Since 2017, the OutSmarting Osteosarcoma annual research grant program has supported 18 investigators and awarded $1,550,000 to support osteosarcoma research.

**Career Development Support**

$50,000 grant over one year to support young investigators studying osteosarcoma

**Focus on Late Stage Translational Studies**

$100,000 grant over one year to any investigator with a study that will focus on late-stage translational studies

**Partners Collaborating for a Cure**

Partners with foundations focused on fundraising for osteosarcoma or pediatric cancer research, but do not have a research grant program

**Robust Review Process**

Our two tier-review process consists of independent peer review and stakeholder review that uniquely incorporates patient and family perspective

**Family Funds Supporting Science**

Collaboration among the scientific and patient community is a key hallmark of MIB Agents

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**OUTSMARTING BY THE NUMBERS**

18 investigators and studies supported

$1,550,000 awarded since 2017

8 funding collaborations

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OutSmarting Osteosarcoma Research has led to:

- **10** publications shared in public domain
- **7** clinical trials
- **$11.5 million** secured in funding
- **78** presentations shared with the scientific community
**2023**

**Robert J. Canter, MD** University of California, Davis
*Inhaled canine IL-15 to maximize immunotherapy responses in dogs with metastatic osteosarcoma.*

**Ryan D. Roberts, MD, PhD** The Abigail Wexner Research Institute at Nationwide Children's Hospital
*Combination therapies targeting heterogeneity and lung environment in metastatic osteosarcoma.*

**Shahab Asgharzadeh, MD** Children's Hospital Los Angeles
*will study the Identification of circulating immune signature as a biomarker of disease response and resistance in patients with relapsed osteosarcoma treated with nivolumab and regorafenib.*

**Sam Volchenboum, MD, PhD** University of Chicago
*Data commons to support new treatments for osteosarcoma.*

**Heather Gardner, DVM, PhD, DACVIM (Oncology)** Tufts University
*Liquid biopsy platforms to support early detection of metastasis and inform future interventions in osteosarcoma.*

**Amanda Marinoff, MD** University of California, San Francisco
*Novel molecular biomarkers for risk stratification in pediatric osteosarcoma.*

**Marta Roman Moreno, PhD** University of California, San Francisco
*CRISPRi screening to identify vulnerabilities in metastatic osteosarcoma.*

**2022**

**Kristen VanHeyst, DO** UH Rainbow Babies and Children’s Hospital
*Modulating TGF-beta Signaling in the tumor microenvironment as an effective therapy for osteosarcoma.*

**John Ligon, MD** University of Florida
*RNA-nanoparticle vaccines to overcome the immunosuppressive tumor microenvironment of canine osteosarcoma*

**Eunice Lopez-Fuentes, PhD** University of California, San Francisco
*Two epigenetically distinct cellular states in osteosarcoma, defined by a cluster-specific set of pioneer transcription factors and show differential drug response.*

**2021**

**Kurt Weiss, MD** University of Pittsburgh School of Medicine
*Exploring Aldehyde Dehydrogenase and Androgen Receptor Actions to OutSmart Osteosarcoma Metastases.*

**2020**

**J. Andrew Livingston, MD** University of Texas MD Anderson Cancer Center
*Defining the Immune Atlas in Osteosarcoma Lung Metastases.*

**2019**

**Alex Y. Huang, MD, PhD** Case Western Reserve University / Angie Fowler AYA Cancer Institute Initiative
*New Immune-mediated Therapies for Lung OS.*

**2018**

**Matteo Trucco, MD** Cleveland Clinic
*Clinical trial of disulfiram to overcome chemotherapy resistance in sarcomas.*

**2017**

**Joshua Schiffman, MD** University of Utah
*EP53 Nanoparticle Development*