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Steven Gitelis, MD

The Rush University Professorship of Orthopedic Oncology

Advancement of Medicine

We are pleased to report that the orthopedic oncology endowment has gone to great use in calendar year 2024. We



have utilized the endowed funds for academic and research advancements as well as improvements in our oncology section as you will see highlighted below. Your support has been critical to our success.

Research

The orthopedic oncology group published more than 20 articles advancing our understanding of disease as well as our approach to treatments. In addition, we had more than 10 national and international presentations highlighting our early, soon-to-be-published data on groundbreaking advances. This was accomplished with the assistance of nearly \$10,000 to date from the endowment. By the end of 2024 we utilized another \$7,500 for ongoing projects in need of funding for travel/planning for presentations, journal submissions and publication fees. Rush orthopedic oncology is synonymous with excellence in research and clinical care in large part due to the funds supporting our research projects. At academic meetings, Rush is always amongst the most active departments showcasing new, exciting clinical research.

Orthopedic Department Support

One of our orthopedic oncology surgeon leaders, Alan Blank, MD, who is a leader in orthopedic oncology research as well as clinical care, has been encouraged by leaders across Rush University System for Health to pursue his MBA. He is completing this degree remotely at Johns Hopkins University. This degree will certainly benefit the section as the enhanced leadership abilities gained through the program will improve the functionality of our clinical care as well as research in



orthopedic oncology. This professional development and program development activity will be funded with a \$10,000 per year scholarship by JHU in addition to support by the institution and this endowment. In FY25 approximately \$1,000 from the endowment went to support his studies.

The orthopedic oncology endowment also allocated \$35,000 to bolster the orthopedic department's mission including a department administrator, facilities and general support. We are pleased to announce that our section is growing: One of our former residents will join us in September 2025 as a new attending in orthopedic oncology. **Michael Fice, MD**, completed his residency in orthopedic surgery at Rush is finishing one of the most prestigious orthopedic oncology fellowships in the country at the University of California, Los Angeles, or UCLA. We are honored to have him back. Our orthopedic department uses funds from the endowment to help support our orthopedic oncology section in countless ways, including attracting and retaining top talent and setting them up for success.

Finally, the orthopedic oncology section plans to host a team building activity for staff, residents and fellow. This event will use funds from the endowment. The hope is the event will build team morale and engagements. We will likely have a journal club type activity involving education and discussions on research.

Clinical Trials

In FY25, \$20,000 from the orthopedic oncology endowment will fund clinical trials in sarcoma, including support staff in the sarcoma research group. This funding is currently supporting a clinical research nurse as well as a clinical research coordinator. These funds allow us to continue to grow the number of clinical trials we can offer our patients.

National and International Presentations

- Development and External Validation of a machine learning model for prediction of survival in extremity leiomyosarcoma. AAOS 2024. Poster. San Francisco.
- Does Perioperative radiation affect implant survivorship of primary total hip arthroplasty in the setting of metastatic bone disease. A multicenter study. Poster. AAOS 2024. San Francisco.

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- The Effect of Timing between preoperative embolization and surgery: A retrospective analysis of hypervascular bone metastases. Podium. MAOA 2024. Florida
- Effectiveness of Interventional Radiology Guided Procedures for Locally Recurrent and Metastatic Sarcoma: Single Institutional Results. Podium. MAOA 2024. Florida
- Evaluation of Local Recurrence and Diagnostic Discordance in Chondrosarcoma Patients
 Undergoing Preoperative Biopsy. Podium. MAOA 2024. Florida
- Opioid use in impending versus pathologic proximal femur fractures. ASCO. eposter. Chicago
 June 2024
- Characterizing the transformation and diagnosis of atypical lipomatous tumors to dedifferentiated liposarcoma: Single-institutional outcomes. ASCO. eposter. Chicago June 2024
- REcovery of Patient-reported outcomes After Intervention for extRremity MBD (REPAIR): A Preliminary Report on an Ongoing Multi-center Trial for Patients Undergoing Surgical Stabilization for Metastatic Bone Disease of the Femur. Podium. 2024 Annual Meeting, Musculoskeletal Tumor Society, Chicago, IL. September 2024.
- Outcomes of Distal Femoral Replacement vs Internal Fixation for Metastatic Bone Diseases.
 Poster. 2024 Annual Meeting, Musculoskeletal Tumor Society, Chicago, IL. September 2024.
- Opioid Use in Impending Versus Pathologic Proximal Femur Fractures. Poster. 2024 Annual Meeting, Musculoskeletal Tumor Society, Chicago, IL. September 2024.
- Characterizing the Transformation and Diagnosis of Atypical Lipomatous Tumors to Dedifferentiated Liposarcoma: Single Institutional Outcomes. Poster. 2024 Annual Meeting, Musculoskeletal Tumor Society, Chicago, IL. September 2024.
- The Impact of Positive Margin Chondrosarcoma and Extraosseous Extension on Patient Outcomes. Poster. 2024 Annual Meeting, Musculoskeletal Tumor Society, Chicago, IL.
 September 2024.



Publication Highlights — Abbreviated

- Tepper S, Lee L, Kassono L, Vijayakumar G, Colman MW, Gitelis S, Blank AT. Hip Arthroplasty Outcomes in Patients with Metastatic Bone Disease. Orthopedic Reviews. 16 (2024)
- Yu A, Lee L, Yi T, Fice M, Tepper S, Colman MW, Blank AT. Development and External Validation of a machine learning model fro prediction of survival in extremity Leiomyosarcmoa. Surgical Oncology. (2024): 102057
- Acuna A, Vijayakumar G, Buac N, Colman MW, Gitelis M, Blank AT. The Effect of Timing between preoperative embolization and surgery: A retrospective analysis of hypervascular bone metastases. Journal of Surg Onc. 129.2(2024) 416-423
- Buac N, Lee L, Gusho C, Blank AT. Intra-Articular Nodular Fasciitis of the Knee, A Rare Clinical Presentation and Histological Diagnosis: A Case Report. Orthopedic Reviews. 16(2024)
- Perez-Alvarez, Idanis, Adrian Markewych, Austin Yu, Alan T. Blank, Steven Gitelis, and David
 E. Kurlander. "Advances in Functional Reconstruction After Bony Sarcoma Resection."
 Current Surgery Reports 12, no. 7 (2024): 173-185
- Kasson L, Vijayakumar G, Lee L, Gusho C, Miller I, Blank AT. An Unusual Case of Clear Cell Chondrosarcoma with Early Metastatic Recurrence. International Journal f Surgical Pathology. (2024) 10668969231225774
- Richards AR, Vijayakumar G, Braun A, Gitelis S, Blank AT. Myoepithelial Carcinoma of Soft
 Tissue:" Report of two cases. JBJS Case Connector. 14.2(2024) e23
- Blank AT, Fice M. Challenges in the Management of Complex Soft-Tissue Sarcoma Clinical Scenarios. JAAOS Journal of the American Academy of Orthopedic Surgeons. 32.3(2024): e115-e124
- Lee L, Yi T, Fice M, Achar RK, Jones C, Klein E, Buac N, Lopez-Hisijos N, Colman MW, Gitelis S, Blank AT. Development and external validation of a machine learning model for prediction of survival in undifferentiated pleomorphic sarcoma. Musculoskelet Surg. 2024 Mar;108(1):77-86. doi: 10.1007/s12306-023-00795-w. Epub 2023 Sep 1. PMID: 37658174.

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The Year Ahead: 2025 and Beyond

Under our new leadership, the Musculoskeletal Oncology Program will continue to strive for excellence in patient care, research and education.

With Gratitude

Thank you for enabling our research efforts. Your generous support is critical to the success of our program and patient outcomes.