



**Arnie Charbonneau Cancer Institute**  
Integrated Sarcoma  
Research Program



UNIVERSITY OF  
CALGARY

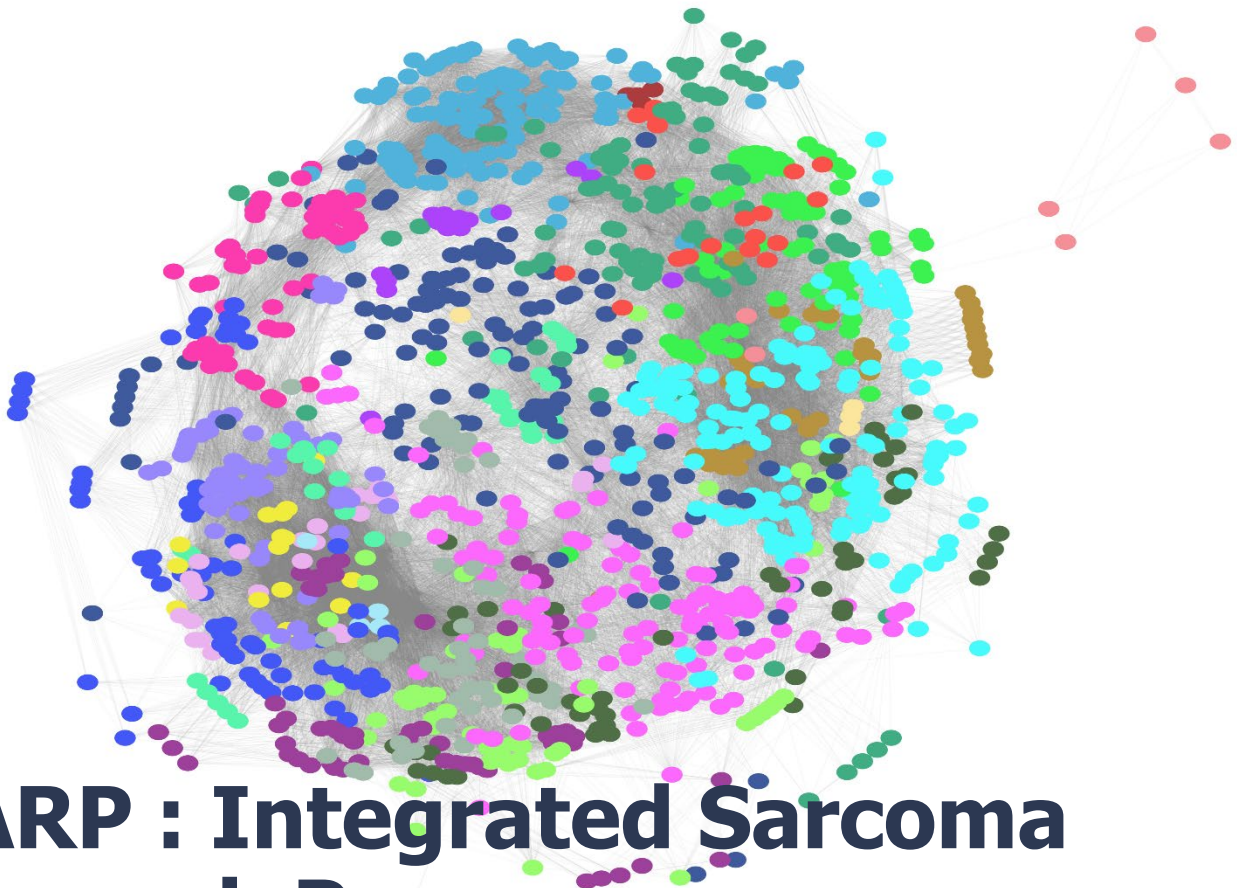


Alberta Health  
Services

December 2024

# PROGRESS

## REPORT



**iSARP : Integrated Sarcoma  
Research Program**

# TABLE OF CONTENTS

|                                                                                          |           |
|------------------------------------------------------------------------------------------|-----------|
| <b>OVERVIEW.....</b>                                                                     | <b>3</b>  |
| <b>iSARP STRATEGIC PRIORITIES.....</b>                                                   | <b>4</b>  |
| <b>iSARP GOVERNANCE.....</b>                                                             | <b>4</b>  |
| <b>iSARP HIGHLIGHTS.....</b>                                                             | <b>5</b>  |
| <b>1. iSARP MILESTONES.....</b>                                                          | <b>6</b>  |
| 1. Terry Fox Marathon Of Hope Cancer Centres Network: Prairies Sarcoma Cohort.....       | 6         |
| 2. Growth in Sarcoma Research.....                                                       | 6         |
| 3. Sarcoma and Musculoskeletal Tumour Banking.....                                       | 6         |
| 4. Partnership: Alberta Cancer Research Biobank (ACRB) and the University of Alberta.... | 7         |
| 5. Alberta Sarcoma Clinical Database.....                                                | 7         |
| 6. Clinical Trials.....                                                                  | 7         |
| 7. Sarcoma Clinical Trials .....                                                         | 8         |
| 1. <i>Active or planned</i> .....                                                        | 8         |
| 2. <i>Complete</i> .....                                                                 | 8         |
| <b>1. CanSaRCC (The Canadian Sarcoma Research and Clinical Collaboration) .....</b>      | <b>9</b>  |
| 1. <i>Collaborative CanSaRCC Projects</i> .....                                          | 9         |
| <b>1. SmART+ Image-Guided Radiation Research Platform.....</b>                           | <b>10</b> |
| <b>2. Sarcoma Research Grants (2022-2024) .....</b>                                      | <b>11</b> |
| 1. <i>Active Grants</i> .....                                                            | 11        |
| 2. <i>Grants Under Review</i> .....                                                      | 13        |
| <b>1. Sarcoma Training and Education.....</b>                                            | <b>14</b> |
| 1. <i>Active Trainees</i> .....                                                          | 14        |
| 2. <i>Alumni Trainees</i> .....                                                          | 17        |
| <b>1. iSARP Peer Reviewed Publications.....</b>                                          | <b>18</b> |
| 1. <i>2024</i> .....                                                                     | 18        |
| 2. <i>2023</i> .....                                                                     | 18        |
| 3. <i>2022</i> .....                                                                     | 20        |
| <b>1. iSARP Conference and Sub-Specialty Society Presentations.....</b>                  | <b>21</b> |
| 1. <i>2024</i> .....                                                                     | 21        |
| 2. <i>2023</i> .....                                                                     | 22        |
| 3. <i>2022</i> .....                                                                     | 23        |
| <b>1. Graduate Thesis.....</b>                                                           | <b>24</b> |
| <b>2. Appendix.....</b>                                                                  | <b>24</b> |
| 1. <i>I: iSARP Active Team Members</i> .....                                             | 25        |
| 2. <i>II: iSARP Annual Operations Budget</i> .....                                       | 28        |



## OVERVIEW

Sarcomas are connective tissue (bone, muscle, fat) derived cancers that afflict children and adults. Sarcomas are high fatality cancers that disproportionately account for 10-15% of solid malignancies in pediatric and young adults. Relative to other cancers, therapeutic advances for sarcomas are lagging. There is a pressing need for more sarcoma research to understand disease biology, discover new therapies, and to improve outcomes for patients. In response to these needs, the integrated Sarcoma Research Program - iSARP was established in 2022. This integrated sarcoma research and clinical program is a made-in-Alberta initiative with a vision to enable more clinical trials and improve therapeutic opportunities, survival, and patient-oriented outcomes for sarcoma patients in Alberta.

## iSARP STRATEGIC PRIORITIES:

- Increased clinical trial infrastructure and opportunities for Alberta sarcoma patients.
- Provincial sarcoma tumour banking and cryopreservation.
- Multi-omic molecular profiling of prospective bone and soft tissue sarcomas
- Patient specific sarcoma 'molecular report cards' highlighting targetable mutations and immunotherapy susceptibilities.
- Education and training of the next generation of sarcoma scientists and clinicians.
- Pre-clinical sarcoma research: immune competent mouse models, immunotherapy, radio immunotherapy, advanced tumor imaging.

## iSARP GOVERNANCE:

- iSARP has built a diverse team of over 35 members including sarcoma surgeons, medical oncologists, radiation oncologists, pediatric oncologists, pathologists, PhD scientists, trainees, and operations staff (Appendix II).
- iSARP has established an advisory committee responsible for program oversight. The committee evaluates the performance of the program, reviews and monitors progress, and advocates for advancement of the program.
- iSARP is a recognized program with established terms of reference, organizational structure, and is supported by the Arnie Charbonneau Cancer Institute and McCaig Institute for Bone and Joint Research, within the University of Calgary, Cumming School of Medicine.

## iSARP HIGHLIGHTS:



Multi-omic sequencing of 134 sarcomas via the Terry Fox MOHCCN program.



Partnership with CanSaRRC in support of national sarcoma collaborative research.



Acquisition of the Precision X-ray SmART+ image-guided radiation platform.



Year over year growth of accepted University of Calgary/iSARP abstracts to subspecialty sarcoma research conferences.



Partnership with ACRB to support provincial (Calgary & Edmonton) sarcoma tumor banking and cryopreservation.



Collaborative iSARP research grant applications.



iSARP members have been awarded over \$4M in additional sarcoma research funding.



Collective year over year growth of sarcoma-related research projects.



Increasing participation in sarcoma-specific clinical trials at the TBCC/ACCC.



## iSARP MILESTONES:

JANUARY 2022 - NOVEMBER 2024



### **Terry Fox Marathon Of Hope Cancer Centres Network: *Prairies Sarcoma Cohort***

Leveraging funds from iSARP and the Riddell Centre for Cancer Immunotherapy, we have partnered with the Terry Fox Marathon of Hope Cancer Centres Network (MOHCCN) national program to perform comprehensive genetic and molecular profiling of high-risk bone and soft tissue sarcomas treated in southern Alberta. With this initiative we are generating one of the most comprehensive, publicly available sarcoma data cohorts in the world linking molecular profiles to clinical treatments and outcome data. Locally, in collaboration with the iSARP computational biology team, we are developing precision oncology patient specific molecular report cards to identify targeted therapy and immunotherapy susceptibilities for patients with relapsed or metastatic sarcoma.

***iSARP Leads: Monument/Morrissy/Chan***



### **Growth in Sarcoma Research**

We have witnessed considerable growth and productivity in sarcoma research at the University of Calgary over the past 5 years. Through increased disease awareness and improved access to pre-clinical models, patient samples and new technology, iSARP is building a program of multidisciplinary sarcoma research excellence at the University of Calgary.



### **Sarcoma and Musculoskeletal Tumour Banking:**

iSARP enrolls patients both prospectively and retrospectively into the Clark Smith Tumour Bank permitting access to neoplastic tissue samples (biopsies, surgeries, relapses) and matched genomic control (blood or muscle) for molecular profiling, data collection, and national collaboration with other Canadian sarcoma centres.

In collaboration with FMC Interventional Radiology, iSARP has developed a workflow for tumour banking of sarcoma biopsies. This unique program within iSARP will enable our researchers to study the evolution of a patients' sarcoma across the cancer treatment continuum (biopsy, radiation/chemotherapy, surgery, relapse).

***iSARP Leads: Monument/Ezeonyeka/Chan***

To date, we have cryopreserved 288 unique sarcoma samples from 276 patients diagnosed with sarcoma in southern Alberta.





## Partnership: Alberta Cancer Research Biobank (ACRB) and the University of Alberta

iSARP has partnered with the ACRB to capture more sarcoma samples for MOHCCN sequencing efforts. This partnership will enable sarcoma cryopreservation from Edmonton sarcoma surgeries (Royal Alexandra Hospital and the Misericordia Community Hospital) and will increase sample allocation for MOHCC sequencing starting in Y4 (2024).

***iSARP Leads: Monument/Morriissy/Simonot***



## Alberta Sarcoma Clinical Database:

We have built a cloud-based sarcoma database to document all patients diagnosed and treated with sarcoma in Alberta. This database includes 274 unique clinical data fields and is used to link clinical data with tumor banking and molecular data.



We have registered over 700 patients into iSARP sarcoma database.



All prospective sarcoma patients are enrolled. An additional 2,200 Alberta sarcoma patients (2010-2021) identified by the Alberta Cancer Registry are being retrospectively registered.



***iSARP Leads: Monument/Ezeonyeka/Faruq***



## Clinical Trials

Increased participation and leadership in **sarcoma clinical trials** is a major strategic priority of iSARP. Enrolment and execution of multicentre sarcoma clinical trials will grow and establish our reputation of sarcoma clinical trial competence at the University of Calgary. Establishing a reputation clinical trial competence and excellence will enable more pharma partnerships and enable more investigator-initiated trials.

***iSARP Leads: Henning/Feng/Khan***

# Sarcoma Clinical Trials (Active or Planned)

- **TARGET TRIAL:** Emactuzumab for Tenosynovial Giant Cell Tumor (TGCT)
  - ▶ Sponsor: SynOx Therapeutics Limited
  - ▶ Open (Dec 2024)
- **CHONQUER TRIAL:** Ivosidenib for Locally Advanced or Metastatic Conventional Chondrosarcoma
  - ▶ Sponsor: Servier Bio-Innovation LLC
  - ▶ Open (Oct 2024)
- **Single Patient Study (SPS):** SPS Q-1 for GCAR-1 for Unresectable ASPS
  - ▶ Sponsor: Riddell Centre for Cancer Immunotherapy, CRU, ACF
  - ▶ Ongoing/Open
- **SRC8:** RCT of Doxorubicin + Pembrolizumab vs. Doxorubicin Alone for the Treatment of Poorly Differentiated Sarcomas
  - ▶ Sponsor: NCI, CCTG
  - ▶ Planned (Open, Q1 2025)
- **Phase I Feasibility and Safety Trial CART-cell Therapy for Patients with GPNMB-Expressing Solid Tumors**
  - ▶ Sponsor: CCTG, CIHR
  - ▶ Planned (Open, Q1 2025 in Calgary, lead site)
- **INSIGHT:** Ripretinib vs. Sunitinib in Advanced GIST with KIT exon 11 + 17/18 mutations
  - ▶ Sponsor: Decipher Pharmaceuticals, LLC
  - ▶ Planned (Open Q1 2025)



# Sarcoma Clinical Trials (Complete)

- **BRIGTLINE 3 TRIAL:** BI 907828 for MDM2 Amplified Sarcomas
  - ▶ Sponsor: Boehringer Ingelheim
  - ▶ Closed (July 2024)
- **PEAK:** Phase 3 Trial of CGT9486+Sunitinib vs. Sunitinib Alone for Gastrointestinal Stromal Tumors (GIST)
  - ▶ Sponsor: Cogen Biosciences, Inc.
  - ▶ Closed (July 2024)



**CanSaRCC**

Canadian Sarcoma Research and  
Clinical Collaboration



**Stimulating Outstanding  
Collaborations Between  
Clinicians And Scientists  
To Improve The Outcome  
of Sarcoma Patients**



# CanSaRCC (The Canadian Sarcoma Research and Clinical Collaboration)

CanSaRCC is a national clinical database and virtual biobank of sarcoma patients. All major sarcoma centres across Canada now participate in this program. This collaboration enables national collaborative research to foster novel insights into sarcoma biology, clinical outcomes, disparities in treatment protocols across Canadian health jurisdictions, and supports the design new clinical trials. This project seeks to overcome the challenges associated with studying rare sarcoma subtypes in academic silos. **We have enrolled 267 patients collaboratively with CanSaRCC**

## **Collaborative CanSaRCC Projects:**

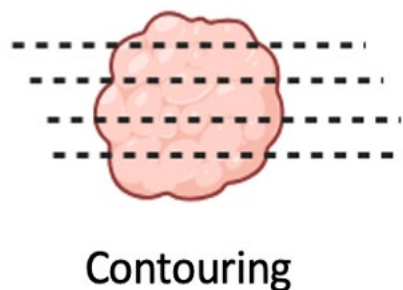
- Immune Signature and Molecular Profiling of Epithelioid Hemangioendothelioma.
- Practice Patterns and Clinical Outcomes in Pediatric and Adult Patients with Ewing Sarcoma and other Round Blue Cell Sarcomas.
- Real-world Experience of Pazopanib and Sorafenib in Patients with Desmoid Tumors.
- Real-world Experience of Tyrosine Kinase Inhibitors in Children, Adolescents, and Adults with Relapsed or Refractory Bone Tumors.
- Genetic Analysis of Adult Rhabdomyosarcoma.



## SmART+ Image-Guided Radiation Research Platform

Supported by a 2022 CFI JELF Award, iSARP has acquired a \$1M CAD pre-clinical radiation platform capable of micro-CT imaging and delivery of clinical grade, image guided radiation. This technology will enable in vivo micro-CT imaging and high throughput radiation and radio-immunotherapy research initiatives at the University of Calgary. SmART+ was installed Sept 2024 and is now operational.

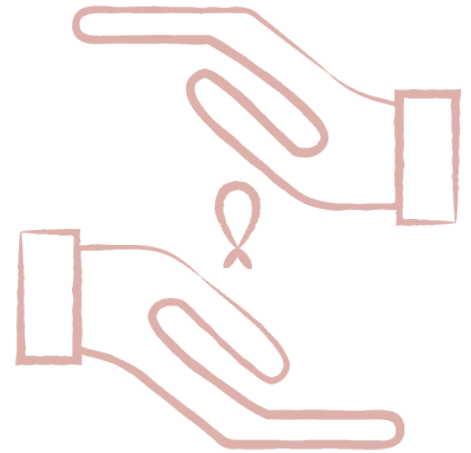
***iSARP Lead: Monument/Singla***



# Sarcoma Research

## Grants (2022-2024) :

Since inception, iSARP researchers have been awarded over \$4M in peer-reviewed research grants to support sarcoma research, key infrastructure, and clinical trials. These research grants leverage existing iSARP financial support, personnel, and infrastructure to recruit additional research dollars into our sarcoma program.



## ACTIVE GRANTS

**Project Title:** Biomechanical Impact of an Actuated Knee Orthosis on Patients

Undergoing Proximal Tibial Reconstruction

**Funding Source:** SPARC Ignite Grant (McCaig Institute)

**iSARP Investigators:** Kendal (co-applicant); Monument (collaborator) **Dates:** 2024-2025

**Funding Amount:** \$20,000/year

---

**Project Title:** *Harnessing STING activation for the treatment of sarcoma.*

**Funding Source:** Canadian Institutes of Health Research (CIHR)

**iSARP Investigators:** Monument (PI); Jirik (co-applicant)

**Dates:** 2021-2026

**Funding Amount:** \$214,200/year

---

**Project Title:** *Evaluating the Implementation, Utility, and Clinical Importance of the Patient-Reported Outcome Measure Information System (PROMIS) in Sarcoma Patients: A Multi-Centred Prospective Cohort Study*

**Funding Source:** AAOS Specialty Society Research Support Fund iSARP

**Investigators:** Kendal (co-applicant); Monument (collaborator)

**Dates:** 2024-2025

**Funding Amount:** \$50,000/year

---

**Project Title:** *Therapeutic synergy of surgery, radiation, and STING immunotherapy in pre clinical models of sarcoma.*

**Funding Source:** Canada Foundation for Innovation (CFI)

**iSARP Investigator:** Monument (PI)

**Dates:** 2023-2025

**Funding Amount:** \$800,000

---

**Project Title:** *Precision target discovery in high-risk soft tissue sarcoma.*

**Funding Source:** Terry Fox Research Institute (TFRI); Prairie Cancer Research Consortium (PR2C) Marathon of Hope Cancer Centre Network

**iSARP Investigators:** Morrissy (co-PI); Monument (co-PI); Henning (collaborator); Chan (collaborator) **Dates:** 2022-2025

**Funding Amount:** ~\$250,000/year

---

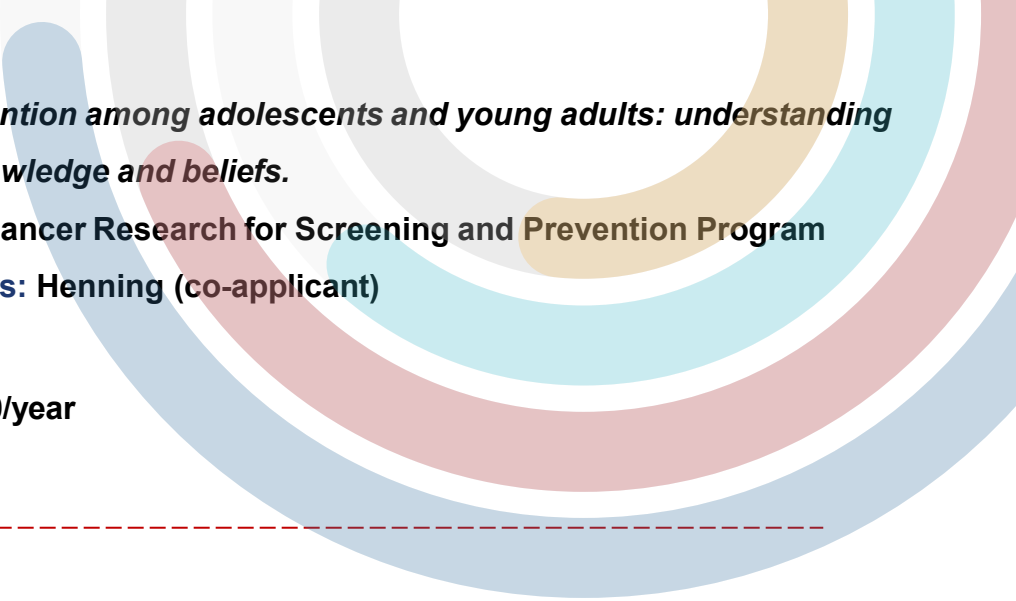
**Project Title:** *Phase 1 feasibility and safety study on G-CARJ, a Chimeric Antigen Receptor (CAR) T-cell therapy for patients with refractory/relapsed GPNMB-expressing solid malignancies.*

**Funding Source:** Canadian Institutes of Health Research (CIHR)

**iSARP Investigators:** Mahoney (PI); Henning (co-PI); Morrissy (co-PI)

**Dates:** 2024-2028

**Funding Amount:** \$764,044/year



**Project Title:** *Cancer prevention among adolescents and young adults: understanding etiology, knowledge and beliefs.*

**Funding Source:** Alberta Cancer Research for Screening and Prevention Program (CRSP) **iSARP Investigators:** Henning (co-applicant)

**Dates:** 2022-2026

**Funding Amount:** \$163,750/year

---

**Project Title:** *Beyond Local Control: Repurposing radiation therapy as an immunogenic modulator in soft tissue sarcomas.*

**Funding Source:** Cancer Research Society (CRS)

**iSARP Investigators:** Monument (PI); Morrissy (co-applicant); Stosky (co-applicant)

**Dates:** 2023-2025

**Funding Amount:** \$62,250/year

## GRANTS UNDER REVIEW

**Project Title:** *Synergistic STING: Combination Radiation and STING Therapy to Improve Surgical and Immune-based Outcomes for High-Risk Soft Tissue Sarcomas.*

**Funding Source:** CIHR

**iSARP Investigators:** Monument (PI); Morrissy (co-applicant); Zemp (co-applicant); Mahoney (collaborator)

**Funding Requested:** \$1,300,000

---

**Project Title:** *Innovative Pre-Clinical Development of Next Generation CD276 CAR T Cells for Paediatric and Adult Sarcomas.*

**Funding Source:** Arthur Child Innovation Catalyst Grant

**iSARP Investigators:** Zemp (PI); Morrissy (co-applicant); Chan (co-applicant); Mahoney (co applicant); Monument (co-applicant); Henning (co-applicant); Caragea (co-applicant)

**Funding Requested:** \$300,000

**Project Title:** *Evaluating the Lethal Targeting of Doxorubicin-Induced Senescent Lung Cells to Inhibit Sarcoma Lung Metastases.*

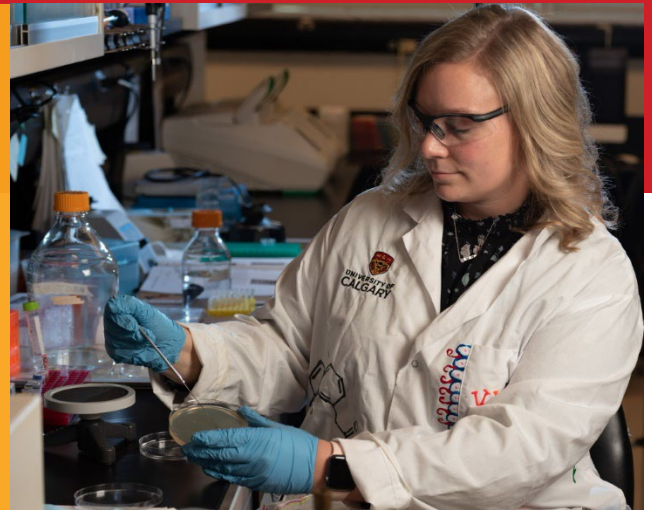
**Funding Source:** Arthur Child Innovation Catalyst Grant

**iSARP Investigators:** Jirik (PI); Monument (co-applicant); Kendal (co-applicant)

**Funding Requested:** \$300,000

## Sarcoma Training and Education

Our sarcoma program continues to grow multiple layers of expertise by encouraging a culture of research, innovation, and curiosity by training the next generation of scientists and clinicians. Students and trainees are the engines that drive much of the sarcoma research in our program. Here is a list of iSARP research trainees:



## ACTIVE Trainees

### Kurt Hildebrand, PhD thesis

**Supervisors:** Monument; Canton; Dufour; Matyas

**Project:** *Investigating macrophage recruitment and immunogenic modulation in murine models of sarcoma.*

### **Max Labrecque, MSc thesis**

**Supervisors:** Monument; Morrissy, Schriemer; Stosky

**Project:** *Influence of external beam radiation on mutational signatures in murine models of sarcoma.*

### **Logan Mahoney, MSc thesis**

**Supervisors:** Monument; Kendal; Stosky

**Project:** Strategic immunogenic radiation dosing to overcome STING resistance in soft tissue sarcoma.

### **Alyssa Federico, MSc thesis**

**Supervisors:** Kendal; Monument; Fidler-Benaoudia; Holash

**Project:** *Evaluating the Implementation, Utility, and Clinical Importance of PROMIS Scores in Sarcoma Patients.*

### **Gurveer Gill, MSc thesis**

**Supervisor:** Morrissy

**Project:** *Assessing mechanisms of resistance of GCAR1 in patient and xenograft samples using spatial transcriptomics.*

### **Hyojin Song, Sarcoma Postdoctoral fellow**

**Supervisor:** Morrissy

**Project:** *Predicting Response to Immune Checkpoint Blockade in Sarcoma.*

### **Alyssa Federico, MSc thesis**

**Supervisors:** Kendal; Monument; Fidler-Benaoudia; Holash

**Project:** *Evaluating the Implementation, Utility, and Clinical Importance of PROMIS Scores in Sarcoma Patients.*

### **Gurveer Gill, MSc thesis**

**Supervisor:** Morrissy

**Project:** *Assessing mechanisms of resistance of GCAR1 in patient and xenograft samples using spatial transcriptomics.*

### **Hyojin Song, Sarcoma Postdoctoral fellow**

**Supervisor:** Morrissy

**Project:** *Predicting Response to Immune Checkpoint Blockade in Sarcoma.*

### **John Pinzon Bedoya, Postdoctoral fellow**

**Supervisors:** Monument, Puloski, Kendal

**Project:** *STING Immunotherapy as a Surgical Adjunct to Prevent Post-operative Tumor Recurrence.*

### **Mac Xing, Summer Student**

**Supervisor:** Monument

**Project:** *Understanding and Mitigating STING Immunotherapy Cytokine Toxicity.*

# Alumni Trainees

## Alexis Philippot, MSc thesis

**Supervisors:** Senger; Monument; Narendran

**Project:** *The Impact of the Innate Immune System in Alveolar Soft Part Sarcoma.*

**Completion:** October 2022

## Samuel Brown, MSc thesis

**Supervisors:** Morrissy; Monument; Schreimer

**Project:** *Radiotherapy-mediated modulation of the tumour microenvironment in undifferentiated pleomorphic sarcoma.*

**Completion:** June 2023

## Karys Hildebrand, PhD thesis; MD-PhD program

**Supervisors:** Monument; Jirik; Dufour; Muruve

**Project:** *Investigating translational STING immunotherapies for soft tissue sarcoma.*

**Completion:** May 2024

## Bilal Marwa, Postdoctoral fellow

**Supervisors:** Khan; Feng; Henning; Monument

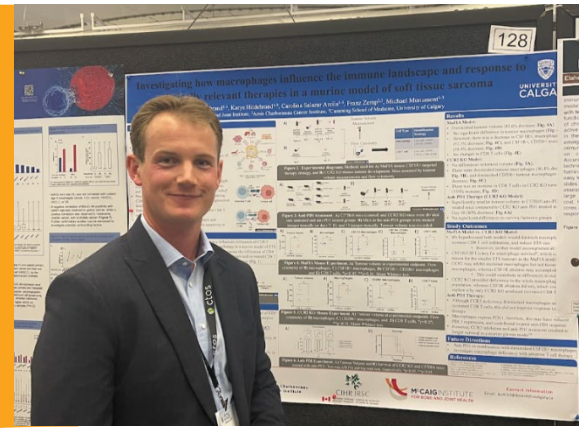
**Project:** *Practice Patterns and Predictors of Outcomes in Patients with Ewing Sarcoma and Other Undifferentiated Round Blue Cell Sarcomas - A Canadian Multicenter Study.* **Completion:** September 2023

## Nameerah Wajahat, Medical student

**Supervisor:** Monument

**Project:** *Efficacy of an Image-guided Biopsy Tumour Banking Program for Musculoskeletal Neoplasms.*

# iSARP Peer Reviewed Publications



## 2024

- ▶ Abbott AG, Meyers DE, Elmi-Assadzadeh G, Stukalin I, Marro A, Puloski SKT, Morris DG, Cheung WY, Monument MJ. Effectiveness of immune checkpoint inhibitor therapy on bone metastases in non-small-cell lung cancer. *Front Immunol*. 2024 Jun 18;15:1379056.
- ▶ Geiger EJ, **Kendal JK**, Greyson MA, Moghaddam MM, Jones NF, Bemthal NM. Hip Preservation and Capanna Reconstruction for Pediatric Proximal Femur Ewing Sarcoma: A Report of 2 Cases. *JBJS Case Connect*. 2024 May 31;14(2).
- ▶ Paulson AE, Stein A, **Kendal JK**, Bemthal NM, Wessel LE. Most Patients with Bone Sarcomas Seek Emotional Support and Information About Other Patients' Experiences: A Thematic Analysis. *Clin Orthop Relat Res*. 2024 Jan 1;482(1):161-171. doi: 10.1097/CORR.0000000000002761. Epub 2023 Jul 11. PMID: 37432118; PMCID: PMC10723872.
- ▶ Walker K, Simister SK, Carr-Ascher J, **Monument MJ**, Thorpe SW, Randall RL. Emerging innovations and advancements in the treatment of extremity and truncal soft tissue sarcomas. *J Surg Oncol*. 2024 Jan;129(1):97-III.
- ▶ Noujaim J, Gupta AA, Holloway CL, Saleh R, Srikanthan A, Lemieux C, Soroka HP, Tibout P, Turcotte R, **Feng X**, Abdul Razak AR, Costa P. Real-world experience of pazopanib and sorafenib in patients with desmoid tumors: A CanSaRCC multi-center study. *Eur J Cancer*. 2024 Jun 1;205:114119.
- ▶ Beecroft JR, Brar S, **Feng X**, Hamilton T, Han-Lee C, Henning JW, Josephy PD, Khalili K, Ko YJ, Lemieux C, Liu DM, MacDonald DB, Noujaim J, Pollett A, Salawu A, Saleh R, Smrke A, Warren BE, Zbuk K, Razak AA. Pan-Canadian consensus recommendations for GIST management in high- and low- throughput centres across Canada. *Ther Adv Med Oncol*. 2024 Aug 2; 16:17588359241266179
- ▶ Hajjaj OI, Corke L, Strahlendorf C, Hamilton SN, **Feng X**, Simmons CE. Treatment differences and long-term outcomes in adults and children with Ewing sarcoma. *Cancer Epidemiol*. 2024 Oct; 92:102653.

## 2023

- ▶ **Kendal JK**, Shehata MS, Lofftus SY, Crompton JG. Cancer-Associated B Cells in Sarcoma. *Cancers (Basel)*. 2023 Jan 19;15(3):622.
- ▶ **Kendal JK**, Hamad CD, Abbott AG, Greig D, Trikha R, Christ AB, Wessel LE, **Puloski SKT**, **Monument MJ**, Bemthal NM. What are the indications and survivorship of tumor endoprosthetic reconstructions for patients with extremity metastatic bone disease? *J Surg Oncol*. 2023 Jun;127(7):1196- 1202.

- ▶ HorkoffMJ, **Kendal JK**, Blackmore C, Truong TH, Guilcher GMT, Brindle ME. A population based analysis of the presentation and outcomes of pediatric patients with osteosarcoma in Canada: a report from CYP-C. *Can J Surg*. 2022 Aug 12;65(4):E527-E533.
- ▶ Eckardt MA, Graham DS, Klingbeil KD, Lofftus SY, McCaw TR, Bailey MJ, Goldring CJ, **Kendal JK**, Kadera BE, Nelson SD, Dry SM, Kalbasi AK, Singh AS, Chmielowski B, Eilber FR, Eilber FC, Crompton JG. Lifelong Imaging Surveillance is Indicated for Patients with Primary Retroperitoneal Liposarcoma. *Ann Surg Oncol*. 2023 May;30(5):3097-3103
- ▶ Stein AM, Paulson AE, **Kendal JK**, Bemthal NM, Wessel LE. Thematic analysis of online discussion forums for soft tissue sarcomas. *Cancer Treat Res Commun*. 2023; 37:100773.
- ▶ Van der Heijden L, Spierenburg G, **Kendal JK**, Bemthal NM, van de Sande MAJ. Multimodal management of synovial giant cell tumors (TGCT) in the landscape of new druggable targets. *J Surg Oncol*. 2023 Sep;128(3):478-488.
- ▶ Mesfin A, Carsen S, Dickens JF, Eward W, Miller AN, Protopsaltis T, **Monument MJ**. The 2022 American-British-American (ABC) Traveling Fellowship: The PostPandemic Tour. *Journal of Bone and Joint Surgery (Am)*. 2023 15;105(22):1825-1830. Doi: 10.2106/JBJS23.00538. PMID: 37611250.
- ▶ Randall RL, Theriault RV, Thorpe SW, **Monument MJ**. Emerging innovations and advancements in the field of musculoskeletal oncology. *J Surg Oncol*. 2023 Sep;128(3):415 - 417. doi: 10.1002/jso.27409. PMID: 37537986.
- ▶ Grover SA, Abbott L, Berman JN, **Chan JA**, Denburg AE, Deyell RJ, Fernandez CV, Hawkins C, **Henning JW**, Irwin MS, Jabado N. The PREcision Oncology for Young people (PROFYLE) Program: A national precision oncology program for children, adolescents and young adults with hard-to-cure cancer in Canada. *Cancer Research*. 2022 Jun 15;82(12\_Supplement):5224-5224.
- ▶ **Feng X.**, Tonon, L., Li, H., Darbo, E., Pleasance, E., Macagno, N., ... & Blay, J. Y. Comprehensive Immune Profiling Unveils a Subset of Leiomyosarcoma with "Hot" Tumor Immune Microenvironment. *Cancers*, 15(14), 3705.
- ▶ Marritt, K. L., **Hildebrand, K. M.**, **Hildebrand, K. N.**, Singla, A. K., **Zemp, F. J.**, **Mahoney, D. J.**, ... & **Monument, M. J.** (2023). Intratumoral STING activation causes durable immunogenic tumor eradication in the KP soft tissue sarcoma model. *Frontiers in Immunology*, 13, 1087991.
- ▶ Peretz Soroka H, Vora T, Noujaim J, Marcoux N, Cohen-Gogo S, Alcindor T, Holloway C, Rodrigues C, Karachiwala H, Alvi S, Lee U, Cheng S, Banerji S, Oberoi S, **Feng X**, Smrke A, Simmons C, Razak AA, Gupta AA. Real-world experience of tyrosine kinase inhibitors in children, adolescents and adults with relapsed or refractory bone tumours: A Canadian Sarcoma
- ▶ Stein AM, Paulson AE, **Kendal JK**, Bemthal NM, Wessel LE. Thematic analysis of online discussion forums for soft tissue sarcomas. *Cancer Treat Res Commun*. 2023; 37:100773.
- ▶ Van der Heijden L, Spierenburg G, **Kendal JK**, Bemthal NM, van de Sande MAJ. Multimodal management of synovial giant cell tumors (TGCT) in the landscape of new druggable targets. *J Surg Oncol*. 2023 Sep;128(3):478-488.
- ▶ Mesfin A, Carsen S, Dickens JF, Eward W, Miller AN, Protopsaltis T, **Monument MJ**. The 2022 American-British-American (ABC) Traveling Fellowship: The PostPandemic Tour. *Journal of Bone and Joint Surgery (Am)*. 2023 15;105(22):1825-1830. Doi: 10.2106/JBJS23.00538. PMID: 37611250.

- ▶ Randall RL, Theriault RV, Thorpe SW, **Monument MJ**. Emerging innovations and advancements in the field of musculoskeletal oncology. *J Surg Oncol*. 2023 Sep;128(3):415-417. doi: 10.1002/jso.27409. PMID: 37537986.
- ▶ Grover SA, Abbott L, Berman JN, **Chan JA**, Denburg AE, Deyell RJ, Fernandez CV, Hawkins C, **Henning JW**, Irwin MS, Jabado N. The PReCISION Oncology for Young people (PROFYLE) Program: A national precision oncology program for children, adolescents and young adults with hard-to-cure cancer in Canada. *Cancer Research*. 2022 Jun 15;82(12\_Supplement):5224-5224.
- ▶ **Feng, X.**, Tonon, L., Li, H., Darbo, E., Pleasance, E., Macagno, N., ... & Blay, J. Y. Comprehensive Immune Profiling Unveils a Subset of Leiomyosarcoma with "Hot" Tumor Immune Microenvironment. *Cancers*, 15(14), 3705.
- ▶ Marritt, K. L., **Hildebrand, K. M.**, **Hildebrand, K. N.**, Singla, A. K., **Zemp, F. J.**, **Mahoney, D. J.**, ... & **Monument, M. J.** (2023). Intratumoral STING activation causes durable immunogenic tumor eradication in the KP soft tissue sarcoma model. *Frontiers in Immunology*, 13, 1087991.
- ▶ Peretz Soroka H, Vora T, Noujaim J, Marcoux N, Cohen-Gogo S, Alcindor T, Holloway C, Rodrigues C, Karachiwala H, Alvi S, Lee U, Cheng S, Banerji S, Oberoi S, **Feng X**, Smrke A, Simmons C, Razak AA, Gupta AA. Real-world experience of tyrosine kinase inhibitors in children, adolescents and adults with relapsed or refractory bone tumours: A Canadian Sarcoma Research and Clinical Collaboration (CanSaRCC) study. *Cancer Med*. 2023 Sep;12(18):18872-18881.

## 2022

- ▶ **Kendal JK**, Wong M, Montgomery SJ, Benavides B, **Monument MJ**, **Puloski SK**. "In-house" Design and Use of 3-dimensional Printed Patient-specific Bone Tumor Resection Guides for Geometric Osteotomies in Sarcoma Surgery. *Techniques in Orthopaedics*. 2022 Dec 1;37(4):238-44.
- ▶ **Feng, X.**, Li, H., Fourquet, J., Brahmi, M., Dufresne, A., Meurgey, A., ... & Blay, J. Y. Refining Prognosis in Localized Gastrointestinal Stromal Tumor: Clinical Significance of Phosphatase and Tensin Homolog Low Expression and Gene Loss. *JCO Precision Oncology*, 6, e2200129
- ▶ Grover, S.A., Abbott, L., Berman, J.N., **Chan, J.A.**, Denburg, A.E., Deyell, R.J., Fernandez, C.V., Hawkins, C., **Henning, J.W.**, Irwin, M.S. and Jabado, N. (2022). The PReCISION Oncology for Young people (PROFYLE) Program: A national precision.
- ▶ **Feng, X.**, Li, H., Fourquet, J., Brahmi, M., Dufresne, A., Meurgey, A., ... & Blay, J. Y. (2022). Refining Prognosis in Localized Gastrointestinal Stromal Tumor: Clinical Significance of Phosphatase and Tensin Homolog Low Expression and Gene Loss. *JCO Precision Oncology*, 6, e2200129
- ▶ Dang, A., **Feng, X.**, Hamm, J., Holloway, C. L., & Truong, P. T. (2022). Survival Outcomes in Metastatic Ewing Sarcoma Treated with Whole-Lung Radiation. *Cureus*, 14(7).
- ▶ Choi, K. Y., **Mack, L.**, **Caragea, M.**, **Monument, M.**, **Puloski, S.**, & **Bouchard-Fortier, A.** (2022). MDM2 analysis in the management of benign lipomas versus atypical lipomatous tumors/well-differentiated liposarcomas: A useful prognostication tool? *The American Journal of Surgery*, 224(2), 747-750.

- ▶ Diaz, R. L., Moss, S. J., Amin, K. B., Harper, A. S., **Henning, J. W.**, Logie, N., ... & Fidler-Benaoudia, M. M. (2022). Data Resource Profile: The Alberta Adolescent and Young Adult Cancer Survivor Study. *International Journal of Epidemiology*, 51(3), e55e64.
- ▶ Kandler T, Cortez E, Clinton L, Hemmerich A, Ahmed O, Wong R, Foms T, MacNeill AJ, Hamilton TD, Khorasani M, **Feng X**. A Case Series of Metastatic Malignant Gastrointestinal Neuroectodermal Tumors and Comprehensive Genomic Profiling Analysis of 20 Cases. *Curr Oncol*. 2022 Feb 21;29(2):1279-1297. doi: 10.3390/curroncol29020109. PMID: 35200608; PMCID: PMC8870546.
- ▶ Sun Y, Han R, Wang J, Qin Y, Ren Z, **Feng X**, Liu Q, Wang X. A single beam of light priming the immune responses and boosting cancer photoimmunotherapy. *J Control Release*. 2022 Oct;350:734-747. doi: 10.1016/j.jconrel.2022.08.057. Epub 2022 Sep 8. PMID: 36063959.

## iSARP Conference and Sub-Specialty Society Presentations:

# 2024

- ▶ **Omar F. Khan**, Emily Heath, **Antoine Bouchard-Fortier**, **Xiaolan Feng**, **Jan-Willem Henning**, **Lloyd Mack** (2024). Incidence, Treatment Patterns, And Survival Outcomes for Adult Patients with Gastrointestinal Stromal Tumours (Gist) in Alberta, Canada from 2008 - 2022. *Connective Tissue Oncology Society Annual Meeting, San Diego*
- ▶ **Mobina Kazemi**, **Hyojin Song**, Kiran Narta, Varsha Thoppey Manoharan, Joanna Pyczek, Ana Bogossian, **Jennifer Chan**, **Michael Monument**, **Sorana Morrissy** (2024) Comparison of Annotation Methods for Pan-Sarcoma Single Cell Data. *Connective Tissue Oncology Society Annual Meeting, San Diego*
- ▶ **Gurveer Gill**, Varsha Thoppey Manoharan, Hongrui Liu, Bo Young Ahn, **Franz Zemp**, **Douglas Mahoney**, **Sorana Morrissy** (2024). Application And Analysis of Spatial Transcriptomic Profiling to Clinical Alveolar Soft Part Sarcoma Samples to Understand Immunotherapy-Relevant Variables. *Connective Tissue Oncology Society Annual Meeting, San Diego*
- ▶ **Karys Hildebrand** (2024). The clinically relevant STING agonist: E7766 induces immunogenic tumor clearance and protection against current disease in the KP model of undifferentiated pleomorphic sarcoma. *Canadian Orthopaedic Association Annual Meeting - Podium Presentation, Halifax, Nova Scotia, Canada*.

- ▶ **Kurt Hildebrand, Karys Hildebrand, Carolina Salazar-Arcila, Frans Zemp, Arvind Singla, Kiran Narta, Theodore Verhey, Hyojin Song, Roman Krawetz, John Matyas, Sorana Morriissy, Douglas Mahoney, Michael Monument** (2024). Characterization of Two Novel Immune Competent, Murine Models of Soft Tissue Sarcoma. *Connective Tissue Oncology Society Annual Meeting - Poster Presentation, San Diego.*
- ▶ **Theodore Verhey, Kiran Narta, Karys Hildebrand, Kurt Hildebrand, Carolina Salazar Arcila, Michael Monument, Sorana Morriissy** (2024). Estimating Immune Infiltrates of Novel Genetically Engineered Mouse Models of Undifferentiated Pleomorphic Sarcoma. *Connective Tissue Oncology Society Annual Meeting- Poster Presentation, San Diego.*
- ▶ **Kurt Hildebrand, Karys Hildebrand, Carolina Salazar-Arcila, Franz J. Zemp, Danyel Evseev** (2024). Investigating How Tumour Associated Macrophages Influence the Efficacy of Car-T Therapy in A Murine Model of Soft Tissue Sarcoma. *Connective Tissue Oncology Society Annual Meeting - Poster Presentation, San Diego*
- ▶ **Hyojin Song, Theodore Verhey, Joanna Pyczek, Ana Bogossian, Jennifer Chan, Michael Monument, Sorana Morriissy** (2024). Cross-Cohort Integration as a Strategy to Classify Immune Checkpoint Blockade Response in Sarcoma. *Connective Tissue Oncology Society Annual Meeting - Poster Presentation, San Diego.*
- ▶ **Hyojin Song, Theodore B. Verhey, Joanna Pyczek, Ana Bogossian, Jennifer Chan Michael Monument, Sorana Morriissy** (2024). Predicting Response to Immune Checkpoint Blockades in Sarcoma. *The Marathon of Hope Cancer Centres Network (MOHCCN) Seminar Series - Prairie Cancer Consortium (PR2C)- Seminar Presentation*
- ▶ **Hyojin Song** (2024). Cross-Cohort Transcriptomic Integration Approach to Predict Immune Checkpoint Blockade Response in Sarcoma. *The 23rd European Conference on Computational Biology (ECCB)- Conference Presentation, Finalnd*
- ▶ **Hyojin Song** (2024). Predicting Response to Immune Checkpoint Blockade in Soft Tissue Sarcoma. *The 10th Terry Fox Research Institute (TFRJ) Annual Scientific Meeting- Poster Presentation, Toronto.*

2023

- ▶ **Sorana Morriissy** (2023). cNMF-SNS: a framework for unsupervised multi-omic integration across patient cohorts to delineate principles of tumor evolution and treatment response. *Keystone Symposia, The Resistant Tumor Microenvironment, Vancouver, Canada*
- ▶ **Sorana Morriissy** (2023). Multi-omic profiling and data integration. *21st Annual Workshop at Bellairs - Cells in Space, Bellairs Research Institute, McGill, Barbados*
- ▶ Volden R, Kronenberg Z, Gillmor A, **Verhey T, Monument M**, Senger D, Dhillon H, Underwood J, Tseng E, Baker D, Baybayan P, Eberle MA, Korlach J, **Morriissy S.** (2023). pbfusion: Detecting gene-fusion and other transcriptional abnormalities using PacBio HiFi data. *AACR Annual Meeting, Orlando, Florida*
- ▶ Jafri, M., Willman, C., Urton, A. M., **Henning, JW**, Abbott LS, Davison K., ... & Hay, AE. (2023). Accrual of adolescents and young adults (AYA) into cancer clinical trials in Canada. *ASCO Annual Meeting, Chicago, Illinois*
- ▶ **Samuel Brown, Ted Verhey, Heewon Seo, Karys Hildebrand, Kurt Hildebrand, Michael Monument, Sorana Morriissy** (2023). Radiotherapy- mediated modulation of the tumour microenvironment in undifferentiated pleomorphic sarcoma (Rapid-fire oral presentation). *Toronto International Sarcoma Symposium, Toronto, Ontario, Canada.*

- ▶ **Samuel Brown**, Ted Verhey, Heewon Seo, Karys Hildebrand, Kurt Hildebrand, Michael Monument, Sorana Morrissy (2023). Neoadjuvant radiotherapy alters the tumour microenvironment of undifferentiated pleomorphic sarcoma (Poster presentation). *Amie Charbonneau Cancer Research Symposium, Calgary, Alberta, Canada*
- ▶ **Samuel Brown**, Ted Verhey, Heewon Seo, Karys Hildebrand, Kurt Hildebrand, Michael Monument, Sorana Morrissy (2022). Investigating the role of clinical irradiation dose on tumour cells and the microenvironment (Poster presentation). *Summit for Cancer Immunotherapy, Montreal, Quebec, Canada*.
- ▶ **Samuel Brown**, Ted Verhey, Heewon Seo, Karys Hildebrand, Kurt Hildebrand, Michael Monument, Sorana Morrissy (2022). Clinical irradiation dose and the tumour microenvironment: A spatial transcriptomics investigation (Poster presentation). *CSHL Meetings - Biological Data Science, Cold Spring Harbour Laboratory, New York, USA*.
- ▶ **Karys Hildebrand**, Kurt Hildebrand, Carolina Salazar-Arcila, Michael Monument (2023). Evaluating the Roles of Host and Tumor STING Expression in the Efficacy of STING as an Immunotherapy for Soft Tissue Sarcoma (Poster presentation). *Canadian Orthopaedic Association Annual Meeting*.
- ▶ **Karys Hildebrand**, Kurt Hildebrand, Carolina Salazar-Arcila, Kayla Marritt, Michael Monument (2023). STimulator of INterferon Genes (STING) Activation as an Immunogenic Therapy for Undifferentiated Pleomorphic Sarcoma (Podium presentation). *American Academy of Orthopaedic Surgeons Annual Meeting*.

2022

- ▶ **Karys Hildebrand**, Kurt Hildebrand, Carolina Salazar-Arcila, Kayla Marritt, Michael Monument (2022). STING Activation as an Immunogenic Therapy for Undifferentiated Pleomorphic Sarcoma (Podium presentation). *Connective Tissue Oncology Society Annual Meeting*.
- ▶ **Karys Hildebrand**, Kurt Hildebrand, Carolina Salazar-Arcila, Kayla Marritt, Michael Monument (2022). STING Activation in Sarcoma: Assessing Clinically Relevant Therapeutic Strategies (Poster presentation). *Society for the Immunotherapy of Cancer 37th Annual Meeting*.
- ▶ **Karys Hildebrand**, Kurt Hildebrand, Carolina Salazar-Arcila, Kayla Marritt, Michael Monument (2022). STING Activation in Sarcoma: Assessing Translational Therapeutic Strategies (Podium presentation). *Canadian Orthopaedic Association Annual Meeting*.
- ▶ **Xiaolan Feng** (2022). Real-World Experience of Tyrosine Kinase Inhibitors in patients (pt) with Recurrent Bone Tumors (BT): A CanSaRCC Study (Oral presentation). *Connective Tissue Oncology Society Annual Meeting*.
- ▶ **Xiaolan Feng** (2022). Survival outcomes in metastatic Ewing sarcoma treated with whole lung radiation (Oral Presentation). *Connective Tissue Oncology Society Annual Meeting*.
- ▶ **Xiaolan Feng** (2022). Comprehensive immune profiling unveils a subset of leiomyosarcoma with "hot" tumor immune microenvironment (Poster Presentation) *Connective Tissue Oncology Society Annual Meeting*.
- ▶ Padmore, G. **Puloski**, S. Jacobson, M. Millar, S. Golpira, **EA. Kurien**, **E. Stosky**, **J. Henning**, **J-W. Monument**, **M. Khan**, **O. Caragea**, **M. Mack**, **L.** (2022). Preoperative Chemoradiation (modified eilber protocol) versus neoadjuvant/ adjuvant radiotherapy for soft tissue extremity sarcomas: a population-based analysis in Alberta (Poster Presentation) *Connective Tissue Oncology Society Annual Meeting*.

# Graduate Thesis:

2024

- ▶ **Hildebrand, K** (2024): Investigating the Stimulator of Interferon Genes Pathway as a Translational Immunogenic Therapy for Soft Tissue Sarcoma.  
PhD Thesis
- ▶ **Brown, S** (2023): The impact of clinical irradiation on tumour cells and the microenvironment of undifferentiated pleomorphic sarcoma.  
MSc Thesis
- ▶ **Philippot, A** (2022): The Impact of the Innate Immune System in Alveolar Soft Part Sarcoma.  
MSc Thesis

# Appendix I:

## iSARP ACTIVE TEAM MEMBERS

|                   | Name               | Position                           | Expertise                                  |
|-------------------|--------------------|------------------------------------|--------------------------------------------|
| <b>Leadership</b> | Michael Monument   | iSARP Director                     | MSK Oncology Surgeon<br>Scientist          |
|                   | Nkiru Ezeonyeka    | iSARP Program<br>Coordinator       | Business management<br>Program Development |
|                   | Jennifer Chan      | iSARP Advisory<br>Committee member | Charbonneau Institute Lead                 |
|                   | Don Morris         | iSARP Advisory<br>Committee member | Head, Department of Oncology               |
|                   | Jan-Willem Henning | iSARP Advisory<br>Committee member | Provincial sarcoma program<br>team lead    |
|                   | Ron Daye & Family  | iSARP Advisory<br>Committee member | Patient Partners<br>Sarcoma Advocacy       |

|                                | Name                         | Position                                     | Expertise                                                                          |
|--------------------------------|------------------------------|----------------------------------------------|------------------------------------------------------------------------------------|
| <b>iSARP<br/>Clinical Team</b> | Michael Monument             | Sarcoma Surgeon<br>and Research<br>Scientist | Orthopaedic surgery<br>Animal models<br>Sarcoma immunotherapy                      |
|                                | Shannon Puloski              | Sarcoma Surgeon                              | Orthopaedic surgery                                                                |
|                                | Joseph Kendal                | Sarcoma Surgeon                              | Orthopaedic surgery<br>Sarcoma Immunotherapy                                       |
|                                | Lloyd Mack                   | Sarcoma Surgeon                              | General surgery                                                                    |
|                                | Antoine Bouchard-<br>Fortier | Sarcoma Surgeon                              | General surgery                                                                    |
|                                | Jan-Willem Henning           | Sarcoma Medical<br>Oncologist                | AYA<br>Clinical trials<br>Medical Lead: Provincial<br>Sarcoma Tumour Group         |
|                                | Omar Khan                    | Sarcoma Medical<br>Oncologist                | iSARP database design Clinical<br>trials<br>Precision oncology<br>Machine learning |
|                                | Xiaolan Feng                 | Sarcoma Medical<br>Oncologist                | Targeted therapy<br>Genomics; RNA<br>sequencing Clinical<br>trials                 |
|                                |                              |                                              |                                                                                    |

|                                | Name               | Position                     | Expertise                                                           |
|--------------------------------|--------------------|------------------------------|---------------------------------------------------------------------|
| <b>iSARP<br/>Clinical Team</b> | Dan Schiller       | Surgical Oncologist          | General surgery<br>Universi of Alberta                              |
|                                | Michael McCall     | Sarcoma Surgeon              | General surgery<br>Universi of Alberta                              |
|                                | Don Morris         | Sarcoma Medical Oncologist   | Immunotherapy<br>Clinical trials                                    |
|                                | Elizabeth Kurien   | Sarcoma Radiation Oncologist | Medical Lead, Provincial<br>Tumour Teams<br>Alberta Cancer Registry |
|                                | Jordan Stosky      | Sarcoma Radiation Oncologist | Radio-immunotherapy<br>Clinical trials                              |
|                                | Jennifer Chan      | Neuropathologist             | Pathology<br>Tumour banking<br>MOHCCN Lead - Prairies               |
|                                | Mara Caragea       | Sarcoma Pathologist          | Sarcoma pathology                                                   |
|                                | Ashley Flaman      | Sarcoma Pathologist          | Sarcoma pathology                                                   |
|                                | Melanie Finkbeiner | Sarcoma Pediatric Oncologist | Pediatric sarcoma Clinical trials                                   |

|                                  | Name            | Position                   | Expertise                                             |
|----------------------------------|-----------------|----------------------------|-------------------------------------------------------|
| <b>iSARP<br/>Scientific Team</b> | David Schriemer | Sarcoma Research Scientist | Proteomics<br>Computational biology                   |
|                                  | Frank Jirik     | Sarcoma Research Scientist | Immunotherapy<br>Pre-clinical models                  |
|                                  | Doug Mahoney    | Sarcoma Research Scientist | Immunotherapy Oncolytic viruses<br>CAR T cell biology |
|                                  | Sorana Morrissy | Sarcoma Research Scientist | Computationalbiolog<br>y Sarcoma/GBM                  |
|                                  | Franz Zemp      | Sarcoma Research Scientist | Immunotherapy<br>CAR T cell biology                   |

|                              | Name             | Position                               | Expertise                                                             |
|------------------------------|------------------|----------------------------------------|-----------------------------------------------------------------------|
| <b>iSARP Scientific Team</b> | Ted Verhey       | Sarcoma<br>Bioinformatics<br>Scientist | Computational biology<br>DNA/RNA/protein sequencing                   |
|                              | Johnathan Canton | Sarcoma Research<br>Scientist          | Antigen presentation<br>Immunology                                    |
|                              | Arvind Singla    | Research<br>Technician                 | Pre-clinical animal models<br>Immunotherapy<br>Pre-clinical radiation |
|                              | Carolina Salazar | Research<br>Technician                 | Lab manager<br>Genetically engineered animal<br>models                |
|                              | Danielle Simonot | Research Biobank                       | Manager, Alberta Cancer<br>Research Biobank                           |

|                        | Name            | Position                     | Expertise                          |
|------------------------|-----------------|------------------------------|------------------------------------|
| <b>Operations Team</b> | PM Khaled Faruq | iSARP Data<br>Technician     | Data Entry<br>Computer programming |
|                        | Nkiru Ezeonyeka | iSARP Program<br>Coordinator |                                    |

|                 | Name               | Position                          | Expertise |
|-----------------|--------------------|-----------------------------------|-----------|
| <b>Trainees</b> | Hyojin Song        | Postgraduate<br>Sarcoma Fellow    |           |
|                 | John Pinzon Bedoya | Postgraduate<br>Sarcoma Fellow    |           |
|                 | Gill Gurveer       | MSc Student                       |           |
|                 | Kurt Hildebrand    | PhD Student                       |           |
|                 | Karys Hildebrand   | MD/PhD Candidate                  |           |
|                 | Max Labrecque      | MSc Student                       |           |
|                 | Alyssa Federico    | MSc Student                       |           |
|                 | Logan Mahoney      | MSc Student                       |           |
| <b>Alumni</b>   | Bilal Marwa        | Postgraduate<br>Sarcoma Fellow    |           |
|                 | Mays Ibrahim       | iSARP Data<br>Entry<br>Technician |           |
|                 | Samuel Brown       | MSc Student                       |           |
|                 | Nameera Wajahat    | Undergraduate<br>Medical Student  |           |



To learn more about iSARP, visit our website:

<https://charbonneau.ucalgary.ca/research/integrated-sarcoma-program>



To support today, visit our online donation page:

<https://engage.ucalgary.ca/iSARP>