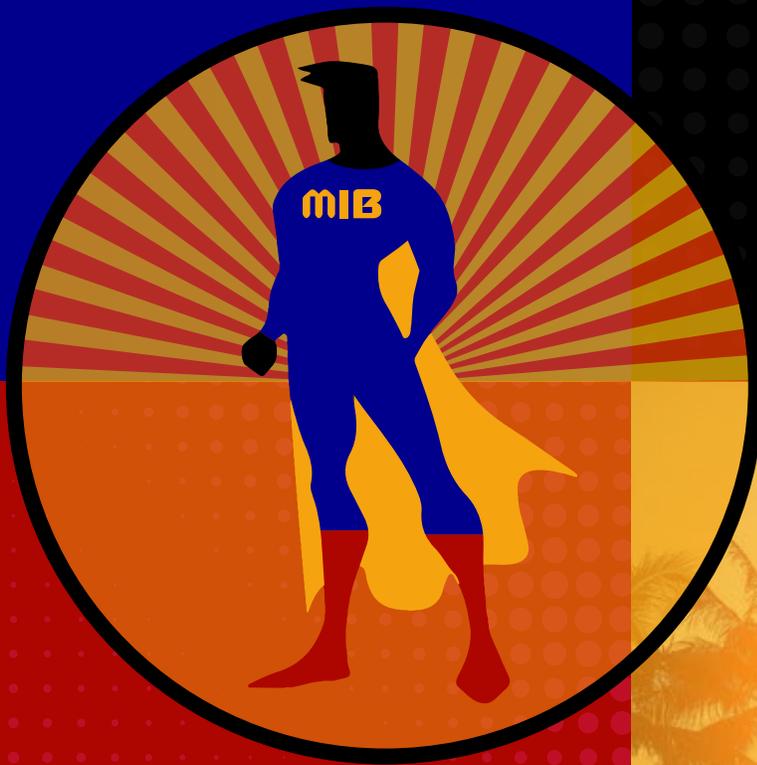


MIBAGENTS

FACTOR

Osteosarcoma Research Conference



- + FUNDING
- + AWARENESS
- + COLLABORATION
- + TRIALS
- + OSTEOSARCOMA
- + RESEARCH

2 0 1 7

february

24
25

*In Partnership with University of Miami,
Sylvester Comprehensive Cancer Center*

BILTMORE HOTEL MIAMI

our mission



► **The Mission** of M.I.B.

Agents is to Make It Better for children with osteosarcoma, bone cancer. With love and hope, M.I.B. Agents: pairs a child in treatment with a survivor of their same cancer, provides items of comfort and entertainment for their treatment and recovery and arranges end-of-life experiences for the child when options for treatment have been exhausted. Finally, M.I.B. Agents is dedicated to increasing research for better treatments and outcomes for those with osteosarcoma. M.I.B. Agents makes it better by helping to increase the quality of comfort and life for kids with osteosarcoma with the help of our community of dedicated and passionate Agents

► **Prayer Agents** are available by emailing Prayer Agent's Lead Agent Wendi. Whether urgent or ongoing, Wendi will activate our prayer agents all over the world with your special intention.
info@MIBagents.org

► **Osteosarcoma Patient Guide Book** is in the works, by patients and patient families. More information to follow on how to contribute to this essential guide go to www.mibagents.org.

Team Members: Maureen

Smart, Thomas Cowen & Ronee Cowen

► **Medical Team Editors:**

Jonathan Trent, MD PhD - University of Miami, Sylvester Comprehensive Cancer Center, Matteo Trucco, MD - University of Miami, Sylvester Comprehensive Cancer Center, John Healey - Memorial Sloan Kettering Cancer Center

► **MIB Agent Advocates, a.k.a. The A-Team**

Even Superheroes need backup. You can be an MIB Agent Advocate (The MIB A-Team). You just have to use your powers for good. Agent Advocates are notified first of special MIB Agent opportunities via email (no more than 1-2/month-*pinky promise*). They are also the first to know of New and Urgent Missions. If you would like to be on the MIB A-Team, please contact Liz Vallejo, MIB A-Team Leader evallejo4@hotmail.com

► **Supporting Agents**

There is little we can do to neutralize the opponents of hope without the generosity of Supporting Agents. MIB Agents, like any Super Hero Alliance, relies on the ongoing support of people like you who care about kids with cancer. We are 100% volunteer organization which pays no salaries, so that we can maximize every

dollar to the benefit of the kids we serve. We are a 501(c)(3) non-profit organization. We are grateful for you using your powers for good. Your 9-year-old self would approve. www.donorbox.org/m-i-b-agents

► **Special Agents**

These elite OsteoSurvivor agents are needed on a regular basis to support the warriors still on the field of battle in active treatment. You may be called upon to write a letter of hope and support to a warrior of your age and diagnosis. Additionally, other missions may be requested such as calling, visiting or emailing fellow warriors. Please email us at info@MIBAgents.org if you are able to lend your expertise.

► **SUPER Agents**

These are organizations that lend their super powers to kids in battle in big ways. A Corporate Sponsor's ongoing, meaningful support of our MISSIONS is truly using your power for good. If you have a super power to help arm a child with hope, please alert us at info@mibagents.org

► **Special Ops Agents**

Special Ops Agents are valued assets to MIB. When the MIB call goes out for a special experience for the MISSION at hand, these are

the people we call. Some work undercover, and their identity not revealed, while others are well known to us. We value their contributions greatly in making it better. If you have special powers or an idea of how to help, please email us at info@mibagents.org

► **MIB Agent GAMERS**

Special Agent GAMERS are awesome! They are the survivors, warriors and current patients of osteosarcoma. OsteoWarriors who are out of treatment are paired with an OsteoWarrior who is in treatment to do battle on the game and system (XBOX, PS) of their choice. This ongoing mission is led by Lead Special Agent Zach Johns, himself a survivor of osteosarcoma. To check in for this mission, please see the webpage MIB Agent GAMERS under What We Do. You can also email us at info@mibagents.org for more intel.

► **Star Agents**

Star Agents are parents and siblings of pediatric cancer warriors. As trusty sidekicks, they ensure the conditions are just right for their fighter to do battle. They know when to signal for backup and fellow Agents as needed. Please Agents, contact us if we can be of assistance at info@mibagents.org.

welcome

*Ann Graham, MIB Agents Founder
& President, Board of Directors*



LAST MAY THERESA BEECH AND I had dinner at the foot of Capitol Hill. I had finished a day of lobbying for the STAR Act and Theresa had come to meet me for dinner. MIB Agents was about to begin a Mission for her 13-year-old son, Daniel, who was recently put on Hospice Care. Over dinner, we lamented the state of osteosarcoma and how many children had recently died and were dying of this disease. At that dinner, we boldly decided that we needed to do something. Subsequent to that audacious thought came the considerably more rational one of, “who are we to imagine we could be successful in such an undertaking?” After some silence, I said, “The experts built the Titanic, Noah built the Ark, we must be Ark builders.”

We all know that this particular brand of cancer is despicable. To begin to defeat it, we must work together - patients, families, researchers and clinicians. Ark builders know that the achievement of a supernaturally daunting goal desires the hearts and minds of many, with the same harbor in their collective sight.

Improving outcomes for patients with osteosarcoma is a cause that calls for our collective talents. It requires more than a voice. We will only prevail against this disease if we call on our heart, minds and actions. This is a difficult, but not an impossible dream. It is our collective responsibility.

If you have a seat at this shared table we have gathered around over these few days, we know that you have dedicated your time, treasure and talent in service to Making It Better for those with this disease. We know that you likely had your own ‘Daniel’ along the way that inspired you to undertake this work, to be here. Thank you for your service to us, our families, our children. Thank you for using your powers for good every day to save the lives of those we love. We are grateful indeed.

With Hope & Gratitude,
Ann

[#BecauseOfDaniel](#) [#Factor2017](#)



notes...

...to make this conference as comfortable, safe and productive as possible

■ CONFERENCE APP



Download via your app store.
Look for Whoova and find "FACTOR 2017 Osteosarcoma Conference"

- ▶ This app will allow you to receive notifications, updates and information
- ▶ Participate in Post-Conference Polls
- ▶ Share Rides, Photos, Information, exchange contact with other attendees
- ▶ View Agenda, Speaker Profiles, Logistics and Attendees
- ▶ Ask Questions and Comment on sessions
- ▶ Lost & Found
- ▶ View conference photos
- ▶ Vote on where to send research dollars post-conference

■ SOCIAL MEDIA

Please tag all FACTOR Conference social media posts with the hashtag #FACTOR2017

Pre-Conference

MIB AMBASSADORS

Available to assist you before and during the conference, just ask.

MIB SPEAKER AGENT

Lilienne Brown (*OsteoWarrior*)
& **Laura Chlopecki**

Please see Lillie or Laura for any questions of coordination with regard to your presentation.

MIB QUESTION AGENT

Ronee Cowen (*OsteoAngel Mother*)

Questions for the Panel may be handed to Ronee, who will present the questions to the Panel on your behalf, anonymously if you wish. If you wish to ask your questions directly, please be specific and cognizant of time.

TIMELINE

Our timeline is extremely tight. Kindly arrive a few minutes before the session start time to ensure the meeting can begin promptly.

ÉTIQUETTE

Kindly refrain from asking other attendees to share or request medical advice or review a specific case in this venue.

NAME BADGES

Please visibly display your name badge throughout the conference

Conference

VIDEO RECORDING

The conference will be video recorded and available in unedited form post-conference. Please sign the release provided at registration.

ELECTRONICS

Cell Phones, PDAs, and Electronic Devices – Turn off or silence cell phones, PDAs, and electronic devices before the session begins.

CHECK OUT

If you plan on checking out Saturday, please do so in the morning and store your luggage with the Bell Captain. This will avert any delay in your departure plans, and avoid any late-check out fees.

Post Conference

EVALUATIONS

Your feedback is valuable to us. Please provide your comments via the Session Evaluation Form, Conference App or at Info@MIBagents.org

UNANSWERED QUESTIONS

Questions that are not answered during the conference sessions will be posted along with the answers on the MIB Conference App site after the conclusion of the conference.

THURSDAY

2.23

agenda

5:30-6:30

Opening Welcome

Ann Graham

MIB Agents President

● Granada Terrace

5:35-5:40

Welcome to Miami

Matteo Trucco, MD

*University of Miami, Sylvester Cancer Center,
Pediatric Hematology-Oncology, Director of
Phase I Pediatric Clinical Research Program*

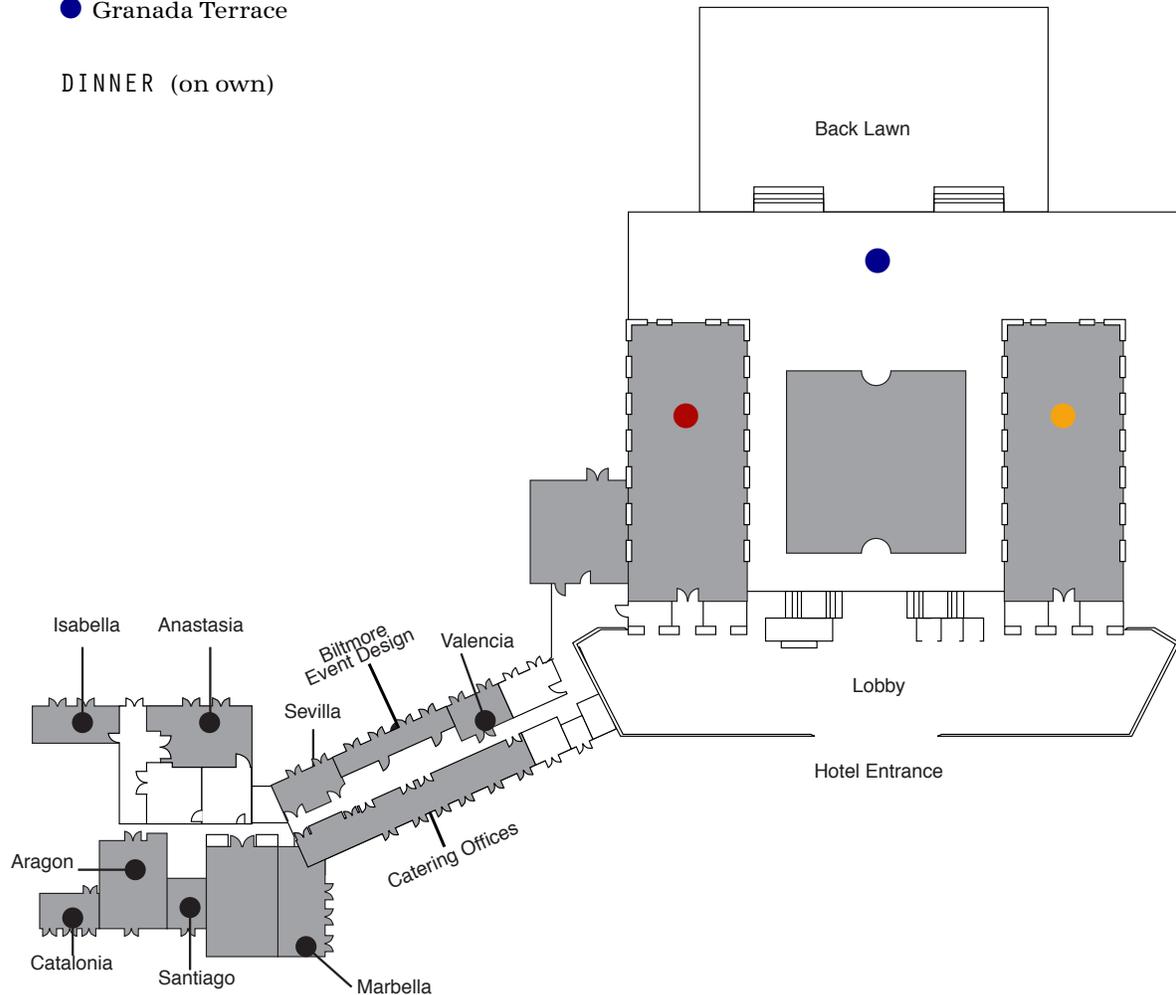
● Granada Terrace

DINNER (on own)

● GRANADA BALLROOM

● ALHAMBRA BALLROOM

● GRANADA TERRACE



FRIDAY

2.24 agenda

6:45-7:50 ●

Registration/Breakfast

8:00 ●

Welcome

Jonathan Trent, MD, PhD

*University of Miami, Sylvester
Comprehensive Cancer Center
Co-Director Musculoskeletal Center,
Sarcoma Medical Research Program*

8:15 ●

Opening Remarks

Ann Graham

*MIB Agents Founder & President
Our Mission & Purpose*

8:30 ●

Keynote Address

Theresa Beech

*MIB Agents Senior Research Advisor
Who Will Tell Our Story*

9:00am

Workshop

Zoe Panoch Starkey

*OsteoWarrior, Senior at Purdue University
Coping With Osteosarcoma Majorca*



BREAKOUT SESSION
OsteoWarriors HQ, Closed
Session, Aragon Room
AYA OsteoWarriors Only

Biology Session, Moderator:

Jonathan Trent, MD, PhD

9:05 ●

Bone Biology

Andrew Rosenberg, MD

*University of Miami, Sylvester
Comprehensive Cancer Center, Chief
of Anatomic Pathology, Dir. Bone
& Soft Tissue Service
Biology of the Bone*

9:25 ●

Genetics and Driver Mutations

Paul S. Meltzer, MD, PhD

*NIH, NCL CCR Chief, Genetics Branch
The Osteosarcoma Genome*

9:50 ●

Epigenetics

Fan Lai, PhD

*University of Miami, Molecular Biology,
Human Biology, Cell Biology
Current Understanding and Future
Direction of Epigenetics in Osteosarcoma:
Therapeutic Opportunities*

10:15 ●

Animal Models

Chand Khanna, DVM, PhD

*President, ETHOS Discovery,
ETHOS Veterinary Health
What are the Best Animal Models of
Osteosarcoma?*

10:40-10:55 ● BREAK

11:00 ●

Metastasis

Eugenie Kleinerman, MD

*MD Anderson, Prof. of the Div. of Pediatrics,
Dir. AYA Cancer Program
Understanding the Biology of Metastases
to Develop Therapeutic Approaches*

● GRANADA
BALLROOM

● ALHAMBRA
BALLROOM

● GRANADA
TERRACE

11:25 ●

Tumor Necrosis

Patrick Leavey, MD

UT Southwestern Medical Center, Dir Musculoskeletal Tumor Program, COG Bone Sarcoma Committee
Development of a Computational Tool to Interpret Osteosarcoma Response to Chemotherapy

11:50

Panel Discussion and Q&A Panel:
Rosenberg, Meltzer, Lai, Khanna, Klierman, Leavey

12:10-1:30 ● LUNCH

(preceded by a group photo, Back Lawn Steps)
Welcome to Miami by Raymond Rodriguez-Torres, President of Live Like Bella Childhood Cancer Foundation

12:10-1:30

Bereaved Parents Lunch
Palme d'Or

Diagnosis Session, Moderator:
Andrew Rosenberg, MD

1:35 ●

Radiology

Ty Subhawong, MD

University of Miami, Sylvester Comprehensive Cancer Center, Associate Professor of Clinical Radiology
Current and Future Imaging Modalities for Diagnosis

2:00 ●

Pathology

Darcy Kerr, MD

University of Miami, Sylvester Comprehensive Cancer Center Pathology
Pathology of Osteosarcoma & Current/Next Generation Tools for Pathologists to Diagnose Osteosarcoma

2:25 ●

Predisposition

Joshua Schiffman, MD

University of Utah, Professor Dept. of Pediatrics
Diagnostic tools and prevention strategies for those at risk of osteosarcoma

2:50 ●

Panel Discussion and Q&A Panel:
Subhawong, Kerr, Schiffman, Wang

3:10-3:20 ● BREAK

Radiation & Therapies Session,
Moderator: **Matteo Trucco, MD**

3:25 ●

Palliative Radiation

Raphael Yechieli, MD

University of Miami, Asst. Prof. of Radiation Oncology, Assoc. Residency Prog. Dir.
Proton Therapy Today and Tomorrow

3:45 ●

Q&A

Raphael Yechieli, MD

University of Miami, Asst. Prof. of Radiation Oncology, Assoc. Residency Prog. Dir.
Proton Therapy Today and Tomorrow

3:55 ●

Therapeutic Radiation

David M. Loeb, MD PhD

Johns Hopkins, Kimmel Assoc. Prof. Oncology & Pediatrics, Dir. Musculoskeletal Tumor Program
Present and Future Uses of Radiopharmaceuticals for Osteosarcoma

4:20 ●

Personalized Medicine

Alejandro Sweet-Cordero, MD

Stanford University School of Medicine, Assoc. Prof. Pediatrics
Current Strategies and Future Directions to Individualize Care of Osteosarcoma Patients

4:45 ●

Targeted Therapy

Rosandra N. Kaplan, MD

NIH, NCI Investigator Pediatric Oncology Branch, Head of Tumor Microenvironment Section
Lessons From Targeted Therapy Trials and Plans for the Future

5:10 ●

Drug Discovery

Claes Wahlestedt, MD, PhD

University of Miami, Assoc. Dean Therapeutic Innovation, Dir. Center for Therapeutic Innovation, Prof. Psychiatry & Behavioral Sciences
High-Throughput Assays for Drug Discovery

5:35

Panel Discussion and Q&A Panel:
Loeb, Sweet-Cordero, Kaplan, Wahlestedt

5:55 END OF DAY ONE SESSIONS

6:30pm ●

Cocktails

Matteo Trucco, MD

▲ WELCOME TO DINING ROOM

7:00pm ●

Dinner / Prayer / Bon Appetit!

2.25 agenda

6:45-7:50 ● BREAKFAST

8:00 ●

Welcome Day 2

Jonathan Trent, Ann Graham



BREAKOUT SESSION

Bereavement Workshop- Closed
Session for Bereaved Parents only

Lisa Merheb, LCSW

Surgical Session:

Moderator **Sheila Conway, MD**

8:05 ●

Local Control

John Healey, MD

*Memorial Sloan Kettering Cancer Center,
Chief Orthopedic Service*

Current and Future Surgical Approaches to
Optimize Local Control and Bone Metastasis

8:30 ●

Metastasis

Dao M. Nguyen, MD

*University of Miami, Sylvester Comprehensive
Cancer Center*

Metastasectomy: Open, VATS, Robotic, Other

8:55 ●

Prostheses

Howard G. Rosenthal, MD

*University of Kansas Medical Center, Assistant
Professor Orthopedic Surgery*

Prosthetics for Osteosarcoma

9:20 ●

Panel Discussion and Q&A Panel:

Healey, Nguyen, Rosenthal



BREAKOUT SESSION:

Bereavement Workshop-Closed
session for OestoWarrios only

William Pirl, MD, MPH

9:20-10:30

Supporting Patients and Families

William F. Pirl, MPH

*University of Miami Sylvester Comprehensive
Cancer Center, Psychiatry & Neurology*

Coping Mechanisms & Moving Forward
OsteoWarriors Majorca

Current Understanding and Future Trials in

Osteosarcoma, Moderator: **Matteo Trucco, MD**

9:40 ●

Medical: Adult

Jonathan Trent, MD, PhD

*University of Miami, Sylvester Comprehensive
Cancer Center, Co-Director Musculoskeletal Center,
Sarcoma Medical Research Program*

Adults: Current Therapy and Ongoing
Trials for Osteosarcoma

10:05 ●

Medical: Peds

Marina Neyssa, MD

*Stanford University School of Medicine,
Assoc. Prof, Pediatric Hematology/Oncology*

Peds: Current Therapy and Ongoing
Trials for Osteosarcoma

10:30-10:45 BREAK

10:45 ●

Osteosarcoma Registry

**& Zach Sobiech Osteosarcoma Research
Fund Clinical Trial**

Logan Spector, PhD

*University of Minnesota, Masonic Cancer
Center, Asst. Prof. of Peds, Div. of Epidemiology/
Clinical Research*

Branden Moriarty, PhD

*Assistant Professor, Department of Pediatrics,
Division of Hematology and Oncology*

Online Portal to the Biology of Osteosarcoma
(BOOST) Registry and Biobank & ZSOF
Clinical Trial

● GRANADA
BALLROOM

● ALHAMBRA
BALLROOM

● GRANADA
TERRACE

11:10 ●

Peds Trials

Damon R. Reed, MD

Johns Hopkins, All Children's Hospital,
Pediatric Hematology-Oncology
The Sunshine Project and Others

11:35 ●

Adult Trials

Breelyn Wilky, MD

University of Miami Sylvester Cancer
Center, Internal Medicine, Hematology-
Oncology
The Future of Trials in Osteosarcoma

12:00

Panel Discussion and Q&A Panel:

**Trent, Marina, Spector, Reed,
Wilky**

12:20-1:30 ● LUNCH

12:25

Remarks: **Venkataraman**

Ramachandran, MD

Pediatric Surgery,
University of Missouri

Patient Advocate Session,
Moderator: **Ann Graham**

1:35 ●

Fund Management

Laura Sobiech

Zach Sobiech Osteosarcoma Research
Funds, Community Outreach
Coordinator- Children's Cancer
Research Fund

Genesis of the Zach Sobiech
Osteosarcoma Research Fund to Today

1:50 ●

Fund Management

John Hallberg

Mr. Hallberg is the CEO of Children's
Cancer Research Fund
Fund Management of Children's
Cancer Research Fund and the
Osteosarcoma Research Project

2:05 ●

Advocacy

Janet Panoch

Adjunct Faculty at Ivy Tech, OsteoMom
Patient Perspective

2:30 ●

Fundraising

Ellen Spear

President, Phoebe's Friends
Fundraising for Research

2:50 ●

Awareness

Jonathan Agin

General Counsel for cc-TDI, Executive
Director at Max Cure Foundation
Guilty as Charged: Opportunities
from Miami and Beyond

3:15 ●

Panel Discussion and Q&A Panel:

**Sobiech, Hallberg, Panoch,
Spear, Agin**

3:35-3:50 ● BREAK

Thinking Outside the Box, Moderator:

Peter Anderson, MD

3:55 ●

Obstacles We Are Facing

Charles Keller, MD,

Scientific Director, cc-TDI, Co-Founder
First Ascent Biomedical, COG Soft
Tissue Sarcoma Committee
What Research is Needed to Find a
Cure for Osteosarcoma?

4:25 ●

Learning from Other Cancers

Ronan Swords, MD, PhD

University of Miami, Sylvester
Comprehensive Cancer Center, Asst. Prof
of Medicine, Co-Chair Clinical Research
Svc, Member Phase I Clinical Trials,
MOET Program
Are There Advances in Other More
Common Cancers That Can Be Applied
to Osteosarcoma?

4:45 ●

Clinical Trial Design

Robert Benjamin, MD

MD Anderson, Professor and Chairman,
Department of Sarcoma Medical
Oncology
Are There New or Better Approaches
to Clinical Trial Design?

5:05 ●

Panel Discussion and Q&A Panel:

**Keller, Swords, Benjamin,
Beech, Trent**

5:45 ●

Concluding Remarks

Jonathan Trent, MD, PhD

University of Miami, Sylvester
Comprehensive Cancer Center, Co-Director
Musculoskeletal Center, Sarcoma Medical
Research Program
Summary of Conference

5:50 ●

Concluding Remarks

Ann Graham & Theresa Beech

MIB Agents President,
MIB Agents Senior Research Advisor
Looking Forward- Grant Target
Funding
End of Conference

sponsors



Quad W Foundation, QuadW.org



Zach Sobiech Osteosarcoma Research Fund
ChildrensCancer.org/Zach



Foundation One, FoundationOne.com



Live Like Bella, LiveLikeBella.org



Fleet Feet Sports, Gaithersburg, MD
FleetFeetGaithersburg.com



Mohan Anand, Friends & Family



Twin Farms Resort, Barnard, VT
TwinFarms.com



The Friends and Family of Daniel Garcia Beech
Donorbox.org/Daniel



Jasper & Prudence Floral & Event
JasperandPrudence.com



Kelsey Montague Art
KelseyMontagueArt.com



Mindy & Randy Levine



The League Of Extraordinary Miami Women



St. Baldrick's, StBaldricks.org



The Jeffries Family



Nuage Designs, NuageDesigns.com

MIB Agents is immensely grateful to the benevolent individuals, non profit organizations and businesses who have contributed financially to this conference. They have given of their treasure to make it better for those who are suffering. What more noble thing is there on earth?

Please join us in thanking them when you see them.

Research Sponsors

Daniel Garcia Beech Osteosarcoma Research Fund,



Austin Cohen Research Fund,



Clayton Laopus, Friends & Family



Ian Vallejo, Friends & Family,



thank you!

Gratitude can transform common days into thanksgivings, turn routine jobs into joy, and change ordinary opportunities into blessings.

—William Arthur Ward

 There are many hands that created this conference. Since we are a 100% volunteer non profit organization, we rely on the kindness and generosity of people to help us Make It Better. Every single person on this list had a meaningful impact on the shape of this conference. They have used their powers for good and we are grateful.

- ▶ The University of Miami
Sylvester Comprehensive
Cancer Center Team
- ▶ The doctors, researchers and
scientists who have shared your
time and expertise with us, the
osteosarcoma community. For
dedicating your lives to Making It
Better for kids fighting the most
nefarious evildoer of all, cancer.
- ▶ Deborah Hayn / Graphic Designer,
conference program, in honor of
OsteoAngel Clayton Laupus.
- ▶ Becky Tyre / Website Proofreader
- ▶ Briana Paronto /
FACTOR Flyer Graphic Designer
- ▶ Ric Callahan / Videographer
- ▶ Lisa McCaffrey / Name Tags,
Lanyards & Ribbons
- ▶ Bob Brounley / Musician
- ▶ Jack Kessler, Florida Youth
Symphony / Violinist:
- ▶ Rev. Hector Figuero / Blessing

Design Team

- ▶ Tedd Kapinos / Jasper & Prudence
Floral & Event
- ▶ Mark Atkins / Jasper & Prudence
Floral & Event
- ▶ Lauren Fish / Jasper & Prudence
Floral & Event
- ▶ Nüage Designs / Linens, Furniture
and accessory rentals

Registration Team

- ▶ Mary Kedzie / OsteoWarrior
- ▶ Brooke Kedzie / OsteoWarrior
Daughter
- ▶ Lilliene Brown / OsteoWarrior
- ▶ Laura Chlopecki / MIB Agent

The Miami Task Force

- ▶ Dr. Scott & Joanna Segal
- ▶ Leslie Parish
- ▶ Roberta Segal
- ▶ Susanne Birgragher, Liaison Events
- ▶ Lisa Segal Mintz
- ▶ Neha Aitharaju, Medical Student,
and FACTOR Transcriber

The League Of Extraordinary Miami Women

- ▶ Gigi Jeffries
- ▶ Caryn Lubetsky
- ▶ Joey Chancis
- ▶ Jenine Howard

The FACTOR Team

- ▶ Jonathan Trent, MD, PhD / Advisor
- ▶ Matteo Trucco, MD / Advisor
- ▶ Mohan Anand / Project Manager
- ▶ Theresa Beech / MIB Senior
Research Advisor
- ▶ Liz Vallejo / A Team and Volunteer
Coordinator
- ▶ Clare Reilly / Angel Wall
- ▶ Maureen Smart / Osteosarcoma
Patient Guidebook
- ▶ Laura Faught / MIB Board Member
& FACTOR Budget
- ▶ Ronee Cowen / Question Agent
- ▶ Thomas Cowen / Osteosarcoma
Patient Guidebook
- ▶ Miriam Cohen / Fundraiser
- ▶ Linda Kennington / Photographer
- ▶ Casey Crossan / Appreciation Agent

The FACTOR Volunteers

Most of all, thank you to MIB Agent Superhero Extraordinaire, John Graham, whose brilliant support, encouragement and counsel is the force for good that Makes It Better every single day for MIB's Agent-In-Charge.

mohan

Thank You Commander Mohan N. Anand (*Retired*), PMP



Noblesse oblige is a French phrase literally meaning "nobility obligates". It denotes the concept that nobility extends beyond mere entitlements and requires the person who holds such status to fulfill social responsibilities, particularly in leadership roles.

Mohan has been the Project Manager for the FACTOR Conference from the start. He has been a driving force in building of this conference on every level. Mohan raised the majority of the funding for this conference from his friends, family and personal resources. His generosity allowed many of the families to be here as well as some doctors and scientists who did not have funding available.

More than Mohan's profound and meaningful support of FACTOR, he gave of himself. He worked through the painful, and at times overwhelming side effects of this relentless disease.

Throughout his life of service and his commitment and care of this osteosarcoma community, he demonstrated vision, fortitude and an unwavering loyalty to Making It Better. He made sure this conference happened knowing that what good may come of it would likely not benefit him directly. Noblesse Oblige.

Commander Mohan N. Anand, PMP is an Indian Navy veteran of 20 years. He subsequently worked as a project manager in India, USA and Canada.

In the Navy, he was a specialist in navigation and operations. He served afloat for 13 years in different types of ships including amphibious ships, frigates, destroyers and aircraft carriers. He held key assignments at Naval Headquarters as commander of the naval war room, in planning operations and in naval intelligence. He was involved in setting up and managing anti-piracy operations in the Indian Ocean region, including in the waters off Somalia. He played a key role in the capture of a Japanese merchant ship, MV Alondra Rainbow, in the Arabian Sea, that was hijacked by pirates. He has coordinated disaster relief in major natural disasters; 1999

super hurricane off the East coast of India, 2000 earthquake on the west coast of India. He attended a year-long Naval course in Jakarta, Indonesia.

As a young Lieutenant, from 1988-90, he was ADC [Aide-de-Camp] to the President of India. He accompanied and helped conduct the itinerary of the President in India and overseas. He also served as liaison officer to visiting heads of state like Mikhail Gorbachev [USSR], Francois Mitterand [France], Bob Hawke [Australia], the King of Bhutan and the late PLO Chairman Yasser Arafat.

Post naval career, he was part of the leadership team of a top accounting software company in Bangalore, India, Tally Solutions. He headed the HR, project management and corporate planning departments for 3 years. Subsequently, in 2007, he moved to the US with his family, where he worked as an IT project manager in Troy, MI, San Francisco and Seattle for companies

like Delta Dental and Microsoft. He is now a resident of Vancouver, Canada.

During his post Naval career, he faced some health challenges. In 2005, he was treated with radiation and R-CHOP chemotherapy for a stage 4, Non-Hodgkin's Lymphoma of the bone, which is under remission till now. In 2013, when in Canada, he was diagnosed with a radiation induced high grade osteosarcoma on his left shoulder. He was treated with chemotherapy and limb salvage surgery. In mid-2014 bilateral lung metastases were detected due to which he has been on different treatment regimens like SBRT [Cyberknife], Sorafenib, Afinitor, Gemcitabine and an immunotherapy clinical trial with Keytruda. He is currently on Pazopanib.

Mohan is an avid tennis player and also loves to sail, play golf and run. He has a 24 year old son who is a mechanical engineer from UBC and works at Calgary, AB.

warriors

We are so grateful to the League of Extraordinary Miami Women for creating the OsteoWarriors Headquarters. A GIANT thank you to The Jeffries Family for their generosity in making this gathering of OsteoWarriors, including siblings of survivors and angels, such a wonderful experience of fun, chilling out and learning.

Thursday, Feb 23

6:00-8:30

Dinner and Ice Cream Sundae Ice Breaking Party followed by a scavenger hunt / [OsteoWarriors HQ](#)

Friday, Feb 24

9:00-9:40

Workshop with Zoe Panoch Starky / [Majorca](#)

10:00-12:00

Cooking Lesson / [Biltmore Culinary Academy](#)

12:30-3:30

Pool party and lunch by the pool / [Cabana Suites 8 and 9](#)

4:00-7:00

Free time and Video gaming / [OsteoWarriors HQ](#)

6:30-9:00

Dinner, movie and snacks / [Merrick Room](#)

Saturday, Feb 25

9:20-10:30

OsteoWarriors in General Session / [Granada](#)

11:00-12:30

Cake/Cupcake Decorating class lead by Rebekah Brooks / [OsteoWarriors HQ](#)

12:30-2:00

Girls will get make-up done in preparation for the photo shoot / [Deering Room](#)
(Boxed lunch)

12:30-2:00

DJ Lessons / [OsteoWarriors HQ](#)
(Boxed lunch)

2:00-4:00

Professional photo shoots on grounds of Biltmore

4:00-6:00

Free time and video gaming / [OsteoWarriors HQ](#)

6:00-8:30

Pizza Party, Entertainment, and Closing Ceremony / [OsteoWarriors HQ](#)

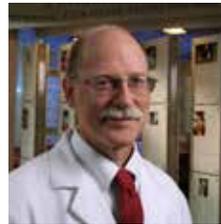


Jonathan Agin, JD

General Counsel for Children's Cancer Therapy Development Institute, Executive Director at Max Cure Foundation

■ ***Guilty As Charged: Opportunities From Miami And Beyond***

Jonathan Eric Agin, JD, became involved in the childhood cancer community following the diagnosis of his daughter Alexis at the age of two with DIPG in April 2008. Alexis battled heroically for thirty-three months until January 14, 2011. Jonathan is a licensed attorney and a former civil defense trial lawyer from Washington DC. He resides in Falls Church, Virginia and has four children, Alexis (1-31-06 to 1-14-11), Gabriel age 7, Trevor age 4 and Kylie 2 years. He was recently nominated for and appointed to the National Cancer Institute brain malignancy steering committee and will serve in this role as a patient advocate and will also participate on the patient advocate steering committee at the National Cancer Institute. In addition he is the section editor for the Cancer Knowledge Network (Canadian oncology journal), frequent contributor to the Huffington Post, and frequent presenter for community health care platform Brightbod. He has testified before the United States congress on issues of identity theft impacting the childhood cancer community, which ultimately led to the introduction of bipartisan legislation named after his daughter Alexis (HR 2720, the Alexis Agin identity theft protection act of 2013). He was selected to provide public comment before the FDS pedODAC committee on the topic of biopsy in children with DIPG (an inoperable and almost universally fatal pediatric brain tumor), and has been a featured presenter and panelist at numerous conferences and symposiums. Jonathan is an original founding steering council member of the DIPG collaborative. He maintains his own website for his advocacy activities: www.jonathanagin.com and can be followed on twitter @jonathanagin.



Peter Anderson, MD

Cleveland Clinic Children's/ Taussig Cancer Institute/ Case Comprehensive Cancer Center

■ ***Moderator: Thinking Outside the Box***

Dr. Anderson is an Assistant Professor at Cleveland Clinic in the Department of Pediatric Hematology/ Oncology/ BMT with prior appointments at Levine Children's Hospital, MD Anderson, and the University of Minnesota. Dr. Anderson's current projects include better use of 223-Ra, EWS VIGIOL vaccine (GM-CSF engineered); novel interventional radiology techniques for local control and ONC201 (Investigator initiated clinical trial-IND 132665) low toxicity novel oral agent that increases TRAIL in cancer cells, but not normal cells.



Theresa Beech

MIB Agents Senior Research Advisor

■ **Who Will Tell Our Story?**

Professionally, Theresa has 20 years of experience as a space engineer designing satellite mission ground systems. She is the President, CEO and Chief Engineer of MetiSpace Technologies, and provides subject matter expertise in satellite ground systems to a variety of US government agencies including NASA, NOAA and the DOD.

Theresa is the single mother of two children, Daniel and Sara. At the age of 11, Daniel was diagnosed with osteosarcoma. His disease did not respond to chemotherapy and relapsed. When Daniel was terminal, Theresa started investigating the genomics of his tumor, desperately searching for something to help him. Teaching herself cell biology, genetics, and osteosarcoma while caring for Daniel at home, she identified 3 drugs which targeted Daniel's tumor mutations and convinced Daniel's doctors to try them. During the almost six months in which Daniel was terminal, he learned how to walk on his prosthesis, went back to school, saw Sara graduate, and hung out with friends and family. Daniel died from osteosarcoma on August 28, 2016.

While caring for Daniel, Theresa started receiving questions from other osteosarcoma parents regarding tumor genetics. Through a fortuitous series of events, Theresa received a de-identified pediatric osteosarcoma tumor genetics dataset of 63 tumors from Foundation One. Using this along with the data provided by parents, Theresa carried out statistical and pattern recognition analyses of osteosarcoma genetics.

Theresa has discussed the results of her analysis with osteosarcoma doctors, researchers, parents and patients around the US. She is involved in brainstorming and strategizing new approaches to treating osteosarcoma and how to translate this into clinical trials.

Osteosarcoma outcomes are poor and have not improved in 30 years. Fewer than half will survive long-term. No child should suffer as Daniel did, and no family should grieve the death of a 13 year old child.



Robert Benjamin, MD

MD Anderson, Professor and Chairman, Department of Sarcoma Medical Oncology

■ **Are There New Or Better Approaches To Clinical Trial Design?**

Dr. Robert Benjamin is a medical oncologist in Houston, Texas and is affiliated with University of Texas MD Anderson Cancer Center. He received his medical degree from NYU School of Medicine and has been in practice for more than 20 years. In 2008 he was awarded the nobility in science award from the Sarcoma Foundation of America, SARC.



Sheila Conway, MD

University of Miami Sylvester Comprehensive Cancer Center, Orthopaedic Surgery

■ **Moderator: Surgical Session**

Dr. Sheila Conway is a fellowship trained orthopaedic oncologist working closely with a multidisciplinary group of physicians to provide the highest quality of care to patients with benign and malignant musculoskeletal disease. She is committed to the comprehensive care of adult and pediatric patients with bone and soft tissue sarcomas, metastatic disease, and benign neoplasm of bone and soft tissue.



Ann Graham

MIB Agents, Founder & President

■ **Looking forward / Grant Target Funding**

Ann's interest in Pediatric Oncology began when, at age 43 she was diagnosed with a pediatric cancer, osteosarcoma, and was subsequently treated in the Pediatric Cancer Center at Memorial Sloan Kettering Cancer Center. She was awed and inspired by the courage and cheerfulness of her fellow patients every day. Like most adults, she was unaware how little funding pediatric cancers receive, how great the suffering is, and how all too often the littlest patients lose limbs, fertility, hearing, organ function and their lives to cancer. She began MIB Agents in 2011 when fellow osteo patient, Alyssa Divers was sent home on Hospice for her same cancer. Ann rallied her friends to create an extraordinary experience for Alyssa and her family in her last weeks of life. She continues this work for osteosarcoma patients with her 100% volunteer nationwide non profit organization, adding the first ever osteosarcoma research conference because of Daniel, whose MIB wish was that no other child should suffer as he did, Daniel even helped fund it asking friends and family to donate to MIB Agents. Daniel Garcia-Beech passed away in August at age 13. The goal of Ann and MIB Agents is to Make It Better (MIB) for kids with this disease through direct patient support, end-of-life experiences and by funding osteosarcoma research.

Prior to being diagnosed with osteosarcoma, Ann was the Director of Sales & Marketing for a Relais & Chateaux Hotel, the Lake Placid Lodge. She also owned a floral & event design company with publication credits in Martha Stewart Weddings, Brides and Vogue. She has planned events for Lexus, Associated Press, Redken and many celebrities. Ann is originally from Hawaii and has been married to John for 29 years. They have three daughters.



John Hallberg

CEO Children's Cancer Research Fund

■ **Fund Management of Children's Cancer Research Fund and the Osteosarcoma Research Project**

John Hallberg has served as Chief Executive Officer of Children's Cancer Research Fund since late 2006. Children's Cancer Research Fund is one of the nation's largest private funders of pediatric cancer research, and since its inception in 1981 has provided over \$80 million in childhood cancer research and other program funding to the University of Minnesota. This support has helped the University of Minnesota Masonic Cancer Center be recognized as a comprehensive cancer center by the NCI and has also helped the University of Minnesota Masonic Children's Hospital achieve a top ranking for pediatric cancer care.



John Healey, MD

Memorial Sloan Kettering Cancer Center, Chief, Orthopaedic Service

■ **Current and Future Surgical Approaches to Optimize Local Control and Bone Metastasis**

Through decades of experience Dr. Healey has been diagnosing and treating sarcomas and benign tumors of the bones and soft tissue using surgery to remove tumors while preserving limbs. He is rebuilding functional bones and joints with joint replacements and bone transplants. Dr. Healey's team has a missionary zeal to treat people with cancer and to help them continue to have productive lives.

Healey's team has a special interest in treating children who have bone cancers (osteosarcoma and Ewing sarcoma). With continued progress in curing these cancers, it becomes even more important to be able to reconstruct limbs to provide patients with optimal long-term function.

Research interests include understanding the molecular biology of sarcoma, developing new ways to deliver chemotherapy to tumors, and improving the durability and function of joint replacements. Dr Healey has invented and developed four different joint replacement systems and have patented several methods to deliver drugs to tumors and to study cancers in the laboratory.

In addition to his role as Chief of the Orthopaedic Service at Memorial Sloan-Kettering, Dr Healey is a Professor of Orthopaedic Surgery at Weill Cornell Medical College. Nationally, he has served as Chair of the Children's Oncology Group Orthopaedics section, as President of the International Society of Limb Salvage, President of the Association of Bone and Joint Surgeons, and on the boards of several musculoskeletal and orthopaedic organizations. Dr. Healey is an advisor to the National Comprehensive Cancer Network.



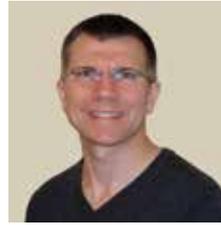
Rosandra N. Kaplan, MD

*NIH, NCI Investigator Pediatric Oncology Branch,
Head of Tumor Microenvironment section*

■ **Lessons from Targeted Therapy Trials and Plans for the Future**

Dr. Kaplan is a physician scientist who developed the concept of the pre-metastatic niche describing the changes in distant microenvironments in response to a growing tumor that create a niche environment conducive to disseminating tumor cell survival and growth resulting in clinically relevant metastasis. Dr. Kaplan has an active translational research program focusing on developing novel biomarkers and targets of the metastatic microenvironment by understanding the commonalities in mechanisms employed by a cancer cell to generate an entire heterogeneous tumor at distant sites and stem cells and their niche to repopulate tissues.

Dr. Kaplan has been the recipient of several grants including the Charles, Lillian and Betty Neuwirth Clinical Scholar in Pediatric Oncology, Doris Duke Charitable Career Development Award, a co-investigator in the Komen Foundation Investigator-Initiated Award, Hope Street Kids grand award, ASCO young investigator award, and the Association for Research of Childhood Cancer.



Charles Keller, MD

Scientific Director, cc-TDI, Co-Founder First Ascent Biomedical, COG Soft Tissue Sarcoma Committee

■ **What Research is Needed to Find a Cure of Osteosarcoma?**

Charles's research focuses on the development of more effective, less toxic therapies for childhood cancers. His special interest is advanced disease that has spread beyond the initial location of the cancer. Charles is a member of the soft tissue sarcoma (STS) committee of Children's Oncology Group, and recently completed a 5-year rotation as a Standing Member of the National Cancer Institute NCI-I Study Section. Charles attended Tulane University where he received a degree in Biomedical Engineering prior to attending Baylor College of Medicine where he received his M.D. degree. After completing his internship and residency in Pediatrics at Texas Children's Hospital, Charles trained in Pediatric Hematology-Oncology at the University of Utah and with 2007 Nobel laureate, Mario Capecchi. Charles has authored over 80 scientific publications and is a recognized expert in the biology of childhood sarcomas and the preclinical investigation of childhood cancers. Charles is also a co-founder of First Ascent Biomedical, a company developing personalized medical approaches to therapy for canine and human solid tumor patients.



Darcy Kerr, MD

University of Miami Sylvester Comprehensive Cancer Center, Associate Professor of Clinical Radiology

■ **Current and Future Imaging Modalities for Diagnosis**

Darcy Kerr, Assistant Professor at the University of Miami Miller School of Medicine, is a graduate of Dartmouth's Geisel School of Medicine and trained at Massachusetts General Hospital. Dr. Kerr completed residency in Anatomic Pathology and fellowships in Bone & Soft Tissue and Head & Neck Surgical Pathology as well as Cytopathology. Her research interests include understanding and predicting tumor biology, in particular bone-forming and cartilaginous tumors as well as HPV-driven head and neck carcinomas. She is also interested in improving pathology services in developing settings and has engaged in multiple projects in East Africa.



Chand Khanna, DVM, PhD

NIH, Senior Scientist, Research Biology and Treatment of Metastasis

■ **What are the Best Animal Models of Osteosarcoma?**

Chand Khanna, DVM, PhD completed his veterinary training at the Western College of Veterinary Medicine in 1991. He then received specialty training in the fields of veterinary internal medicine and oncology first at the Ontario Veterinary College, University of Guelph and then the University of Minnesota. Dr. Khanna is a Diplomate of the American College of Veterinary Internal Medicine (Oncology). Following this clinical specialization Dr. Khanna received a PhD in Pathobiology from the University of Minnesota and then a post-doctoral fellowship at the National Cancer Institute in Bethesda Maryland.

Dr. Khanna received full tenure as a Senior Investigator while he was the Head of Pediatric Oncology Branch's Tumor and Metastasis Biology Section, and Director of the Center for Cancer Research, Comparative Oncology Program. His research interests and responsibilities focused on the problem of cancer metastasis and the development of new options to treat patients with metastasis. Dr. Khanna is an active clinician within his referral oncology practices, The Oncology Service, LLC, based in the greater Washington DC area. To deliver on his interest to "change the biology of disease" Dr. Khanna recently joined Ethos Veterinary Health as Chief Science Officer and Ethos Discovery as President. Dr. Khanna is the immediate past President of the American College of Veterinary Internal Medicine in Oncology, a founding member of the Canine Comparative Oncology and Genomics Consortium, and a 2015 Honorary Diplomate of the American College of Veterinary Pathology.

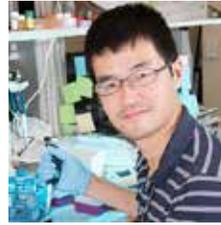


Eugenie Kleinerman, MD

University of Texas, MD Anderson Cancer Center

■ **Understanding the Biology of Metastases to Develop Therapeutic Approaches**

Eugenie S. Kleinerman has an international reputation in sarcoma research and the development of novel therapeutic approaches. She identified a new immunotherapy, which led to the Phase I, II & III trials, resulting in the drug's approval by the EMA in 2009. She is pursuing new therapies that target the tumor microenvironment to combat osteosarcoma and Ewing's sarcoma metastases and is pioneering aerosol administration to deliver these therapies into the lungs. Dr. Kleinerman showed that the FAS/FasL pathway plays a critical role in osteosarcoma metastasis to the lung, that the pathway can be therapeutically targeted and that Fas expression is controlled by the mi-R-17-92 cluster. She is the first to show that EWS-FLI-1 and Notch control vasculogenesis in Ewing's sarcoma. She received the Distinguished Medical Alumnus Award from Duke University, the Faculty Achievement Award for Clinical Research and Distinguished Alumni Award from Washington University.



Fan Lai, PhD

University of Miami, Molecular Biology, Human Biology, Cell Biology

■ **Current Understanding and Future Direction of Epigenetics in Osteosarcoma: Therapeutic Opportunities**

Dr. Lai is interested in understanding molecular function of RNAs and RNA interacting proteins in human. Except coding function of messenger RNAs, from enormous researchers around the world, we now know there are thousands of RNAs functioning beyond the central dogma. His approach is to apply multiple high-throughput sequencing methods for identification of functional RNA molecules in human development and disease. Moreover, Dr. Lai's expertise on protein biochemistry provide him with another powerful tool to characterize real function of the RNAs through their binding/associated proteins.



Patrick Leavey, MD

*UT Southwestern Medical Center,
Director AYA Cancer Program*

■ **Development of a Computational Tool to Interpret Osteosarcoma Response to Chemotherapy**

Patrick Leavey graduated from the Royal College of Surgeons in Ireland in 1986. He did residency training in Ireland and in Perth, Western Australia before coming to the US to for pediatric hematology/oncology fellowship training at The Children's Hospital Denver and University of Colorado Health Sciences Center in 1992. Dr. Leavey worked in the lab of Daniel Ambruso, M.D. on projects related to the influence of G-CSF on granulocyte function and the exploration and identification of a novel neutrophil cytosolic protein.

Dr. Leavey joined the pediatric faculty at UT Southwestern Medical Center in 1998 where he is currently a Professor of Pediatrics and the Associate Medical Director for Clinical Affairs for the Pauline Allen Gill Center for Cancer and Blood Disorders at Children's Health Dallas, Texas.

During his years of training Dr. Leavey became a member of the Royal College of Physicians of Ireland, a Fellow of the Royal Australasian College of Physicians and a Diplomate of Child Health from the National University of Ireland. He was granted a Doctorate in Medicine from the National University of Ireland. He is also subspecialty board certified in Pediatric Hematology/Oncology by the American Board of Pediatrics.

Currently Dr. Leavey is Vice President of the board of Trustees for the American Society of Pediatric Hematology/Oncology and the Secretary Treasurer for the Council of Pediatric Subspecialties. He is study chair for the Children's Oncology Group AEWS1031, Randomized Phase III study for patients with newly diagnosed Ewing Sarcoma, principal investigator for a CPRIT funded Texas-wide Pediatric Sarcoma Bio-specimen Banking study and principal investigator for a CPRIT funded study using computational systems to study tumor necrosis in Osteosarcoma.



David M Loeb, MD, PhD

Johns Hopkins, Kimmel Associate Professor- Oncology & Pediatrics, Director of Musculoskeletal Tumor Program

■ **Present and Future Uses of Radiopharmaceuticals for Osteosarcoma**

Dr. Loeb has active laboratory and clinical research efforts. In the laboratory, Dr. Loeb studies a gene called WT1. High levels of WT1 convey a poor prognosis for patients with osteosarcoma and soft tissue sarcomas. Dr. Loeb's laboratory has shown that WT1 expression is regulated, in part, by the amount of oxygen in a tumor, and that low oxygen levels lead to higher WT1 expression, which in turn leads to an increase in the ability of tumor cells to cause new blood vessels to form. The laboratory is studying both the mechanism by which oxygen levels control WT1 expression and the way WT1 regulates blood vessel growth. In a related project, Dr. Loeb's laboratory is working to identify, characterize, and therapeutically target Ewing sarcoma stem cells. Cancer stem cells are thought to be inherently resistant to chemotherapy and are thought to cause most cases of refractory or relapsed disease. In collaboration with the laboratory of Dr. Jonathan Powell, Dr. Loeb has identified one pathway, called the mTOR signaling pathway, that may be important for sarcoma stem cells to resist chemotherapy. This finding prompted the initiation of a clinical trial, led by Dr. Loeb, to test the combination of Doxil, a standard chemotherapy drug, and Temozolomide, an inhibitor of the mTOR signaling pathway, in patients with high risk sarcomas. Future clinical trials, already being planned, will test additional means by which the inherent chemoresistance of these key cells can be overcome, hopefully leading to significant improvements in the survival of patients with recurrent or refractory sarcomas.

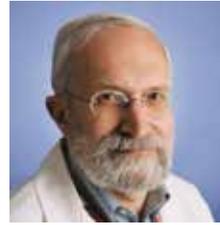


Neyssa Marina, MD

Stanford University School of Medicine, Associate Professor- Pediatric Hematology/Oncology

■ ***Peds: Current Therapy and Ongoing Trials for Osteosarcoma***

Dr. Neyssa Marina is a pediatric hematologist-oncologist in Palo Alto, California and is affiliated with multiple hospitals in the area, including Lucile Salter Packard Children's Hospital at Stanford and Stanford Hospital and Clinics. She received her medical degree from University of Puerto Rico School of Medicine and has been in practice for more than 20 years.



Paul Meltzer, MD, PhD

National Institute of Health, National Cancer Institute. Center for Cancer Research Chief, Genetics Branch

■ ***The Osteosarcoma Genome***

Dr. Meltzer is a leader in the application of genome science to cancer research. His recent studies investigate the genetic and epigenetic basis of cancers in adult and pediatric patients, particularly those with bone and soft tissue sarcomas. Dr. Meltzer's long-term goal is to improve diagnosis and therapy through better understanding of the mechanisms driving tumor growth.

As Branch Chief, Dr. Meltzer oversees a program focused on the mechanisms and consequences of genome instability, non-coding RNA biology, and translational genomics. Developing applications of genome technologies for the oncology clinic is an important priority within the Branch. His areas of expertise include cancer genomics, cancer genetics, sarcoma, pediatric oncology, genome technology, and epigenetics.



Lisa Merheb, LCSW

University of Miami Sylvester Comprehensive Cancer Center

■ Coping Mechanisms, Counselling for Bereaved Parents Only

Lisa Merheb is the Director of Social Work at the University of Miami Sylvester Comprehensive Cancer Center and has been working with cancer patients and their families for the last 6 years. She has presented at many conferences such as the GIST day of Learning, and the Sarcoma Foundation of America. She is Licensed in the State of Florida and has been practicing as a social worker for 18 years. Her Bachelor's degree is in Music Therapy from the University of Miami and has her Master's degree is in Social Work from Barry University. Lisa is very involved with the Sarcoma team at Sylvester and is passionate about helping people.

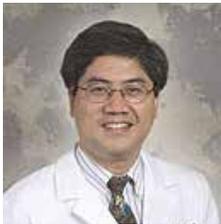


Branden Moriarity, PhD

Assistant Professor, Department of Pediatrics, Masonic Cancer Center, Center of Genome Engineering University of Minnesota

■ Online Portal to the Biology of Osteosarcoma (BOOST) Registry and Biobank & ZSOF Clinical Trial

Main research interests are pediatric cancer genetics, immunotherapy, and gene therapy. Dr. Moriarity was drawn to the field of pediatric cancer as it is understudied and effects such a critical patient population. He performed a SB screen for osteosarcoma development and metastasis and assisted in screens for medulloblastoma and malignant peripheral nerve sheath (MPNST) tumors. The genes and genetic pathways identified through these screens are then used as a focused list for comparative genomics analysis with data generated from human pediatric tumor samples. From these data identification of top candidates to investigate further using human cell lines, xenograft models, and patient derived xenografts (PDX). In order to most accurately and rigorously test these candidates, Dr. Moriarity has developed cutting edge genome engineering using programmable nucleases. He has previously implemented both the CRISPR/Cas9 and Transcriptional Activator-Like Effector (TALEN) systems to knockout genes, induce targeted sequence changes, and activate and/or repress endogenous gene expression.



Dao Nguyen, MD

*University of Miami Sylvester Comprehensive Cancer Center,
Professor of Surgery and Chief Thoracic Surgery*

■ **Current and Future Approaches to Metastectomy: Open, VATS, Robotic, Other**

Dr. Nguyen is board-certified by both the American Board of Thoracic Surgery and the Royal College of Surgeon of Canada. His research interest focused on experimental therapeutics/targeted molecular therapy for thoracic malignancies (cancers of the lung, the pleura and the esophagus). He joined the division of cardiothoracic surgery, University of Miami in September 2007 as an associate professor of surgery and chief of the section of thoracic surgery. He became professor of surgery (clinical track) in 2010. He has been the holder of the B. and Donald Carlin Endowed Chair for Thoracic Surgical Oncology since 2011.

Since joining the University of Miami, Dr. Nguyen has transformed the section of thoracic surgery to become an independent service line with clear mission and vision of being the best general thoracic surgery service in Florida and beyond. Minimally invasive thoracic surgery (MITS), particularly robotic surgery, has become the standard of care at his institution. Robotic surgery has been performed at UM Hospital since June 2012. Dr. Nguyen was the first few surgeons in the country to use the third generation robotic platform, the DaVinci Xi, for thoracic procedures; the first to use the new integrated EndoWrist staplers. He was also involved with research and development of next generation staplers for the robotic platform. More than 80% of thoracic surgery cases are MIST. Dr. Nguyen is current the co-leader of the Site-Disease Group (SDG) Lung of the Sylvester Comprehensive Cancer Center (SCCC) and presides the Thoracic Malignancy Tumor Conference. He performs many complex thoracic surgical procedures referred to SCCC/UHealth. He collaborates with Dr. Villamizar to develop the malignant pleural mesothelioma program in Florida. His research interest is translational research for new diagnostics as well as therapeutics for lung cancer. His new direction of clinical research is surgical economics and outcomes of robotic lung resections.



Janet Panoch

Adjunct Faculty at Ivy Tech, OsteoMom

■ **Patient Perspective**

Janet's daughter Zoe was diagnosed with OS at age 12 in 2007. After witnessing firsthand the many issues surrounding effective doctor-patient communication, Janet entered a PhD program in Health Communication. She now works with evidence-based models of patient education to teach patients and advocates how to be more actively engaged with healthcare professionals. She also teaches first year medical students at the IU School of Medicine and brings the patient perspective to medical education. Janet will discuss her research in medical education and offer tips on how to engage in shared decision making when partnering with doctors.



Zoe Panoch Starkey

OsteoWarrior, Senior at Purdue University

■ **Coping with Osteosarcoma- AYA OsteoWarriors Only**

Zoe was diagnosed with OS in the left distal femur when she was 12 in 2007. She has experienced multiple side effects from treatment including severe mobility limitations, LSS revision, and heart block that required a pacemaker implant at age 17. Now 22 and a Public Health senior at Purdue University, Zoe rode a bike for the first time last summer since her diagnosis and spent two months in Uganda as an intern. Zoe will describe her journey to mobility and what it's like to negotiate life as an OS pediatric survivor.



William Pirl, MD, MPH

University of Miami Sylvester Comprehensive Cancer Center, Psychiatry & Neurology

■ **Coping Mechanisms & Moving Forward OsteoWarriors**

Dr. Pirl's research mainly focuses on identifying, examining, and intervening on psychological and physical symptoms experienced by patients with advanced cancers. This research has included a range of methods, including large database analyses, molecular correlation studies, and randomized controlled trials. The studies fall under two broad themes: palliative care/end of life (EOL), and oncology provider research.

His palliative care/EOL research has included clinical trials and studies exploring the relationships between depression and worse survival for patients with advanced non-small cell lung cancer. With his research group at MGH, they completed trials of a new model of care, integrating early palliative care into standard oncology care and trials for cancer-related symptoms, such as fatigue, dyspnea, and anxiety. After repeatedly finding associations between depression and worse survival in patients with advanced non-small cell lung cancer, Dr. Pirl has been investigating potential underlying mechanisms for the relationship. He has been studying the relationship between tumor EGFR genotypes and depression, and how patients' depression might influence oncologists' decisions about treatment.

Dr. Pirl has been conducting research on oncology providers with the goal of improving patient care. He conducted a national survey on how oncologists manage psychosocial distress and is currently studying the relationships between oncologists' dispositional affect and the care that they deliver. Dr. Pirl developed and tested psychological skills training interventions for oncology nurses that have decreased work-related stress and medical errors. Dr. Pirl also developed and piloted a resiliency training program for medical interpreters working in cancer centers.



Damon R. Reed, MD

Johns Hopkins, All Children's Hospital, Pediatric Hematology-Oncology

■ **The Sunshine Project and Others**

Dr. Damon Reed is the Director of the Adolescent and Young Adult Program at Moffitt, the Medical Director of the Sarcoma Department at Moffitt Cancer Center and an Assistant Professor of Pediatrics at the University of South Florida. He is also on staff as a specialty physician at All Children's Hospital in St. Petersburg, Florida. He is also the Leader of the Pediatric Cancer Foundation's pediatric phase I consortium, the Sunshine Project. Dr. Reed's research interests include chemotherapeutic approaches to sarcoma in the pediatric and adolescent and young adult population. He is interested in establishing relevant preclinical sarcoma models, establishing and testing biomarkers for targeted therapies and translating predictive testing and combinations of agents towards personalized medicine in sarcoma and other rare cancers. A graduate of Case Western Reserve University School of Medicine in Cleveland, OH, Dr. Reed served a combined pediatric residency program at Boston Children's Hospital-Harvard Medical School and Boston Medical Center-Boston University School of Medicine. He completed his fellowship training in pediatric hematology/oncology at St. Jude Children's Research Hospital. Dr. Reed has received numerous academic awards, including graduating valedictorian from Canfield High School and summa cum laude from the University of Dayton. He received the CWRU Medical Alumni Association Board of Trustees Award for Outstanding Service and Contributions to the School of Medicine and was named to the Alpha Omega Alpha Honor Medical Society. Dr. Reed is a member of several professional associations, including the American Association for Cancer Research, Connective Tissue Oncology Society and American Society of Clinical Oncology. He joined Moffitt in 2008.



Andrew Rosenberg, MD

University of Miami Sylvester Comprehensive Cancer Center, Chief of Anatomic Pathology, Director Bone & Soft Tissue Service

■ **Moderator: Diagnosis Session**

Dr. Rosenberg earned his degree from Temple University School of Medicine and has worked in field for over 30 years. His clinical areas of interest include the pathology of musculoskeletal neoplasms, metabolic bone disease, arthritis, and infection. Rosenberg's certifications include American Board of Pathology-Anatomic and he is the Chief of Anatomic Pathology, Director of Bone and Soft Tissue Service and Professor of Pathology at University of Miami Sylvester Cancer Center.



Howard G. Rosenthal, MD

University of Kansas Medical Center, Assistant Professor Orthopedic Surgery

■ **Prosthetics for Osteosarcoma**

Dr. Rosenthal is an Assistant Professor of Orthopedic Surgery at University of Kansas Medical Center where he also serves on committees for Sarcoma, Surgical Services, Surgical Oncology and Cancer Care. He also is a member of Children's Mercy Cancer Center. Rosenthal is a member of many committees within the American Academy of Orthopaedic Surgeons and Musculoskeletal Tumor Society. He serves as a reviewer and Editorial committee member of Clinical Orthopaedics and Related Research.



Joshua Schiffman, MD

University of Utah, Professor Dept of Pediatrics

■ **Diagnostic Tools and Prevention Strategies for Those at Risk of Osteosarcoma**

Dr. Schiffman received his medical degree from Brown University School of Medicine, completed his Pediatric Residency, Pediatric Chief Residency, and Pediatric Hematology/Oncology Fellowship at Stanford University. He has been an investigator at the Huntsman Cancer Institute since 2008, and a faculty member at the University of Utah since 2009. Dr. Schiffman is board-certified in Pediatrics and Pediatric Hematology-Oncology.

He is currently an Associate Professor of Pediatrics at the University of Utah, an Adjunct Associate Professor in the Department of Oncological Sciences, and is in the Division of Hematology/Oncology at Primary Children's Medical Center. He serves as the Medical Director of the High Risk Pediatric Cancer Clinic at Huntsman Cancer Institute where he cares for children and families with inherited risk for cancer. His specific clinical interests are cancer susceptibility in families, with a focus on the genomic changes necessary for cancer development.

Dr. Schiffman's work in the High Risk Pediatric Cancer Clinic contributed to a landmark study in the field of clinical cancer genetics demonstrating that early cancer surveillance in families with Li-Fraumeni Syndrome significantly improves overall survival. He continues to work with children and families at high risk for cancer development to discover genes that may be targeted for both prevention and treatment of childhood cancer. Dr. Schiffman is also the Education Director for the Program in Personalized Health Care at the University of Utah, where he oversees the teaching of personalized medicine to physicians and their patients.



Laura Sobiech

*Zach Sobiech Osteosarcoma Research Fund,
Children's Cancer Research Fund*

■ **Fund Management of Children's Cancer Research Fund and the Osteosarcoma Research Project**

Laura Sobiech is the author of *Fly a Little Higher*, a book about her son, Zach Sobiech, his battle with osteosarcoma and the enormous success of his song "Clouds." She continues to share Zach's story through speaking and works as a community outreach coordinator for Children's Cancer Research Fund.



Ellen Spear

President, Phoebe's Phriends

■ **Fundraising for Research**

Ellen is the founder of Phoebe's Phriends and proud mother of two-time cancer survivor Phoebe and Hallie, the life-saving bone marrow donor to Phoebe. Her favorite thing is to spend time with her family. Ellen is forever thankful to the community of friends and family whose support was a true inspiration. She is determined to help find a cure.

Ellen is a graduate of Johns Hopkins University and received her MBA from Wharton. She worked at numerous jobs in finance and economics before taking time off to raise her family. She then devoted herself full-time to taking care of Phoebe. She now works part-time and is an advocate for cancer research.



Logan Spector, PhD

*University of Minnesota, Masonic Cancer Center,
Assistant Professor of Pediatrics, Division of
Epidemiology/Clinical Research*

■ **Online Portal to the Biology of Osteosarcoma (BOOST) Registry and Biobank & ZSOF Clinical Trial**

Logan G. Spector's research focuses on the causes of childhood leukemia, hepatoblastoma, and osteosarcoma. He works in collaboration with colleagues and trainees locally, nationally and internationally through the University of Minnesota, Children's Oncology Group and the International Agency for Research on Cancer. In addition, Dr. Spector collaborates with departmental colleagues in endocrinology, cardiology, and neonatology to study other pediatric outcomes. Dr. Spector is Chair of the Children's Oncology Group Epidemiology Committee; a standing member of the NIH Cancer, Cardiovascular, and Sleep Epidemiology Study Section; and an ad hoc reviewer for several journals, including the American Journal of Epidemiology; Cancer Epidemiology, Biomarkers, and Prevention; and Paediatric and Perinatal Epidemiology.

Training and experience: Dr. Spector received his Ph.D. in Epidemiology in 2002 from Emory University, where he conducted his dissertation research on childhood acute lymphoblastic leukemia in conjunction with the Centers for Disease Control and Prevention. After a year as a National Cancer Institute-funded postdoctoral fellow at the University of Minnesota, he joined the faculty as Assistant Professor of Pediatrics in the Division of Epidemiology/Clinical Research at the University of Minnesota.



Ty Subhawong, MD

*University of Miami Sylvester Cancer Center, Associate
Professor of Clinical Radiology*

■ **Current and Future Imaging Modalities for Diagnosis**

Ty Subhawong, M.D. is an Associate Professor of Clinical Radiology at the University of Miami Miller School of Medicine. Dr. Ty Subhawong joined the University of Miami Musculoskeletal Radiology Section in July 2012.

He completed his undergraduate studies at Vanderbilt University in Nashville, Tennessee in 2002, and his medical degree from Vanderbilt University in 2006. He completed radiology residency at the John Hopkins Hospital in Baltimore, Maryland in 2011; during his residency, he trained as a Clinician Scientist in Imaging Research under an NIH grant from July 2009-June 2010. He completed his fellowship in Musculoskeletal Radiology at the Johns Hopkins Hospital in June 2012.

In addition to his clinical, academic and leadership roles, Dr. Subhawong serves as a consultant to FDA on the Orthopaedic and Rehabilitation Panel of Medical Devices Advisory Committee, and has received grant support from the Radiological Society of North America.

Dr. Subhawong holds memberships with the Society of Skeletal Radiology, International Skeletal Society, Radiological Society of North America, and The American College of Radiology. His research interests include musculoskeletal tumor, peripheral nerve, and cartilage imaging.



Alejandro Sweet-Cordero, MD

Stanford University School of Medicine, Associate Professor of Pediatrics

■ **Current Strategies and Future Directions to Individualize Care of Osteosarcoma Patients**

Dr. Sweet-Cordero completed his undergraduate studies at Stanford (BA-Anthropology, BS-Biology), followed by medical school and pediatric residency at UCSF. He then completed clinical training in pediatric oncology at the Dana Farber Cancer Institute and Boston Children's Hospital, followed by a research post-doctoral fellowship under the mentorship of Tyler Jacks at MIT. Sweet-Cordero has been on the Stanford faculty since 2005. He runs a research lab focused on cancer biology with disease interests in pediatric sarcomas and lung cancer. He is a physician-scientist and attends on the oncology service at Packard Children's Hospital.

Dr. Sweet-Cordero has earned the Sidney Kimmel Scholar award from 2006-2008, Clinical Scientist Development Award from the Doris Duke Foundation from 2007-2010, Rita Allen Foundation Scholar Award from 2008-2011, and the Innovative Research Award, SU2C from 2011-2014.



Ronan Swords, MD, PhD

University of Miami Sylvester Comprehensive Cancer Center, Assistant Prof of Medicine, Co-Chair Clinical Research Service, Member Phase I Clinical Trials, MOET Program

■ **Are There Advances in Other More Common Cancers That Can Be Applied to Osteosarcoma?**

Dr. Swords primarily sees patients with myelodysplastic syndromes (MDS), acute myeloid leukemia (AML), acute lymphoblastic leukemia (ALL) and chronic myeloid leukemia (CML). He is particularly interested in novel drug therapies for these diseases. He is also interested in clinical device trials and our recent studies led to the approval of a new and improved technique for bone marrow aspiration and biopsy. Patients attending the clinic can expect multidisciplinary care relating to diagnosis and management, where his goal is to provide a team approach to conventional care treatment, stem cell transplantation and investigational treatment plans.



Jonathan Trent, MD, PhD

University of Miami Sylvester Comprehensive Cancer Center, Co-Director Musculoskeletal Center, Sarcoma Medical Research Program

■ **Moderator: Biology Session**

■ **Adults: Current Therapy and Ongoing Trials for Osteosarcoma**

Dr. Trent is a Professor of Medicine, Co-Director Musculoskeletal Center, Sarcoma Medical Research Program. His clinical interests include bone and soft tissue sarcoma. Trent's clinical research has focused on translational trials with substantial biologic correlates for patients with gastrointestinal stromal tumor, pigmented villonodular synovitis, liposarcomas, desmoid tumor, and more recently his two phase I clinical trials with the isocitrate dehydrogenase (IDH) inhibitor, AG-120 and AG-221, for patients with IDH mutant solid tumors such as chondrosarcoma. Dr. Trent has received awards including Sarcoma Clinician of the Year from The Sarcoma Alliance as well as Outstanding Care Award from The Sarcoma Alliance, from The LifeRaft Group both GIST Clinician of the Year and GIST Humanitarian of the Year. He was nominated as the January educator of the month acknowledging educational roles at M. D. Anderson and the GSBS Young Investigator Award, Connective Tissue Oncology Society Award for Excellence in Research from The University of Texas M. D. Anderson Cancer Center Division of Cancer Medicine.



Matteo Trucco, MD

Assistant Professor, Director of Pediatric Phase 1 Program, University of Miami Sylvester Comprehensive Cancer

■ **Moderator: Radiation & Therapies Session**

■ **Moderator: Current Understanding and Future Trials in Osteosarcoma**

Dr. Matteo Trucco received his training in Pediatric Hematology/Oncology from Johns Hopkins University and the National Cancer Institute and has focused his career primarily on Pediatric Sarcomas and the development of new therapies. As the Director of the Pediatric Phase 1 Program at the University of Miami-Sylvester Comprehensive Cancer Center he seeks to identify novel approaches to treating Pediatric Sarcomas, with a particular interest in targeting sarcomas' metabolism, their hypoxic areas and sarcoma stem cells. He jumped at the opportunity to help bring together researchers, clinicians, patients and advocates as part of the FACTOR conference to stimulate innovation and collaboration to advance the research and treatment of Osteosarcoma.



Claes Wahlestedt, MD, PhD

University of Miami, Associate Dean Therapeutic Innovation, Director of Center for Therapeutic Innovation, Professor Psychiatry & Behavioral Sciences

■ **High-Throughput Assays for Drug Discovery**

Dr. Wahlestedt, an internationally recognized researcher of novel drug therapies for neuropsychiatric disorders and epigenetics, is the Director of the Center for Therapeutic Innovation and Associate Dean for Therapeutic Innovations. Wahlestedt, a founding faculty member and professor of neuroscience and molecular therapeutics at the Florida campus of The Scripps Research Institute, was also a Founding Director of the Center for Genomics and Bioinformatics and a department chair at the Karolinska Institute in his native Sweden. The author of some 200 papers in major scientific journals in his field, Wahlestedt has a long-standing interest in non-protein-coding RNA (epigenetics) and pioneered various uses of antisense RNA, siRNA and small molecules that target RNA. At Scripps Florida, he co-founded CURNA, a spin-off company based on his patent for exploiting a cell's ability to make therapeutic proteins, a discovery that holds promise for potential treatments for such diseases as type 2 diabetes, heart disease, cancer, Alzheimer's and Parkinson's. He spent four years as Assistant Professor in the Division of Neurobiology, Department of Neurology and Neuroscience, at Cornell University Medical College in New York, and was subsequently Adjunct Professor of Biochemistry, Pharmacology and Therapeutics at McGill University in Montreal. He also spent more than a decade directing drug discovery or genomics efforts in the pharmaceutical industry for Astra-Zeneca, Pharmacia & Upjohn, and Pharmacia Corporation.



Breelyn Wilky, MD

University of Miami Sylvester Cancer Comprehensive Center, Internal Medicine, Hematology-Oncology

■ **The Future of Trials in Osteosarcoma**

Dr. Breelyn Wilky is a sarcoma medical oncologist at Sylvester Comprehensive Cancer Center at the University of Miami Miller School of Medicine in Miami, FL. She is part of a large multidisciplinary sarcoma team including medical oncologists, surgeons, radiation oncologists, pediatric oncologists, pathologists, radiologists, and interventional radiologists who work together to provide comprehensive care for sarcoma patients. She spends her time taking care of patients over the age of 18 with all kinds of sarcomas and other bone and soft tissue tumors including desmoid fibromatosis, pigmented villonodular synovitis, gastrointestinal stromal tumors, and giant cell tumor of bone. She is also a translational researcher who conducts and designs clinical trials for sarcoma patients. She also works with laboratory researchers to translate the latest findings from bench research into early phase clinical trials. She is an expert not only in traditional chemotherapy treatments for sarcomas, but also at using modern technology such as gene sequencing and molecular profiling to identify out-of-the-box treatments particularly in targeted therapy. She is also interested in novel immunotherapy approaches including an ongoing dendritic cell vaccine trial for sarcomas.

Dr. Wilky received her undergraduate degree in Biology and Music from Bates College in Lewiston, Maine, and attended medical school at the University of Medicine and Dentistry of New Jersey - Robert Wood Johnson Medical School in Piscataway, New Jersey (now Rutgers Medical School.) She received her MD with Distinction in Research. She then completed the Osler internship and residency in Internal Medicine at The Johns Hopkins Hospital in Baltimore, Maryland, and stayed there to complete her fellowship in Medical Oncology. Her honors and awards include election to the Alpha Omega Alpha honor medical society, and the ASCO/Conquer Cancer Foundation Young Investigator Award in 2012 for her work investigating DDX3 as a novel therapeutic target in Ewing Sarcoma.



Raphael L. Yechieli, MD

University of Miami, Assistant Professor of Radiation Oncology, Associate Residency Program Director

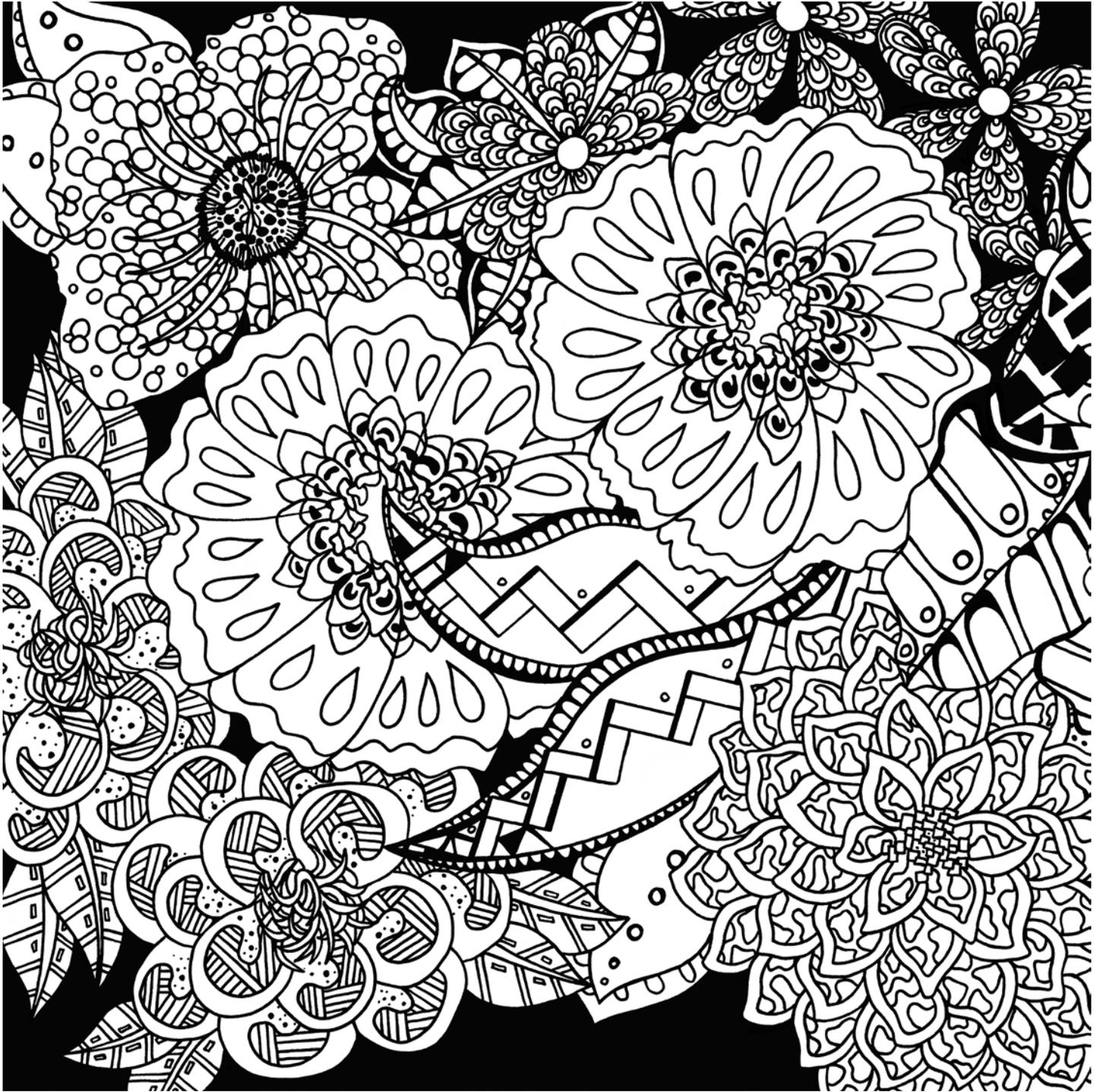
■ ***Proton Therapy Today and Tomorrow***

Dr. Yechieli is an Assistant Professor in the department of Radiation Oncology at University of Miami, Miller School of Medicine. His primary interest is in delivering the best in patient-centered care, by building hope and destroying cancer. Dr. Yechieli earned his medical degree from University of Maryland and has been awarded ACRO Best Essay Scholarship Award, Michigan Radiological Society Resident Research Competition Award, Robert R. R. Roberts MD Memorial Prize in Medicine and Gold Humanism Honors Society.

C O L O R

MIB Agents is so excited to have been gifted this awesome cape for the FACTOR Conference by Kelsey Montague, renowned street and adult coloring book artist. The Cape can be seen in the OsteoWarriors HQ as a movable mural. Kelsey is a classically trained artist from the Paris-Sorbonne University. She creates large scale, interactive street murals around the world. Her art has been featured by *Entertainment Weekly*, Instagram, Taylor Swift, *The Wall Street Journal*, *Forbes*, and MTV.







*"It's not how much we give,
but how much love we put into giving"*

—Saint Mother Theresa

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