

# Third International Chordoma Research Workshop

March 17 - 19, 2011

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## PARTICIPANT PROFILES

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### **David Alcorta, PhD**

**Primary Specialty:** Molecular Biology

**Bio:** I am a scientist that uses cell and molecular approaches to understanding mechanisms of cancer.

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### **Roger Abounader, MD, PhD**

**Primary Specialty:** Neuro-Oncology Research

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### **Sierk Bakker**

**Primary Specialty:** Medical Student

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### **Ted Bartoletti, PhD**

**Primary Specialty:** Neuroscience

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### **Yair Benita, PhD**

**Primary Specialty:** Computational Biology

**Bio:** I specialize in developing computational tools that use high-throughput data to build molecular models of human biology and disease.

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### **Mark Bilsky, MD**

**Primary Specialty:** Neurosurgery

**Bio:** An Attending of Neurosurgery at Memorial Sloan-Kettering Cancer Center and Associate Professor of Neurosurgery at Weill Cornell University Medical Center. He currently serves as the director of the multi-disciplinary spine oncology program and the neurosurgical craniofacial team for skull base malignancies at MSKCC. He graduated AOA from Emory University Medical School, completed neurosurgery residency at Cornell University Medical Center, and spine fellowship at the Leatherman Spine Institute at the University of Louisville. Dr. Bilsky has been at the Memorial

Sloan-Kettering Cancer Center since 1995 with a focus on advancing the understanding and treatment of both metastatic and primary spine tumors. He has lectured extensively on both spine tumors and craniofacial decision making and outcomes. Dr. Bilsky has published more than 75 peer-reviewed articles in scientific journals and is on the editorial boards of Neurosurgery and Annals of Surgical Oncology.

**Projects:** High dose neoadjuvant radiation

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## **Nicola Boari, MD**

**Primary Specialty:** Neurosurgery

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## **Patrick Boland, MD**

**Primary Specialty:** Orthopedic Oncology Surgery

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## **Fabio Bozzi**

**Primary Specialty:** Flow Cytometry

**Bio:**

Education:

1994: Degree in Biological Sciences at University of Milan (110/110)

2002: Master in chemistry and biochemistry at University of Milan (70/70 cum laude).

Career:

Researcher, division of pathology, Istituto Nazionale Tumori. Milan, Italy.

2001-2005: Researcher, department of medical oncology, Istituto Nazionale Tumori Milan, Italy.

1999-2000: Researcher, department of pathology, Ospedale Niguarda, Milan Italy.

1995-1999: Researcher, Department of human genome and multifactorial diseases (CNR), Segrate, Italy.

Professional skills and major research interests:

Development of pre-clinical model for human sarcoma treatment, Development of phosflow protocols for the detection of the activation status of receptor tyrosine kinases in solid tumors, Normal haematopoietic stem cell (CD34+) and sarcoma cancer stem cells isolation and characterization, Genetic and biochemical study of receptor tyrosine kinases activation in soft tissue tumors, Flow cytometry and real time technologies for diagnosis and minimal residual disease assessment for lymphoma / leukaemia, neuroblastoma, Ewing family tumours and rhabdomyosarcoma, Genetic study of gene involved in paediatric severe combined immunodeficiency; SCID T- B+, T- B- and Omenn syndrome.

**Projects:** Development and characterization of pre clinical models (mouse xenograft or primary cell lines) for chordoma and others sarcoma. Evaluation of the presence and the role during chordoma development of the mesenchymal (CD90, CD44 and CD73+) cells .

**Resources Available:** Characterization of human sarcomas by Flow cytometry, immunohistochemistry, confocal microscopy and biochemistry. Development and characterization of primary (or stabilized) human sarcoma cell lines. "In situ" evaluation of the receptor tyrosine kinases r.

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## Silke Bruderlin, PhD

**Bio:** I studied Biology in Erlangen, Germany with a focus in cellular biology and tumor cytogenetics. I am working in the Institute of Pathology in Ulm, Germany, and I spend a significant amount of time establishing cell lines out of rare tumors.

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## Justin Cates, MD, PhD

**Primary Specialty:** Pathology

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## Yen-Lin Chen, MD

**Primary Specialty:** Radiation Oncology

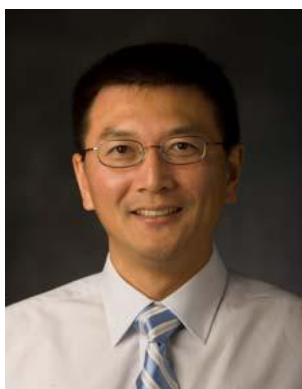
**Bio:** Dr. Chen is a staff radiation oncologist at the Massachusetts General Hospital specializing in the treatment of soft tissue and bone sarcomas including chordomas with advanced radiation techniques including proton radiotherapy, intraoperative radiotherapy, and brachytherapy.

**Interests:** I am a staff radiation oncologist in the Department of Radiation Oncology and a member of the multidisciplinary Stephan L. Harris Center for Chordoma Care at the Massachusetts General Hospital. I treat patients ranging from children, young adults, to adults with soft tissue and bone sarcomas, including chordoma. At this year's meeting, I will share our initial experience using high dose proton-based radiotherapy in the treatment of patients with unresected chordomas.

**Projects:** I am interested in advancing radiation techniques and combined modality approaches in the treatment of chordoma.

**Resources Available:** Proton radiotherapy, Dural plaque brachytherapy (for selected spine sites)

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## Wei Chen, PhD

**Primary Specialty:** Anti-cancer drug development

**Bio:** My research area focuses on how cancers develop. In particular, I am studying how critical extracellular signaling molecules such as Wnt, TGFbeta, and Hedgehog direct normal tissue to change into cancers. These signaling molecules interact with receptors that control cell growth. Abnormalities in the receptors or other proteins they interact with either directly or indirectly result in malignancies. As a result of my research, my laboratory has identified compounds that modulate the activity of these receptors. These compounds will have the potential to

become new therapeutic agents to treat refractory cancers including pancreatic cancer and brain tumors.

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## **Dean Chou, MD**

**Primary Specialty:** Neurosurgery

**Bio:** Dr. Chou completed his residency at the Johns Hopkins Hospital and then undertook a fellowship in complex spinal surgery at the Barrow Neurological Institute. He is board certified by the American Board of Neurological Surgery and has been elected by his peers as one of the Best Doctors in America. He is an expert in the treatment of spinal tumors, both metastatic and primary. He sits as a charter member of the Spinal Oncology Study Group, an international consortium

of experts in the field of studying spinal tumors, and he specializes in en bloc surgery and sacral resections for primary tumors, such as chordoma. He has also served as chairman of spine surgery courses, and he also has taught at numerous courses throughout the country.

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## **Carolyn Compton, MD, PhD**

**Primary Specialty:** Gastrointestinal Pathology

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## **Thomas Delaney, MD**

**Primary Specialty:** Radiation Oncology

**Bio:** Dr. DeLaney is a graduate of Harvard College and Harvard Medical School. Following an internship in General Surgery at Yale-New Haven Hospital, he trained in Radiation Oncology at the Massachusetts General Hospital. He then spent 6 years as a Senior Investigator at the National Cancer Institute in Bethesda MD. Since 1992, he has been on the staff of the Massachusetts General Hospital and on the faculty

of Harvard Medical School. Currently, he is the Medical Director of the Francis H. Burr Proton Therapy Center at Massachusetts General Hospital, Co-Director of the Center for Sarcoma and Connective Tissue Oncology at Massachusetts General Hospital, and Professor of Radiation Oncology, Harvard Medical School. He has served as an Executive Board Member of the Connective Tissue Oncology Society, is a member of the National Comprehensive Cancer Network Soft Tissue Sarcoma Guidelines Panel, and serves as a member of the Scientific Advisory Board of the Chordoma Foundation. He is active in the Radiation Therapy Oncology Group Sarcoma Working Group. Dr. DeLaney has made contributions to the treatment of soft tissue and bone sarcomas and is actively involved in clinical research in this area as well as the use of charged particle (proton) radiation therapy. His bibliography lists 73 original reports as well as 89 reviews, book chapters, editorials, and clinical guidelines. He, along with Hanne Kooy, Ph.D. edited the book, Proton and Charged Particle Radiotherapy( Lippincott Williams and Wilkins, Philadelphia, 2007). He is on the editorial boards of Annals of Surgical Oncology, Journal of Surgical Oncology, Journal of Clinical Oncology, and UpToDate in Oncology.

**Interests:** Actively involved in the treatment of spine chordomas with combinations of surgery and high dose photon/proton radiation, or with high dose photon/proton radiation in selected patients with unresected chordomas.

**Projects:** We are developing pencil beam scanned intensity modulated proton therapy for patients with spine chordomas. We are investigating hypoxia in patients with chordomas using F-18 misonidazole PET CT scans.

**Resources Available:** Principal investigator of a multi-institutional (Mass. General Hospital and M.D. Anderson Cancer Center), NCI-funded program project grant (2008-2013) that includes a clinical project using pencil-beam scanned, intensity modulated proton radiation.

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## **John Eberhardt**

**Primary Specialty:** Bioinformatics

**Bio:** John has spent his career in analysis. Starting as an analyst in Morgan Stanley's investment banking program, John proceeded into a career in Morgan Stanley's venture capital fund, focusing on the analysis and selection of investments in technology. John left Morgan Stanley five years ago to become one of the founders of DecisionQ Corporation, a data mining and predictive analysis software company focused on the development of tools for simplifying the analysis of complex problems. John has spoken at numerous conferences on data mining, healthcare, and entrepreneurship, and has published papers on the use of data mining tools for improving patient outcomes in healthcare.

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## **David Eckstein, PhD**

**Primary Specialty:** Rare Diseases - Administrator

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## **Luca Ferrari**

**Primary Specialty:** Molecular Biology

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## **Al Ferreira, RN**

**Primary Specialty:** Orthopedic Oncology Nursing

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## **Manuel Ferreira, MD, PhD**

**Primary Specialty:** Skull Base Tumors

**Bio:** Fellowship trained in the treatment of tumors of the brain and skull base. He utilizes traditional open skull base approaches, minimally invasive endoscopic procedures and gamma knife radio-surgery to provide a multifaceted approach to the tumor patient. He received his training at the Massachusetts General Hospital in Boston.

**Projects:** My research focuses on the genetic analysis of skull base tumors (meningiomas, chordomas, chondrosarcomas, craniopharyngiomas), with an aim to identify the pathways involved in the development and progression of disease .

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### **Soldano Ferrone, MD, PhD**

**Primary Specialty:** Tumor Immunology

**Bio:** Degree in medicine in 1964 from the University of Milan. Has held faculty positions at several academic institutions. Since 2007 he is Professor at the University

**Interests:** Development of immunotherapy for the treatment of chordoma



### **Adrienne Flanagan, MD FRCPATH PhD**

**Primary Specialty:** Pathologist

I am a pathologist with a specialist in bone and soft tissue tumours. A few years ago with my team I identified that brachyury was highly sensitive and specific for the diagnosis of chordoma. Since then we have identified that chordomas (brachyury and CK19+ tumours) also occur in soft tissue and in skeletal extra-axial sites. We are: 1. studying what effect brachyury mediates on mesenchymal stem cells 2. studying how to maintain chordoma cell lines and 3. attempting to identify if there are biomarkers for clinical progression.

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### **Jane Fountain**

**Primary Specialty:** Human Genetics

**Bio:** Dr. Fountain joined NINDS in 2005 as a Program Director in the Neural Environment Cluster. She currently oversees the brain tumor, tuberous sclerosis, neurofibromatosis, and glial biology portfolios. Dr. Fountain received her bachelor's degree from the University of Virginia and a Ph.D. in Human Genetics from the University of Michigan. After postdoctoral training at M.I.T., she became an Assistant and, then, Associate Professor in the Institute for Genetic Medicine, Department of Biochemistry & Molecular Biology, at the University of Southern California. While there, she performed research focused on identifying and characterizing tumor suppressor genes involved in sporadic and familial melanoma. As a graduate student, she was part of a team that localized and identified the von Recklinghausen neurofibromatosis (NF1) gene. Prior to joining NINDS, Dr. Fountain was a Program Director at the National Cancer Institute (NCI) for five years where she oversaw large, multi-disciplinary, translational [Specialized Program of Research Excellence (SPORE)] grants on brain tumors, as well as breast, gynecological, and skin cancers. Her interests lie in promoting interactions that facilitate the translation of basic discoveries into clinical applications and encourage collaborations between investigators with diverse expertise.

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**Paul Gardner, MD**

**Primary Specialty:** Skull Base Surgery

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**Christopher Gilchrist, PhD**

**Primary Specialty:** Intervertebral Disc Cell Biology and Mechanics

**Bio:** a post-doctoral researcher working in the lab of Dr. Lori Setton at Duke University. His research interests include investigating the mechanical and biological roles of specific cell-matrix interactions in the nucleus pulposus of the intervertebral disc. He is currently studying the cell-matrix interactions of cultured chordoma cells, and is attempting to establish chordoma cell lines.

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**Ziya Gokaslan, MD**

**Primary Specialty:** Neurosurgery Spine

**Bio:** Born on April 07, 1959 in Washington, D.C. (USA). He later returned to Turkey with his family where he completed his medical education at the Medical Faculty of Istanbul University. In 1984, Dr. Gokaslan returned to the U.S. and worked as the Clinical Director of Sleep Disorders Center of the Department of Psychiatry for 1 ½ years. He then entered General Surgery Residency under Dr. Michael E. DeBakey in 1985. After one year of internship, he joined Department of Neurosurgery of Baylor College of Medicine as Clinical Neurotrauma Research Fellow. In 1988, he became a Neurosurgery Resident under Dr. Robert G. Grossman and completed his training at the Baylor College of Medicine in Houston in 1993. He was, then, accepted into Neurosurgery/Orthopaedic Spine Surgery Fellowship Training under Drs. Paul Cooper and Thomas Errico at the New York University Medical Center in New York. After the completion of his Fellowship Training in Spinal Surgery, Dr. Gokaslan returned to Houston and joined the faculty of Department of Neurosurgery as Assistant Professor at the University of Texas, MD Anderson Cancer Center under Dr. Raymond Sawaya. That is where Dr. Gokaslan specialized in the surgical treatment of spinal neoplasms, published extensively on the topic and developed novel surgical approaches in managing these tumors. In 2000, Dr. Gokaslan became the Director of Neurosurgical Spinal Oncology Section and, in 2002, he was appointed as Deputy Chairman of the Department of Neurosurgery and was promoted to Associate Professor. In 2002, Dr. Gokaslan was recruited to Johns Hopkins University, Department of Neurosurgery and became the Director of the Spine Division, Vice-Chairman, and Professor of Neurosurgery, Oncology, and Orthopaedic Surgery under Dr. Henry Brem. Later that year, he was awarded the Donlin M. Long Professorship at Johns Hopkins. Dr. Gokaslan's clinical practice focuses on the radical surgical treatment of both primary and metastatic spinal tumors, sacral neoplasms and spinal cord tumors. He developed many novel approaches for resection of pancost tumors, spinal neoplasms, as well as sacral tumors, including total sacrectomy and complex spinal and pelvic reconstruction. His basic research focuses on the development of new

animal models to study the pathophysiology of neoplastic spinal cord compression and to define the roles of proteolytic enzymes in tumor invasion and to devise novel therapeutic approaches to spinal tumors.

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### **Alisa Goldstein, PhD**

**Primary Specialty:** Genetic Epidemiology

**Interests:** I work with Dilys Parry, Rose Yang, and Mike Kelley to identify high-risk susceptibility genes for chordoma.

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### **Rashmi Gopal-Srivastava, PhD**

**Primary Specialty:** Genetic Diseases

**Bio:** Dr. Gopal-Srivastava is Director of Extramural Research Program in the Office of Rare Diseases Research at the National Institutes of Health (NIH). Prior to her current position she has served as program director for breast cancer SPOREs (Specialized program of Research Excellence) in the Office of Director, NCI. Since 2006 she has coordinated the program on Rare Diseases Clinical Research Network (RDCRN) and focused her responsibility in developing, managing and expanding programs and activities in clinical and translational research with primary emphasis on rare diseases including cancers. She received her Ph.D. in Microbiology and Immunology from the Medical College of Virginia, Virginia Commonwealth University, Richmond, Virginia in 1989. She has published several papers in peer-reviewed journals, written book chapters and delivered invited oral presentations nationally and internationally. Dr. Gopal-Srivastava has received several honors and awards and is a member of a number of scientific committees. She has served on several NIH Committees such as NCI Working Group for response to NCI Breast Cancer Progress Review Recommendations, NIH Road Map 1.5 Protein Capture/proteome Working Group and as Chairperson, Subgroup 4 (Characterization and Validation), as NCI Consultant for NIH-R21 Working Group and as NCI Representative for Brain Tumor Progress Review Group Meetings. Currently she is an active member of NIH Nanotechnology Task Force, Trans-NIH Coordinating Committee for Lymphatic Research and Trans NIH Rare Diseases Working Group. She has actively participated as invited panel member for many workshops/meetings e.g. TransMed Partner Forum Inaugural Meeting: Defining Success in Translational Medicine, Saint Louis, Vitamin and Cofactor Therapy and Clinical Trials for Mitochondrial Diseases, Mitochondrial Mini Symposium, Conference on Clinical Research for Rare Diseases and Program faculty for the Workshop "Accelerating Anti Cancer Agent Development and Validation", a workshop for clinical and translational cancer investigators, sponsored by AACR, NCI, FDA, ASCO and Duke Cancer Center. She is a recipient of awards like NIH Merit Award, Outstanding Achievement Award (for excellence in science) from NIH Asian Pacific Islander American Organization, Office of Science Education Award, for active participation in NIH Speakers Bureau Office of Science Education, Exceptional Performance Award from NIH, Office of Director, ORDR, Superior Sustained Performance Award from NCI, NIH and Department of Health and Human Services Outstanding Community Service Award under DHHS APAnet. Recently she was featured in Women in Science at the National Institutes of Health 2007-2008

<http://orwh.od.nih.gov/>. She is also an elected President, NIH Asian Pacific American Organization (APAO) for past two years, NIH APAO Council Member and has served as Chairperson, Education and Award Committee for NIH APAO.

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## Naheed Gul, MS

**Primary Specialty:** Chordoma

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## Sridharan Gururangan, MRCP (UK)

**Primary Specialty:** Pediatric Neuro-Oncology

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## Karl Haglund, MD, PhD

**Primary Specialty:** Radiation Oncology

**Interests:** We are working on the radiobiology of chordoma.

**Projects:** The goal of our work is to find ways to make therapeutic radiation more effective against chordoma, while minimizing toxicity.

**Resources Available:** Radiobiological Applications.

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## Brian Harfe, PhD

**Primary Specialty:** Developmental Biology

**Bio:** Dr. Harfe obtained a BS (honours) degree from the University of Glasgow in Glasgow, Scotland and a Ph.D. investigating muscle development in the nematode *C. elegans* in the laboratory of Dr. Andrew Fire (2006 Nobel Prize winner for his discovery of RNAi) at Johns Hopkins University. After obtaining his Ph.D. he moved to Emory University and began a postdoctoral position in the laboratory of Dr. Sue Jinks-Robertson working on DNA damage pathways in yeast. In 2000,

he moved to Boston where he began a second postdoctoral position in the laboratory of Dr. Cliff Tabin at Harvard Medical School working on the molecular pathways responsible for limb formation using the mouse and chick model systems. In 2003, he became an Assistant Professor in the Molecular Genetics and Microbiology Department at the University of Florida (UF) College of Medicine in Gainesville, Florida. Currently, he is an Associate Professor (tenured) in the UF College of Medicine, Director of the Program in Developmental Genetics and a Provost Fellow. Current projects in the Harfe laboratory include investigating limb and intervertebral disc development using the mouse, chick and *C. elegans* model systems.

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## Wesley Hsu, MD

**Primary Specialty:** Neurosurgery

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## **Ruili Huang, PhD**

**Primary Specialty:** Informatics

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## **Priscilla Hwang**

**Primary Specialty:** Graduate student in biomedical engineering

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## **James Inglese, PhD**

**Primary Specialty:** Assay Development/HTS

**Bio:** Dr. Inglese leads the new Assay Development and Screening Technology Laboratory of the NIH Center for Translational Therapeutics (NCTT) after co-founding the NIH Chemical Genomics Center (NCGC) and acting as its Deputy Director. He is also an Associate Investigator of the National Human Genome Research Institute (NHGRI) at the NIH. Dr. Inglese received his Ph.D. in Organic Chemistry from the Pennsylvania State University and completed post-doctoral training in the laboratory of Prof. Robert J. Lefkowitz at Duke University Medical Center. Before coming to the NIH, Dr. Inglese led research teams at the Princeton-based biotech Pharmacoepia and Merck Research Laboratories. Over the past two decades, Dr. Inglese has contributed to over 150 publications and patents; he has focused his efforts on the early drug discovery process through the development of novel assay formats and high throughput screening paradigms. Dr. Inglese is the Founding Editor (2002) and Editor-in-Chief of the journal, ASSAY and Drug Development Technologies.

## **Mitsunori Kaya**

**Primary Specialty:** Orthopedic Oncology

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## **Michael Kelley, MD**

**Primary Specialty:** Medical Oncology

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## **Anna Larson**

**Primary Specialty:** Medical Student

**Bio:** Medical Student, clinical research in pediatric neurology and neuro-oncology with Drs. Elizabeth A. Thiele and Norbert J. Liebsch

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## **Frank Lieberman, MD**

**Primary Specialty:** Neurology

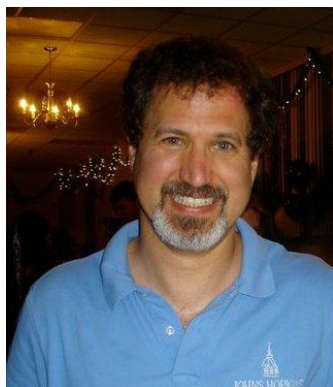
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## Norbert Liebsch, MD, PhD

**Primary Specialty:** Radiation Oncology

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## David Loeb, MD, PhD

**Primary Specialty:** Pediatric Oncology

**Bio:** Dr. Loeb received his undergraduate degree in biology from the Johns Hopkins University. He received an MD and a PhD from Columbia University College of Physicians and Surgeons, and returned to Baltimore for his pediatrics residency at Johns Hopkins. Following his residency, Dr. Loeb completed a fellowship in Pediatric Hematology/Oncology at Johns Hopkins and then joined the faculty there in 2000. His laboratory interests include studying the function and regulation of WT1 and identifying and targeting sarcoma stem

cells. He is also the institutional PI for SARC (the Sarcoma Alliance for Research through Collaboration). He is also the recipient of a research grant from the Chordoma Foundation (which helped fund the work being presented at this conference) and was the proud recipient of the Justin Straus Chordoma Research Award in 2009.

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## Susan Mackem, MD, PhD

**Primary Specialty:** Research scientist-limb development

**Bio:** Susan Mackem received her PhD from the University of Chicago as an MSTP trainee in 1982 and completed her MD at The Johns Hopkins University School of Medicine in 1984. She came to the NIH for residency training in Anatomic Pathology and subsequently joined the Laboratory of Pathology as an expert and in 1995 became an investigator. In 2008, she joined the Cancer and Developmental Biology Laboratory, at NCI-Frederick, where she is currently a senior investigator. Her lab uses a combination of molecular genetic and biochemical approaches to elucidate the regulatory networks that control morphogenesis, using the developing limb as a model. The lab has also had an interest in caudal axis extension and is evaluating brachyury function in notochord.

**Interests:** I am interested in caudal axis extension and my lab is evaluating brachyury function in notochord using an sh-RNA knock-down approach in mouse embryos. We are analyzing the requirements for Brachyury in notochord cell fate and notochord signaling functions.

**Projects:** We hope that our knockdown model for Brachyury function will illuminate its roles in notochord and be useful in better understanding its role in the pathogenesis of chordoma.

**Resources Available:** We developed a conditional transgenic sh-RNA knockdown mouse model to study Brachyury function.

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## Avudai Maran, PhD

**Primary Specialty:** Musculoskeletal Tumor



## **Mary McMaster, MD**

**Primary Specialty:** Medical Oncology

**Bio:** Dr. Mary McMaster received her B.A. in English from the University of North Carolina (UNC) and her M.D. from the Wake Forest University Bowman Gray School of Medicine. She then completed training in Internal Medicine and Medical Oncology at Vanderbilt University Medical Center. During her fellowship, she

became interested in cancer genetics. She returned to North Carolina for postdoctoral training in cellular biology and genetics. She joined the National Institutes of Health in 1996. She completed a residency in Clinical Medical Genetics with the National Human Genome Research Institute before moving to the National Cancer Institute (NCI) in 1998. At NCI, she has pursued her long-term interest in cancer genetics. She is especially interested in understanding the basis for susceptibility to certain rare cancers, including chordoma. She has worked closely with Dr. Dilys Parry at NCI to investigate the epidemiology of chordoma as a means of understanding trends in chordoma incidence, treatment and survival. She has also worked with Dr. Parry to clinically evaluate many of the chordoma-prone families who have contributed to genetic studies of familial chordoma.

**Interests:** Major interest in the epidemiology of chordoma, including trends in incidence, treatment and survival. Our most recent results are reflected in our abstracts. I have also been involved in the clinical characterization of chordoma-prone families who have contributed to our genetic research.

**Projects:** To continue to use epidemiologic tools to develop hypotheses about chordoma in the general population and to continue investigations into the genetic basis for susceptibility to chordoma.

**Resources Available:** Expertise in using the NCI SEER database, in developing family studies, and genetic epidemiology.

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## **Bret Mobley, MD**

**Primary Specialty:** Neuropathology

**Bio:** Dr. Mobley is an Assistant Professor of Neuropathology at the Vanderbilt University Medical Center in Tennessee. He is interested in improving diagnostic techniques and discovering treatments for cancers of the nervous system and surrounding structures.

**Resources Available:** Diagnostic expertise in classic and poorly differentiated chordoma variants. Tumor cell culture from cryopreserved tissue specimens.

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## **Pietro Mortini, Professor**

**Primary Specialty:** Neurosurgery

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## **Jim Mullikin, PhD**

**Primary Specialty:** Computational Geneticist

**Bio:** Dr. Jim Mullikin develops and utilizes computer programs to analyze large data sets generated by systematic DNA sequencing projects. A highly skilled computational geneticist, he collaborates extensively with biomedical researchers, developing data analysis methods specifically tailored for each class of project.

His educational background is in Electrical Engineering and Physics, with an emphasis in image processing and pattern recognition. Dr.

Mullikin first began to apply these skills to the genomics field in 1997,

just as the Human Genome Project was scaling up. He has been involved in many aspects of the Human Genome Project as well as numerous other genome projects. His Sequence Search and Alignment by Hashing Algorithm (SSAHA) greatly sped up the process of SNP discovery, first for The SNP Consortium Project and later in the International HapMap Project. Dr. Mullikin also developed a whole genome assembly program, called Phusion, which most recently assembled the Kalahari Bushman Genome from GS454 next-generation sequence data (Nature, 18 February 2010). Dr. Mullikin is head of the Comparative Genomics Unit within the Genome Technology Branch of NHGRI, and Acting Director of the NIH Intramural Sequencing Center (NISC). His research group provides critical computational support and guidance for a large-scale medical sequencing (LSMS) program based at NISC. Dr. Mullikin works with collaborating investigators to generate preliminary feasibility assessments for their LSMS projects by evaluating the genomic regions that they wish to target, whether it be a specific list of genes or entire genomic intervals. His group then develops an initial design of PCR assays across the regions of interest. If a project is deemed feasible, it is then entered into the NISC sequencing pipeline which, in the end, produces a large number of DNA sequence reads. The reads are then automatically analyzed for the presence of genetic variants. The approach to LSMS is changing rapidly now that next-generation DNA sequencing machines are able to produce sequence 1,000 times less expensive per base than the Sanger-based sequencing instruments. Our most recent LSMS projects capitalize on the strengths of these new sequencing platforms in conjunction with targeted DNA capture methods, especially whole exome capture. Dr. Mullikin's group is also developing new analytical methods to accurately detect genetic variants from data generated by these next-generation instruments.

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## **Kimberly Myers, PhD**

**Primary Specialty:** Biobanking

**Bio:** Dr. Kimberly Myers joined the NCI's Office of Biorepositories and Biospecimen Research (OBBR) in 2008 and works on issues related to biobanking in support of personalized medicine, biospecimen science, and communicating with different stakeholder audiences. Dr. Myers directs OBBR partnering activities and has broad interests in science policy and scientific strategic planning. She first joined the NCI as a Presidential Management Fellow (PMF) in 2006. While completing details as a PMF, Dr. Myers worked in NCI's Office of Science Planning and Assessment (OSPA) and NCI's Small Business Innovation Research (SBIR) Development Center. She also completed a detail in the Capitol Hill Office of the Federation of American Societies for Experimental Biology (FASEB). Prior to joining NCI, Dr. Myers earned her B.S. in Microbiology from Middle Tennessee State University and her Ph.D. from Harvard University's Program in Virology in

the Division of Medical Sciences. Her dissertation research focused on viral entry mechanisms employed by nonenveloped virions, with a focus on viral protein structure-function relationships.

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## **Petur Nielsen, MD**

**Primary Specialty:** Anatomic Pathology



**Bio:** Associate Pathologist  
Director of Bone and Soft Tissue Pathology  
and Electron Microscopy Unit  
Massachusetts General Hospital  
Associate Professor of Pathology  
Harvard Medical School

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## **Ryuichi Okayasu, PhD**

**Primary Specialty:** Radiation Biology

**Bio:** Ph.D. in Radiation biology, Colorado State Univ. 1987

Post-doc., Thomas Jefferson Univ., MD Anderson CC

Assistant Prof., Univ. of Texas, Colorado State Univ.

Team Leader/Director, Int. Space Res. Project, Natl. Inst. Rad. Sci (NIRS)

Director, Heavy-ion Rad. Biol. Res. Group, NIRS

**Interests:** We have been studying the radiobiological aspect of chordoma cell line with a shorter doubling time derived from U-CH1. We are about to show why heavy ion treatment of chordoma is effective as compared to conventional photon treatment. The manuscript describing this is submitted/reviewed and now under revision and soon to be accepted.

**Projects:** To improve chordoma therapy, especially with conventional and heavy ion radiation.

**Resources Available:** a cell line named U-CH1-N, derived from U-CH1 with a short doubling time and similar cell characteristics

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## **Claudia Palena, PhD**

**Primary Specialty:** Tumor immunology

**Bio:** Dr. Palena is a Staff Scientist and Head of the Immunoregulation Group in the Laboratory of Tumor Immunology and Biology, National Cancer Institute, NIH, Bethesda. Dr. Palena received her Ph.D. in Biochemistry from the National University of Rosario, Argentina, and completed a Postdoctoral Fellowship in the Laboratory of Tumor Immunology and Biology, NCI. Dr. Palena has made significant contributions to the field of cancer

immunotherapy, including the identification and characterization of novel tumor-associated antigens, and the use of costimulation for optimal activation of human T-cell responses to tumor



antigens. Dr. Palena's current research is focus on the development of novel immunotherapeutic approaches aimed at targeting critical events in tumor progression with the ultimate goal of designing vaccine(s) platform(s) and combinatorial therapies for the prevention and/or treatment of metastases in human cancer.

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### **Deric Park, MD**

**Primary Specialty:** Neuro-Oncology

**Bio:** Deric Minwoo Park joined the faculty of the Department of Neurological Surgery at the University of Virginia in April of 2010. He is a board certified neurologist with subspecialty training in clinical neuro-oncology.

Dr. Park received his medical degree from Loma Linda University and completed neurology residency at the University of Chicago, where he was selected by the faculty to serve as Chief Resident. He then trained in clinical neuro-oncology and performed research on paraneoplastic neurologic syndromes at the Memorial Sloan-Kettering Cancer Center with Dr. Jerome B. Posner. This was followed by five years as a Research Fellow at the National Institutes of Health.

Dr. Park provides medical care for patients with brain tumors and is the principal investigator of the Laboratory of Brain Tumor Biology in the Department of Neurological Surgery. He is a member of American Association for Cancer Research, American Society of Clinical Oncology, American Academy of Neurology, International Society for Stem Cell Research, Society for Neuro-Oncology, Society for Neuroscience, and the Scientific Advisory Board of the Chordoma Foundation.

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### **Dilys Parry, PhD**

**Primary Specialty:** Cancer Genetics

**Bio:** I have a Ph.D. in genetics and am board certified as a Ph.D. medical geneticist. I worked at the National Cancer Institute for 31 years during which I studied familial cancer syndromes to identify genetic determinants of the familial predispositions. I retired from NCI in 2007 and now serve as a Genetics Consultant there.

**Interests:** I am interested in identifying the genetic changes involved in familial chordoma and in assessing the role of these changes in patients with sporadic chordoma. Our group recently determined that duplications of the T gene (brachyury) were associated with the development of chordoma in four multiplex chordoma families.

**Projects:** To continue to identify and study chordoma families to identify other genes involved in predisposition to this tumor.

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### **Beate Rinner, PhD**

**Primary Specialty:** Cell Culture

**Interests:** Our main focus is the culturing and establishment of new chordoma cell lines. Another focus in our research is the culturing and investigation of surrounding fibroblasts.

**Projects:** We want to establish further chordoma cell lines to test new chemotherapeutic and plant agents. We want to explore the pronounced vacuoles and vesicles in our cell line, through electron microscopy and the isolation of the vesicles.

**Resources Available:** We are specialist in cell culture and flow cytometry and very interested in any collaboration.

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### **Paola Riva, PhD**

**Primary Specialty:** Molecular Genetics

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### **Guilherme Rocha**

**Primary Specialty:** Orthopaedic

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### **Peter Rose, MD**

**Primary Specialty:** Orthopedic Surgery

**Bio:** Dr. Rose is a spine tumor surgeon at the Mayo Clinic in Rochester, Minnesota. He is trained in orthopedic surgery, spine surgery, and tumor surgery and confines his practice to oncologic processes of the spine, pelvis, and extremities.

**Interests:** Chordoma patients are a part of my clinical practice. I have a strong clinical and research interest in oncologic sacral surgery.

**Projects:** I would like to assess the quality of life outcomes for patients following oncologic resections of the spine and sacrum for chordoma and other diseases.

**Resources Available:** Tissue acquisition. Surgical consultations.

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### **Elisabeth Rushing, MD**

**Primary Specialty:** Neuropathology

**Interests:** Gain of chromosome 7 by chromogenic in situ hybridization (CISH) in chordomas is correlated to c-MET expression. Beatriz A. Walter<sup>1</sup>, Maria Begnami<sup>2</sup>, Vladimir A. Valera<sup>1</sup>, Mariarita Santi<sup>3</sup>, Elisabeth J. Rushing<sup>4</sup>, Martha Quezado<sup>1</sup>. was recently accepted for publication in J Neuro-Oncol



**Projects:** Plans are to use TMA to study molecular pathways involved in the regulation of chordoma growth

**Resources Available:** diagnostic expertise, including neuropathology support for research projects.

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## **Yardena Samuels, PhD**

**Primary Specialty:** Cancer Genetics

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## **Slim Sassi, PhD**

**Primary Specialty:** Genetics

**Bio:** I am currently working on a project to decipher complex biological systems. I will attempt to develop an approach to synergize molecular evolution and molecular biology to understand these systems. This approach will involve computational molecular evolutionary methods, high-throughput genetic screening and other classical molecular biology methods.

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## **Susanne Scheipl, MD**

**Primary Specialty:** Orthopaedics

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## **Jeffery Schlom, PhD**

**Primary Specialty:** Tumor Immunology/Immunotherapy

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## **Robert Schoelkopf, PhD (Physics)**

**Primary Specialty:** Physics

**Bio:** I am a chordoma (thoracic) survivor and a physicist. I am interested in helping in the research and treatment of chordoma. Given my own history, in which my chordoma was nearly misdiagnosed and mistreated, I am particularly interested in better educating doctors and pathologist to identify this disease better, and in referring patients to the appropriate specialists.

**Interests:** As a scientist (but not oncologist) and chordoma survivor, I am interested in learning about the latest research in understanding and treating chordoma, and in assisting in whatever way I can.

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## **Scott Schuetze, MD, PhD**

**Primary Specialty:** Medical Oncology

**Bio:** Dr. Schuetze graduated from the Oregon Health and Sciences University with degrees in medicine and molecular biology/biochemistry. After residency in internal medicine at Duke University, he attended the University of Washington/Fred Hutchinson Cancer Research Center for fellowship training in medical oncology. He was an assistant professor of medicine at the University of Washington

before accepting directorship of the connective tissue oncology program at the University of Michigan Comprehensive Cancer Center. He has devoted his medical career to treatment of patients with bone or soft tissue sarcomas and clinical research of drug therapy and imaging in sarcoma. He also serves as the medical director of the University of Michigan Cancer Center Clinical Trials Office.

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### **Joseph H. Schwab, MD, MS**

**Primary Specialty:** Orthopedic Surgeon

**Bio:** Dr. Schwab is a board certified orthopedic surgeon who received his residency training from the Mayo Clinic where he was awarded the P.J. Kelly award for outstanding basic science research. He has sub-specialty fellowship training in spine surgery from The Hospital for Special Surgery and orthopaedic oncology from Memorial Sloan Kettering Cancer Center.

Dr. Schwab earned a BA from Miami University in Oxford, Ohio majoring in Religion. He earned his MD from Chicago Medical School where he was a member of the Alpha Omega Alpha honor society, as well as a Master's degree in Clinical Pathology.

Dr. Schwab recently earned his second Master's degree from Harvard/MIT School of Health sciences and Technology as part of the Clinical Investigator Training Program (CITP). The program is designed to train young investigators in the science of translational research and clinical trials.

Dr. Schwab has an active clinical and research interest in chordomas. As part of the sarcoma service at Massachusetts General Hospital he works closely with his colleagues in orthopedic oncology, medical oncology and radiation oncology in the management of chordomas involving the sacrum and mobile spine. His research has focused on targeting Chondroitin Sulfate Proteoglycan 4 (CSPG4) in chordomas.

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### **Lori Setton, PhD**

**Primary Specialty:** Bioengineering

**Interests:** UCH1 and other cell line culture in pseudo-3D matrigel culture system.

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### **Preeti Shah, PhD**

**Primary Specialty:** Oncology

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### **Sandra Silberman, MD, PhD**

**Primary Specialty:** Medical Oncology

**Bio:** Dr. Silberman began her career in clinical development at Pfizer, Inc., initiating the Company's first programs in clinical oncology, participating in the preclinical advancement of novel oncology drug candidates, and oversaw the introduction of Tarceva™ into clinical trials. She then served as Senior Director for Novartis Clinical Research, where she led the global development of Gleevec™, a highly innovative drug and the first targeted therapy with significant impact on two diseases: chronic myelogenous leukemia and gastrointestinal stromal tumors. Dr. Silberman subsequently

joined Eisai Medical Research as the first Vice President and Global Therapeutic Area Head in Oncology, a role in which she advanced five original, compounds into Phases I through III clinical programs. Following this she served as Chief Medical Officer for Tapestry Pharmaceuticals, then Archer Biosciences, creating and implementing a global clinical trial development strategy for their proprietary oncology drug. As an independent industry consultant, Dr. Silberman has advised Bristol-Myers Squibb, AstraZeneca, Imclone, Roche, and several biotech companies in their various oncology programs from preclinical and IND to NDA submissions. She joined Quintiles in 2009 as Vice President, Oncology, in the Innovation division, overseeing drug development for new partnerships with the pharmaceutical and biotechnology industries. Dr. Silberman earned her B.A., Sc.M. and Ph.D. from the Johns Hopkins University School of Arts and Sciences, School of Public Health and School of Medicine, respectively; and her M.D. from Cornell University Medical College. She completed a fellowship in hematology/oncology at the Brigham & Women's and the Dana Farber Cancer Institute in Boston, and was an Instructor in Medicine at Harvard Medical School as well as an attending physician at Yale University Hospital. She has numerous publications and is named on several patents in the cancer drug development field. She is board certified in Internal Medicine and Hematology/Oncology.

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### **Franklin Sim, MD**

**Primary Specialty:** Orthopedic Oncology

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### **I-Mei Siu, PhD**

**Primary Specialty:** Cancer biology

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### **L Smith, PhD**

**Primary Specialty:** Immunology

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### **Josh Sommer**

**Primary Specialty:** Chordoma

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### **Silvia Stacchiotti, MD**

**Primary Specialty:** Sarcoma and Rare Tumors

**Bio:** Silvia Stacchiotti, MD, medical oncologist, works in the Adult Sarcoma Medical Oncology Unit, Istituto Nazionale Tumori, Milan, Italy, directed by dr Paolo G. Casali. Her clinical and research activities focus on rare tumors, especially adult sarcomas, including gastrointestinal stromal tumors (GIST), and uncommon histotypes such as chordoma, alveolar soft part sarcoma and PEComa. She is a member of the Italian Sarcoma Group, a national cooperative group for clinical and translational research on soft tissue and bone

sarcomas, and is a member of the EORTC Soft Tissue & Bone Sarcoma Group. She collaborates to the Italian Network on Rare Tumors, a collaborative effort among Italian cancer centers, which tries to exploit distant patient sharing in order to improve quality of care and diminish health migration

for rare solid cancers. She is a member of ESMO (European Society for Medical Oncology), Connective Tissue Oncology Society (CTOS) and of ASCO (America Society of Medical Oncology). She has authored more than 30 scientific publications on sarcoma.

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### **Patrick Tarpey, PhD**

**Primary Specialty:** Cancer Genomics

**Bio:** Following my PhD, I qualified as a Clinical Molecular Geneticist in London and Cambridge prior to moving to the Wellcome Trust Sanger Institute in 2002 to pursue a research project on X-linked mental retardation (XLMR). This project utilized high-throughput capillary sequencing to screen all genes on the X chromosome in a large cohort of males affected with XLMR. This study was the largest investigation conducted on a Mendelian disease, and resulted in the discovery of over 10 new XLMR genes (~10% of all known XLMR genes) in addition to novel genes underlying nystagmus and female-limited epilepsy. I am now focused on cancer genome research, aiming to identify the somatically acquired variants which contribute to cancer progression. We have used SureSelect exome capture and Illumina sequencing on paired tumour and normal samples, to look for the recurrently mutated genes which may represent novel cancer genes. These investigations recently lead to the identification of the *PBRM1* gene in renal cancer.

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### **William Timmer, PhD**

**Primary Specialty:** Oncology

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### **Madhura Vipra, MSc PhD**

**Primary Specialty:** Cell Biology

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### **Carmen Vleggeert-Lankamp, MD PhD**

**Primary Specialty:** Neurosurgery

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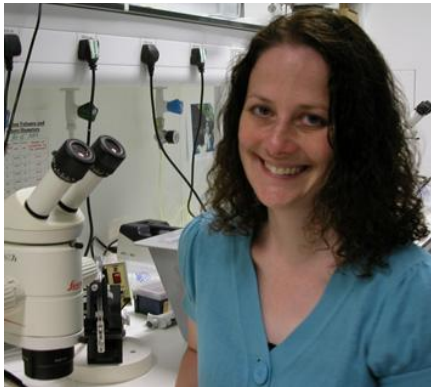


### **Liang Wang, MD**

**Primary Specialty:** Neurosurgery

**Interests:** the development of treatment in chordoma

**Projects:** set up the cell line or establish the xenograft model



### **Fiona Wardle, PhD**

**Primary Specialty:** Embryonic Development

**Bio:** Fiona Wardle currently holds an MRC Career Development Award and a Lister Institute Fellowship at the Randall Division, King's College London, where she studies transcriptional regulation of early embryonic development. Fiona graduated with a BA (Hons) in Natural Sciences from Cambridge University, then moved to University College London to study for a PhD in Developmental Biology. Fiona gained her PhD in 1998 and in early 1999 moved to the Whitehead Institute, MIT,

Cambridge, USA for postdoctoral training. She was awarded a Sokol Fellowship in 2001. In 2002 Fiona moved back to Cambridge University to the Gurdon Institute where she continued to study early embryonic development. During this time Fiona also initiated a project to investigate the transcriptional networks that pattern the early embryo and established the technique of chromatin immunoprecipitation combined with genomic microarrays (ChIP-chip) in zebrafish embryos. In 2007 Fiona moved to the Department of Physiology, Development and Neuroscience at Cambridge University to establish her own lab, before moving the lab to the Randall Division at King's College London in 2010.

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### **Vicky Whittemore, PhD**

**Primary Specialty:** Non-Profit

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### **Edward Winstead**

**Primary Specialty:** Science Writing

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### **Zhen Wu, MD**

**Primary Specialty:** Skull Base Neurosurgery

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### **Xinru Xiao, MD**

**Primary Specialty:** Neurosurgery

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### **Yoshiya Yamada, MD FRCP**

**Primary Specialty:** Radiation Oncology

**Bio:** Member of the spine oncology team at MSKCC

**Interests:** The use of high dose stereotactic radiosurgery for chordomas of the spine, preliminary results are very encouraging. Low toxicity and radiographic rapid responses.

**Projects:** Multi center prospective study of preoperative spine radiosurgery

**Resources Available:** Spine radiosurgery, spine dural brachytherapy, high dose rate spine brachytherapy, image guided radiation

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## Takehiko Yamaguchi, MD, PhD

**Primary Specialty:** Pathology

**Bio:**

2008- Associate Prof., Depart. of Pathology, Jichi Medical University

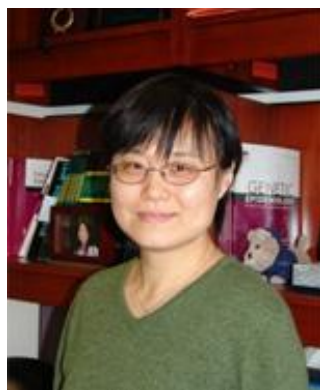
2005-2008 Associated Prof., Depart. of Surgical Pathology, Sapporo Medical University

2002-2005 Assistant Prof., Depart. of Pathology, Koshigaya Hospital, Dokkyo Medical University

**Interests:** Benign notochordal cell tumor (BNCT) as a precursor of chordoma

Transformation mechanism of chordoma from BNCT

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## Rose Yang, PhD, MPH

**Primary Specialty:** Genetic Epidemiology

**Bio:** Dr. Yang received a Ph.D. in physiology from the Lombardi Cancer Center, Georgetown University in 1999 and a M.P.H. in epidemiology from Johns Hopkins University School of Public Health in 2003. She joined the Genetic Epidemiology Branch (GEB) in 2000 as a fellow, and became a tenure track investigator in 2006. Her research interests include the genetics of familial cutaneous malignant melanoma/dysplastic nevi syndrome and molecular heterogeneity of breast cancer.

**Interests:** Identifying susceptibility genes for familial cancers including cutaneous malignant melanoma/dysplastic nevi syndrome, chordoma, and nasopharyngeal carcinoma using genetic linkage and association analyses. Assessing etiologic heterogeneity of breast cancer using Tissue Microarray analysis of molecular markers involved in hormone-mediated pathways.

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## Michael Yaszemski, MD, PhD

**Primary Specialty:** Orthopedic Spine Surgery

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## **Stephen Yip, MD, PhD**

**Primary Specialty:** Neuropathology

**Bio:** I obtained my combined M.D.-Ph.D. degree at University of British Columbia and was accepted into the neurosurgery residency program at Vancouver General Hospital and completed four years of surgical training before switching to the neuropathology program and obtained my FRCPC certification in 2006. Next, I completed two years of Royal College-funded research fellowship in molecular neuro-oncology at the Massachusetts General Hospital under the supervision of David Louis. My research was on the molecular characterization of recurrent

glioblastomas specifically somatic mutations in the mismatch repair gene MSH6. I then completed fellowship training in molecular genetics pathology at Harvard Medical School under the supervision of John Iafrate at MGH.

I returned to Vancouver in 2009 and am physically located at BCCA Vancouver Cancer Centre. My clinical duties consist of clinical molecular diagnostics and neuropathology signouts. I am also affiliated with the Centre for Translational and Applied Genomics (CTAG) and am involved in the developments of novel molecular diagnostic assays. CTAG has a variety of advanced molecular diagnostics instruments including Affymetrix array fluidic station, NANOSTRING, access to 454FLX sequencer and soon to acquire an Ion Torrent sequencer.

My research interests are in the genomic and epigenomic profiling of cancers especially primary brain tumours, taking advantage of the local expertise and resources at the Genome Sciences Centre or GSC. Currently I am using 2nd generation sequencing technology to study oligodendroglioma, ependymoma, and chordoma. Ultimately I want to take novel genomic/epigenomic discoveries to the clinic – by developing clinical molecular assays that can be used to better prognosticate patients and to identify those that might respond to novel molecular targeting agents. I am also associated with the development of BrainCare, a local effort to develop multidisciplinary seamless care for brain tumour patients (including chordomas) in British Columbia and also in the establishment of a local neuro-oncology research network which includes the development of a brain tumour tissue bank.

I strongly believe in the integration of molecular genetics with clinical pathology and the rapid translation of cancer genomic discoveries in medicine.



## **Jianjian Zhu, MD, PhD**

**Primary Specialty:** Developmental Biology

**Bio:** Education: 1998-2001 Ph.D. in Life Science, Peking University Health Science Center, P.R.China, Thesis advisor: Prof. Jian Tang and Guoying Zhu 1991-1998 M.D. and B.S. joint program, Shandong Medical University, P.R.China (1991-1993 Department of Biology, Shandong University, P.R. China)

**Professional Experience:** 2011- Staff Scientist, Mackem Laboratory, Regulation of Vertebrate Morphogenesis Section, Cancer and Developmental Biology Lab./Lab. of Pathology, CCR, NCI, NIH. 2002-2010 Postdoctoral and Research Fellow, Mackem Laboratory, Regulation of Vertebrate Morphogenesis Section, Cancer and

Developmental Biology Lab./Lab. of Pathology, CCR, NCI, NIH. 2001-2002 Postdoctoral Fellow, Prof. Jian Tang Laboratory, Institute of Cardiovascular Science, Peking University Health Science Center, China.

**Awards:** Apr., 2009 Poster Presentation Winner, NCI-Frederick 2009 Spring Research Festival  
Aug., 2006 Fellows Award for Research Excellence (FARE) 2007 Award, National Institutes of Health (competitive award given to NIH fellows for excellence in basic or clinical research accomplishments)  
May, 2000 Guanghua scholarship, Peking University Health Science Center, China (competitive award given to graduate students for excellence in academic and research accomplishments)

**Professional Societies and Honors:** Full Member of Sigma Xi (election based on original, noteworthy scientific achievement), Active Member of American Association for Cancer Research (nominated by two senior scientists), Society for Developmental Biology (SDB), International Union Against Cancer (UICC)'s Association of UICC Fellows (AUF)

**Professional Activities:** Independently solicited reviewer: Developmental Dynamics, Mechanisms of Development

Ad hoc poster reviewer for Annual Biomedical Research Conference for Minority Students (ABRCMS) sponsored by American Society for Microbiology in 2007 through 2010

Chief Judge for FARE 2011 Award Competition (Gene Therapy study section)

Lead Judge for Graduate Student Award in the 7th Annual Graduate Student Research Symposium at NIH, 2011

Judge for Graduate Student Award in the 5th Annual Graduate Student Research Symposium at NIH, 2008

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## Peter Moeller, MD

**Primary Specialty:** Pathology

**Bio:**

1978-1995 Post-Doctoral Position (Associate Doctor), Institute of Pathology, University of Heidelberg, Germany

1995-present Full Professor & Chair of Pathology and Director of the Institute of Pathology, Medical Faculty and University Clinics of the Ulm University (Germany)

Honors & Awards, Special Expertise in the Field of Lymphoma or Genomics: 1986 K.H.-Bauer Award for Description of Primary Mediastinal B Cell Lymphoma

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## Gary Gallia, MD

**Bio:** Dr. Gallia is an Assistant Professor of Neurosurgery and Oncology and the Director of Endoscopic and Minimally Invasive Neurosurgery at Johns Hopkins. Dr. Gallia's specialty is endoscopic endonasal surgical approaches to skull base pathologies with a focus on neurosurgical oncology. He utilizes the latest techniques in preoperative imaging, computer guided surgical navigation, intraoperative monitoring and minimally invasive and neuroendoscopic approaches in the

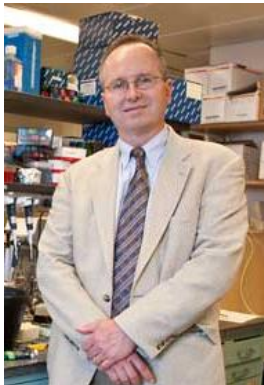


management of patients with benign and malignant brain tumors, metastatic tumors to the brain, skull base neoplasms and pituitary tumors.

Dr. Gallia's primary research interests are in the development of novel therapeutics against malignant brain and skull base tumors, outcomes following endonasal endoscopic skull base surgery and development of next generation intraoperative endoscopic platforms.

Dr. Gallia graduated summa cum laude from the Gibbons Scholar MD/PhD program at Jefferson Medical College and Thomas Jefferson University. He completed his general surgery internship at Johns Hopkins Hospital where he was awarded surgical intern of the year. He then completed his neurological surgery residency and a postdoctoral fellowship in neuro-oncology at Johns Hopkins Hospital. Following residency, he completed a minimally invasive and endoscopic neurosurgery fellowship with Dr. Charles Teo at the Prince of Wales Private Hospital and Sydney Children's Hospital in Sydney, Australia.

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### **Francis Hornicek, MD, PhD**

**Bio:** Dr. Francis Hornicek is Chief of the Orthopaedic Oncology Unit at Massachusetts General Hospital and an Associate Professor in the Department of Orthopaedic Surgery at Harvard Medical School. Dr. Hornicek received his M.D. from the University of Pittsburgh School of Medicine and his Ph.D. from Georgetown University School of Medicine

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