications Neurological Surgery

Clinical Focus Acoustic Neuroma Astrocytoma Biopsy Brain Metastasis Brain Tumor And Brain Cancer Brain, Spine Tumors Computer Guided Craniotomy Craniotomy Epilepsy Glioblastoma Multiforme Meningioma Pituitary Adenoma Stereotactic Radiosurgery Research Topics Anti-Tumor Therapy Apoptosis/Cell Death Autophagy Brain Cancer Cellular Differentiation Gene Expressions Gene Therapy Metastasis Migration Molecular Biology Neuroscience Seizure Stem Cells Translation Tumor Suppressor Genes Tumorigenesis

Training Areas Developmental and Stem Cell Biology [DSCB]

Education MD, University of Turin Medical School

Residency, Surgery Univ. of California, San Francisco

Residency, Neurosurgery Univ. of California, San Francisco

Residency, Neurosurgery Albert Einstein College of Medicine

Fellowship, Neurosurgery University of Zurich

Fellowship, Neurosurgery Montreal Neurological Institute

## Biography

Dr. Germano joined the faculty at Mount Sinai in 1993. She is Director of The Mount Sinai Comprehensive Brain Tumor Program, an advanced multidisciplinary program based on computer-assisted image-guided neurosurgery and brain mapping to accomplish minimally invasive procedures and treatment of brain tumors, and is Co-director of the Radiosurgery Program.

You can learn more about Dr. Germano by visiting the Neurosurgery Tumors website.

Her specialty interests include Brain Tumors, Computer-Assisted Image-Guided Neurosurgery, Epilepsy surgery and Radiosurgery. She is Director of The Mount Sinai Medical Center Comprehensive Brain Tumor Program, an advanced multidisciplinary program based on computer-assisted image-guided neurosurgery and brain mapping to accomplish minimally invasive procedures and treatment of brain tumors. Dr. Germano is one of the pioneers of computer-assisted image-guided neurosurgery. This sophisticated technology, including the Novalis Shaped Beam Surgery, is used to perform minimally invasive surgery for patients with brain tumors, epilepsy, Parkinson's disease and movement disorders. Active in national neurosurgery organizations, she has served as an executive committee member for the Congress of Neurosurgery (CNS), as a Board of Directors' member for the American Association of Neurological Surgeons, as an executive committee member of the AANS/CNS Joint Section on Tumors, and as a scientific program member for the AANS, CNS, and the American Epilepsy Society. For the past five years she has directed a course, Advanced Techniques in Image-

Guided Brain and Spine Surgery, for neurosurgeons from around the country. In the News Dr. Germano and her work diagnosing and treating brain tumors were recently profiled in The Daily News feature The Daily Check Up. View the PDF. Awards 2014 - Leksell Radiosurgery Award American Association of Neurological Surgeons 2013 - Technology Development Award Icahn School of Medicine at Mount Sinai 2012 - 2016 Neurological Devices Voting Member Food and Drug Administration 2008 - 2013 Research grant: Brain tumors and gene transfer National Institute of Health 2007 - Brain Tumor Research Goldhirsh Foundation 2006 - Life Time Member Who is Who Strathmore's 2006 - New York State Certificate of Recognition, Dedication and Service to the Italians Culture and Community New York State 2005 - Certificate of Excellence in Youth Education New York City Department of Education and Mount Sinai School of Medicine 2004 - Neurosurgery Research Award New York State Society 2002 - 2006 America's Top Cancer Doctors Castle Connolly 2000 - 2006 Best Doctors Of New York New York Magazine 2000 - 2006 Top Doctors New York Metro Area Castle Connolly 1994 - Mary Putnam Jacobi Award Women's Medical Association of New York City 1993 - W. Penfield Award American Epilepsy Society Research Translational research for malignant brain tumors The main focus of the laboratory is to investigate new strategies for adjuvant treatment of malignant brain tumors. With the support from the National Institutes of Health, NIH, private foundations and Industry, the laboratory has been very productive in investigating new promising modalities and compound to kill brain tumor cells. Embryonic stem cells are currently used in animal models to transfer genes to brain tumors.

Image-guide computer-assisted neurosurgery One of the pioneers in this field, Dr. Germano continues to collaborate with the industry in making neurosurgical resections more accurate and less invasive.

Related Link: Brain Tumor and Gene Therapy Laboratory Publications Germano IM, Emdad L, Qadeer ZA, Binello E, Uzzaman M. Embryonic stem cell (ESC)-mediated transgene delivery induces growth suppression, apoptosis and radiosensitization, and overcomes temozolomide resistance in malignant gliomas.. Cancer Gene Ther 2010 Jun; Epub ahead. Roberts CC, Daffner RH, Weissman BN, Bancroft L, Bennett DL, Blebea JS, Bruno MA, Fries IB, Germano IM, Holly L, Jacobson JA, Luchs JS, Morrison WB, Olson JJ, Payne WK, Resnick CS, Schweitzer ME, Seeger LL, Taljanovic M, Wise JN, Lutz ST. ACR appropriateness criteria on metastatic bone disease.. J Am Coll Radiol 2010 Jun; 7(6): 400-409. Videtic GM, Gaspar LE, Aref AM, Germano IM, Goldsmith BJ, Imperato JP, Marcus KJ, McDermott MW, McDonald MW, Patchell RA, Robins HI, Rogers CL, Suh JH, Wolfson AH, Wippold FJ. American College of Radiology Appropriateness Criteria® topic, Multiple Brain Metastases. J Radiation Oncology Biology Physics 2009 Nov; 75(4): 961-965. Binello E, Germano IM. Tonsillary carcinoma after temozolomide treatment for glioblastoma multiforme: treatment-related or dual-pathology?. J Neurooncol 2009 Aug; 94(1): 145-148. Germano IM, Binello E. Gene therapy as an adjuvant treatment of malignant gliomas: from bench to bedside. J Neuro-Oncology 2009 May; 93(1): 79-87. Uzzaman M, Keller G, Germano IM. In vivo Gene Delivery by embryonic stem cell-derived astrocytes for malignant gliomas. Neuro-Oncology 2009 Apr; 11(2): 102-108. Gonzales A, Sullivan G, Sips GJ, Naidich T, Kleinman G, Murray J, Morgello S, Germano IM, Mullen M, Simpson D. . Inflammatory Pseudotumor associated with HIV-JCV an immune-reconstruction syndrome. Neurology 2009 Jan; 72(3): 289-290. Benzil D, Abosch A, Germano IM, Gilmer H, Maraire N, Muraszko K, Pannullo S, Rosseau G, Schwartz L, Todor R, Ullman J, Zusman E. The future of neurosurgery: a white paper on the recruitment and retention of women in neurosurgery. J Neurosurgery 2008 Sept; 109(3): 378-386. Germano IM, Uzzaman M, Keller G. Gene delivery by embryonic stem cells for malignant gliomas. Cancer Biology and Therapy 2008 Sept; 7(9): 1341-1347. Uzzaman M, Keller G, Germano I. In vivo Gene Delivery by embryonic stem cell-derived astrocytes for malignant gliomas. Neuro-Oncology 2008 Apr; 11(2): 102-108. Uzzaman M, Keller G, Germano IM. Enhanced pro-apoptotic effects of tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) on temozolomide-resistant glioma cells. J Neurosurgery 2007 Apr; 106(4): 646-651. Germano I, Uzzaman M, Benveniste R, Zaurova M, Keller G. Apoptosis in human glioma cells produced using embryonic stem cell-derived astrocytes expressing tumor necrosis factor-related apoptosis-

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