



6th Annual Vail Scientific Summit



Advances in Regenerative Medicine

WELCOME

Thank you for joining us for the 6th Annual Vail Scientific Summit, presented by Avanos and hosted by Steadman Philippon Research Institute. On behalf of the organizing committee, it is our pleasure to extend you our warmest welcome to Vail. As we center our meeting on the latest musculoskeletal innovation updates, featuring both basic science and clinical applications, and the international impact on the scientific and clinical communities and enhanced patient care, we aim to inform our attendees about the state-of-the-art research that can improve musculoskeletal health and function and overall Healthy Aging.

We've brought together the most distinguished speakers in a variety of fields of research within the scope of regenerative and personalized medicine for this meeting. The program is designed to facilitate interactions between basic and clinical science researchers and physicians in order to generate new collaborations that will accelerate bench-to-bedside translations, ultimately for the patient care. Throughout the Summit, we aim to build on and inspire novel and cutting-edge research that will set the vision for the future of regenerative and personalized medicine to keep people active and healthy.

This event would not be possible without the generous support from Avanos, family donors and industry sponsorships. Many inspiring individuals had a vision for this event and its ability to have an impact on enhancing people's lives through research, innovation, and education. We are thrilled to see how the Summit has grown in the past five years and we're looking forward to building upon this momentum.

Johnny Huard, PhD Chair - Organizing Committee

Marc J. Philippon, MD Co-Chair - Organizing Committee

ORGANIZING COMMITTEE

Representing Steadman Philippon Research Institute and The Steadman Clinic



Johnny Huard, PhD
Steadman Philippon Research Institute
Chair - Organizing Committee



Marc Philippon, MD
The Steadman Clinic
Steadman Philippon Research Institute
Co-Chair - Organizing Committee



Matthew Provencher, MD

The Steadman Clinic
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Co-Chair - Organizing Committee



Sudheer Ravuri, PhDSteadman Philippon Research Institute
Co-Chair - Organizing Committee

FAMILY SPONSORS

Deirdre and Ronnie Baker

Session D: Musculoskeletal repair after injury, disease and aging: Implication for Therapy | Friday, August 20



After selling both of their companies in the Kansas City area and retiring to ski and play in the mountains, Deirdre and Ronnie Baker are now full-time residents in the Vail Valley. They have spent many years supporting several non-profit charities, both locally and nationally, and are committed to working with organizations that truly make a difference in the lives of people and animals. They feel honored and blessed to be able to

help with Steadman Philippon Research Institute, having both benefited from the exceptional surgical skills, knowledge and cutting-edge research from the doctors within The Steadman Clinic. Special thanks go to Dr. Viola, Dr. Millett and Dr. Karli for their commitment to ensuring the Bakers 100% recoveries and helping them continue their very active lifestyles.



FAMILY SPONSORS CONTINUED

The Borgen Family

Working Lunch - IRB & FDA compliance for orthobiologics/stem cells therapeutics | Saturday, August 21



Bjorn Erikand Kathy Borgenhave made significant contributions to numerous educational, cultural, recreational, and environmental programs here in the Vail Valley. Philanthropy and volunteerism are fundamental values that have been passed on to their children and grandchildren. Committed to family and touched by their own life experiences, they have quietly pursued their commitment to community.

The Borgens have long supported Steadman Philippon Research Institute. As a former research assistant at Harvard University and the University of Colorado, Kathy believes there is no better place to locate cutting-edge orthopaedic research than in an active community like Vail. For Bjorn, giving to education-based initiatives is a value cultivated during his childhood. Born in Norway, Bjorn emigrated to the United States with his family after World War II and credits his schooling with providing endless support and a roadmap for success. His commitment to education was solidified, and he eventually went on to earn an M.B.A. from Harvard Business School and have a very successful career.



Donna Giordano

Session E: Stem Cell/Orthobiologics Banking & Clinical Applications | Saturday, August 21



Donna Giordano has been actively engaged in the philanthropic landscape of the Vail Valley for many years. She has served on the board of directors of the Vail Valley Foundation, Bravo! Vail, and provided a wide array of support for Steadman Philippon Research Institute, Vail Veterans Program, Vail Health, Roundup River Ranch, and Walking Mountains.

Beyond the Vail Valley, Giordano was exceptionally active and served on

the board of directors of the Washington D.C. area Ronald McDonald House. She served on the board of the directors of the Blue Ridge School, and also provided significant support to Craig Hospital.

She has two children, Dawn Force (married to Tim Force), and Jason Giordano; and four grandchildren Sierra, Brittney, Jaxson and Jaidan to whom she has passed on her legacy of philanthropic involvement as a guiding principle of her life.



FAMILY SPONSORS CONTINUED

Linda and Mitch Hart

Keynote Special Session: New Horizon on Healthy Aging "Precision Longevity: Rethinking what it means to Live Long and Prosper" | Thursday, August 19 Session A: Sports and Military Performances | Friday, August 20



LINDA W. HART

Ms. Hart is Vice Chairman, President and CEO of Hart Group, Inc., a diversified group of companies. She is also Vice Chairman of CSIS, a Washington, D.C. nonpartisan public policy research institution. She has served in leadership positions on numerous corporate and charitable boards, including UTSW President's Advisory Board, Southwestern Medical Foundation's Board, the Board of Visitors for UTSW Hospitals

& Clinics, Executive Boards of both SMU Schools of Law and Business, Hart Center for Engineering Leadership and SMU Hart Global Leaders Forum. She is the former Chairman of the NYSE Legal Advisory Board, has been of member of Duke University's Institute of Public Policy, is a member of the Dallas Symphony Association (former Chairman), and Dallas Opera Board. She is a graduate of the University of Pittsburgh and SMU School of Law and, for 25 years, was engaged in private practice as an attorney specializing in corporate finance matters. She served as outside consultant to the U.S. Securities and Exchange Commission and as a Visiting Professor at Stanford Law School.

MILLEDGE A. "MITCH" HART, III

A graduate of the USNA, Mr. Hart – after service in the Marine Corps – began work at IBM. In 1962 he joined Ross Perot as one of the founders of EDS. He became President in 1970, a position he held until his retirement in 1977. Mr. Hart is one of the founders of The Home Depot, where he served on the board of directors and executive committee for more than 30 years. In 1983, Mr. Hart founded Hart Group, Inc., of which he remains Chairman. In 2017, Mr. Hart was awarded the USNA Distinguished Graduate Award, the highest honor the USNA awards to its graduates. Mr. Hart is Trustee Emeritus at both SMU and Duke University, where he started the Hart Leadership Program. He serves on various boards, including the SMU Hart Center for Engineering Leadership, SMU Hart Global Leaders Forum and Baylor Health Care System Foundation Board. Mr. Hart, together with Ms. Hart, founded the USNA Leadership Conference, an annual conference encompassing both military and civilian institutions.

Mary and Steven Read

Session G: Bone and Articular cartilage regeneration and repair | Saturday, August 21



Steven Read attended boarding school in Switzerland from 1958-64. He attended the University of Utah, on a skiing scholarship, from 1965-70. In 1970 he received his undergraduate degrees in International Finance and French.

Read then served in the Special Forces for the United States Army from 1970-1974.

Business:

Co-Founder and Co-CEO of Grocery Outlet, a 300-store chain in eight western states, 3rd generation business and currently on the Board of Directors.

Owner/Partner of Read Investments. A Real Estate Development Company and Family Office in Berkeley.

Read is a current member of the Board of Directors of Steadman Philippon Research Institute (Vail, CO), UCSF Board of Overseers, USSA Ski Team, and the United States Olympic Committee. He is a past Trustee of the Fine Arts Museums of San Francisco, Oakland Museum of California, San Francisco Opera, Duke University, University of California, San Francisco, Head-Royce School (Oakland, CA), and YPO Nor-Cal Chapter Chair.

Read is a member of the Bohemian Club (San Francisco, CA), Pacific Union Club (San Francisco, CA), Claremont Country Club (Oakland, CA), and the Orinda Country Club (Orinda, CA).

Read skies, races cars, golfs, fly fishes and bikes.

Read's family is 5th generation Northern Californian and resides in Lafayette, Ca.

He is married and has three children and eight grandchildren.

FAMILY SPONSORS CONTINUED

Mary Sue & Mike Shannon

Session C: Innovative Technologies for Musculoskeletal Repair | Friday, August 20 & Session F: Biomedical Engineering/Extracellular Matrix/ Musculoskeletal repair and Surgical outcome | Saturday, August 21



Mr. Shannon co-founded KSL Capital Partners, LLC in 2005 and co-founded its predecessor KSL Recreation Corporation in 1992, serving as its President and Chief Executive Officer.

Since 2005, KSL Capital Partners has raised over \$7.4 billion in equity capital commitments and invests exclusively in travel and leisure businesses. Mr. Shannon co-founded and became Chief Executive Officer of KSL Resorts in 2004 following the sale

of KSL Recreation. Prior to establishing KSL Recreation with Kohlberg Kravis Roberts, he served as President and CEO of Vail Associates, Inc. (owner of Vail and Beaver Creek Resorts) in Vail, Colorado, from 1986 to 1992.

Mr. Shannon currently serves on the Board of Trustees of Northwestern University, and as a Board Member of the University of Wisconsin Foundation, the Vail Valley Foundation, the United States Ski and Snowboard Team Foundation, the Eisenhower Medical Center, Steadman Philippon Research Institute and Vail Health Foundation. He also serves on the Mayo Clinic Global Advisory Council. Mr. Shannon is a member of the World Presidents' Organization.



Ann Smead and Michael Byram

Session H: Cancer Therapeutics | Saturday, August 21



Ann and Michael are longtime supporters of many nonprofits in the Vail Valley, including the Steadman Philippon Research Institute. Ann is the Chairman of the Board at the Vail Valley Foundation, and also serves on the board of Vail Health Foundation. Ann's career began at IBM, and she's held senior positions in commercial estate and investment management. After the Berlin Wall fell, she was a leader in bringing

advanced real estate finance and management training to Eastern Europe.

Michael's career included developing high-tech medical patents and he holds over 20 patents. He was CEO of the University of Colorado Foundation 2001-2006. As a Navy officer he was in a life-changing shipboard accident. Through advanced medicine, Vail Health and TSC doctors help him continue to lead a productive life.

Spruance Foundation II

Session B: Interventional Strategies for Healthy Aging | Friday, August 20



As a past resident of Vail, I love returning to this "gem" in the mountains. I first met Dr. Marc Philippon at the 3rd Annual Scientific Summit; he introduced me to Dr. Vinod Jaskula-Ranga, President of Hunterian Medicine, specializing in CRISPR gene editing technology. Having a daughter, Chelsea, with cystic fibrosis made this introduction very fortuitous. Thank you to Dr. Philippon and the team at SPRI!

WELCOME ADDRESS



Johnny Huard, PhD
Steadman Philippon Research Institute



Marc Philippon, MD

The Steadman Clinic
Steadman Philippon Research Institute



Dan DrawbaughThe Steadman Clinic
Steadman Philippon Research Institute

KEYNOTE SPECIAL SESSION: HEALTHY AGING



Johnny Huard, PhD Steadman Philippon Research Institute



Vonda Wright, MD, MSNorthside Hospital Orthopedic Institute Sports Medicine

FEATURED SPEAKERS



Tamara Alliston, PhD University of California, San Francisco Osteocytes in Skeletal Aging and Joint Disease



Chelsea Bahney, PhD

Steadman Philippon Research Institute Bioactive materials to therapeutically modulate endochondral fracture repair



Lisa Blumencranz, PhD

Agendia

From Science Fiction to the Frontline: accelerating the discovery & translation of cancer therapies



Scott Bruder, MD, PhD

Bruder Consulting

Successfully Partnering with your IRB and the FDA to Maintain Compliance



Dustin Anderson, MD

The Steadman Clinic

Chair for Session E: Stem Cell/ Orthobiologics Banking & Clinical Applications



Julie Barone, DO, FACS

Vail Health

The Frontline: Targeted Cancer Therapy and Optimization of Survival



Marko Bodor, MD

Bodor Clinic

Biologics for Spine: Fact or Fiction



Susan Bukata, MD

UC San Diego Health

PTH receptor drugs: new possibilities for an old friend

FEATURED SPEAKERS CONTINUED



Arnold Caplan, PhD

Case Western Reserve University

MSCs and Osteochondral Committed

Progenitors



Sarah de la Motte, PhD

Uniformed Services University Predicting Injury? Time to Start Looking Beyond Biomechanical Risk Factors



Nicole Ehrhart, VMD

Colorado State University

Great Danes and Granddads: How Comparative Research is Moving the Needle in Longevity and Cancer Therapeutics



Tim Ganey, PhD

Vivex Biologics/Miami Tissue Bank
Exosomes and Regenerative Medicine



John Cooke, MD, PhD

Houston Methodist Research Institute mRNA Nanotherapeutics for Regenerative Medicine



George Dodge, PhD

University of Pennsylvania Advances in a Novel Drug Delivery System for Musculoskeletal Applications



Naomasa Fukase, MD, PhD

Steadman Philippon Research Institute Cartilage Healing with Microfracture Augmented with Fisetin & Bone Marrow Aspirate Concentrate



Don Gibbons, MD, PhD

MD Anderson Cancer Center The role of the tumor extracellular matrix in regulating metastasis and immune response



Vaida Glatt, PhD

University of Texas Health, San Antonio

Biomimetic Hematoma: Novel Carrier for the Delivery of Growth Factors to Enhance Bone Healing



Farshid Guilak, PhD

Washington University in St. Louis

Engineering the genome to develop new therapies for obesity, aging, and arthritis



Johnny Huard, PhD

Steadman Philippon Research Institute

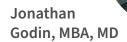
Development of Biological Approaches to Delay Aging Related Disease and Conditions of the Musculoskeletal System



Rick Lieber, PhD

Shirley Ryan AbilityLab

Intraoperative and Laboratory Studies of Human Skeletal Muscle Contractures



The Steadman Clinic

Detectability of senescent cells and biomarkers in synovial fluid and peripheral blood in the setting of acute knee injury



Sealy Hambright, PhD

Potential Clinical Applications

Steadman Philippon Research Institute
Senescence Profiling of Peripheral Blood:



James Kirkland, MD, PhD

Mayo Clinic

Senolytic Agents: The Pathway to

Translation



Aiping Lu, MD

Steadman Philippon Research Institute

Improved histopathology in muscular dystrophy by exposed to healthy peripheral circulation: a parabiotic paring study

FEATURED SPEAKERS CONTINUED



Markel, DVM, PhD University of Wisconsin Chair for Session C: Innovative Technologies for Musculoskeletal Repair



William Murphy, PhD University of Wisconsin

Bioinspired minerals for mRNA stabilization and delivery



Naoki Nakayama, PhD

Steadman Philippon Research Institute

Cellular rejuvenation through the iPS technology for the future cell-based cartilage therapy



Karen Payne, PhD

University of Colorado Anschutz **Medical Campus**

Regenerative Medicine Approaches for the Treatment of Growth Plate Injuries



McGilvray, PhD Colorado State University Development of Translational Ovine

Chronic Rotator Cuff Disease Models



George Muschler, MD

Cleveland Clinic

Measurement, Management, and Automation in MSC fabrication using Performance-Based Selection



Suzanne Page, JD

Steadman Philippon Research Institute

Chair for Working Lunch Session: IRB & FDA compliance for orthobiologics/stem cells therapeutics



Bruno Péault, PhD

University of California, Los Angeles and University of Edinburgh

Mesodermal Stem Cells, Tissue Fibrosis, and Aging



John Peloza, MD

The Steadman Clinic Implants, Metals, and Cells, Oh My



Matthew Provencher, MD

The Steadman Clinic & Steadman Philippon Research Institute

Sports and the Military: My DOD Funding Experience and Lessons Learned *Second talk title listed within program



Bill Rodkey, DVM

Chair for Working Lunch Session: IRB & FDA compliance for orthobiologics/stem cells therapeutics



Linda Sandell, PhD

Washington University School of Medicine Editor in Chief of JOR

Chair for Session F: Biomedical Engineering/ Extracellular Matrix/Musculoskeletal repair and Surgical outcome



The Steadman Clinic &
Steadman Philippon Research Institute

Biologic therapies in the hip: innovation and the promotion of healing



Sudheer Ravuri, PhD

Steadman Philippon Research Institute Chair for Session D: Musculoskeletal repair after injury, disease and aging:

Implication for Therapy



Paul Robbins, PhD

University of Minnesota

Development of novel senotherapeutics for extending healthspan



Kelly Santangelo, DVM, PhD

Colorado State University

Age-related iron accumulation as a potential driver of osteoarthritis

FEATURED SPEAKERS CONTINUED



Katie Sikes, PhD

Colorado State University

Chair for Session F: Biomedical Engineering/Extracellular Matrix/ Musculoskeletal repair and Surgical outcome



Francesca Taraballi, PhD

Houston Methodist

Injectable and Implantable Biomaterials for Musculoskeletal Disorders



Armando Vidal, MD

The Steadman Clinic

Chair for Session A: Sports and Military Performances



Bing Wang, MD, PhD

University of Pittsburgh

Combinatorial Gene Therapy for Duchenne Muscular Dystrophy



Samuel Stupp, PhD

Northwestern University Dynamic Biomaterials for Cell Signaling



Tashman, PhD

Steadman Philippon Research Institute

Advanced imaging to characterize musculoskeletal soft tissue injury and response to treatment



Leslie Vidal, MD

The Steadman Clinic

Chair for Session G: Bone and Articular cartilage regeneration and repair



Lauren Watkins, PhD

Steadman Philippon Research Institute Hybrid [18F]NaF PET/MRI Detects Regions of Elevated Bone Metabolism in Osteoarthritic Knees



Kaitie Whitney

Steadman Philippon Research Institute

Orthobiologics for musculoskeletal regeneration & repair: Reporting Standardization & Therapeutic Improvements



Vonda Wright, MD, MS

Northside Hospital Orthopedic Institute Sports Medicine

Precision Longevity: Re-thinking what it means to Live Long and Prosper



Coen Wijdicks, PhD

Arthrex

Scientific Evidence of Innovative Technologies and Novel Surgical Techniques



Michael Zuscik, PhD

University of Colorado Anschutz Medical Campus

Thinking Outside the Joint: Can Gut Interventions Support Disease Modification in OA?



8/19

4:00 pm

REGISTRATION OPENS

5:30 - 6:30 pm

WELCOME RECEPTION

6:30 -7:30 pm

OPENING REMARKS AND BUFFET DINNER

Evening Sponsored by: Avanos

Opening Remarks: Johnny Huard, PhD, Marc Philippon, MD and Dan Drawbaugh

KEYNOTE SPECIAL SESSION: New Horizon on Healthy Aging "Precision Longevity: Re-thinking what it means to Live Long and Prosper"

Keynote Sponsored by: Linda and Mitch Hart

Johnny Huard, PhD, Steadman Philippon Research Institute

Vonda Wright, MD, MS, Northside Hospital Orthopedic Institute Sports Medicine



8/20

7:00 - 8:00 am	BREAKFAST
8:00 - 9:50 am	SESSION A: SPORTS & MILITARY PERFORMANCES
	Chairs: Matthew Provencher, MD and Armando Vidal, MD Sponsored by: Linda and Mitch Hart
8:00 - 8:35 am	KEYNOTE ADDRESS: Marc Philippon, MD , The Steadman Clinic & Steadman Philippon Research Institute
8:35 - 8:50 am	Matthew Provencher, MD, The Steadman Clinic & Steadman Philippon Research Institute
8:50 - 9:05 am	Sarah de la Motte, PhD, Uniformed Services University
9:05 - 9:20 am	Naomasa Fukase, MD, PhD, Steadman Philippon Research Institute
9:20 - 9:35 am	Coen Wijdicks, PhD, Arthrex (Virtual Speaker)
9:35 - 9:50 am	Q & A
9:50 - 10:05 am	BREAK
10:05 - 11:55 am	SESSION B: INTERVENTIONAL STRATEGIES FOR HEALTHY AGING
	Chairs: Vonda Wright, MD, MS and Marc Philippon, MD Sponsored by: Spruance Foundation
10:05 - 10:40 am	KEYNOTE ADDRESS: James Kirkland, MD, PhD, Mayo Clinic
10:40 - 10:55 am	John Cooke, MD, PhD, Houston Methodist Research Institute (Virtual Speaker)
10:55 - 11:10 am	Johnny Huard, PhD, Steadman Philippon Research Institute
11:10 - 11:25 am	Sealy Hambright, PhD, Steadman Philippon Research Institute
11:25 - 11:40 am	Paul Robbins, PhD, University of Minnesota (Virtual Speaker)
11:40 - 11:55 am	Q & A
11:55 am - 1:00 pm	LUNCH

SCHEDULE CONTINUED

1:00 - 2:50 pm	SESSION C: INNOVATIVE TECHNOLOGIES FOR MUSCULOSKELETAL REPAIR
	Chairs: Mark Markel, DVM, PhD and Chelsea Bahney, PhD Sponsored by: Mary Sue and Mike Shannon
1:00 - 1:35 pm	KEYNOTE ADDRESS: Sam Stupp, PhD, Northwestern University
1:35 - 1:50 pm	Vaida Glatt, PhD, University of Texas Health, San Antonio
1:50 - 2:05 pm	Francesca Taraballi, PhD, Houston Methodist (Virtual Speaker)
2:05 - 2:20 pm	Michael Zuscik, PhD, University of Colorado Anschutz Medical Campus
2:20 - 2:35 pm	Naoki Nakayama, PhD, Steadman Philippon Research Institute
2:35 - 2:50 pm	Q & A
2:50 - 3:05 pm	BREAK
3:05 - 5:10 pm	SESSION D: MUSCULOSKELETAL REPAIR AFTER INJURY, DISEASE AND AGING: IMPLICATION FOR THERAPY
	Chairs: Rick Lieber, PhD and Sudheer Ravuri, PhD Sponsored by: Dierdre and Ronnie Baker
3:05 - 3:40 pm	KEYNOTE ADDRESS: Rick Lieber, PhD, Shirley Ryan AbilityLab
3:40 - 3:55 pm	Aiping Lu, MD, Steadman Philippon Research Institute
3:55 - 4:10 pm	Bing Wang, MD, PhD, University of Pittsburgh
4:10 - 4:25 pm	Kirk McGilvray, PhD, Colorado State University
4:25 - 4:40 pm	Kaitie Whitney, Steadman Philippon Research Institute
4:40 - 4:55 pm	Scott Tashman, PhD, Steadman Philippon Research Institute

8/21

7:00 - 8:00 am	BREAKFAST
8:00 - 9:50 am	SESSION E: STEM CELL/ORTHOBIOLOGICS BANKING & CLINICAL APPLICATIONS
	Chairs: Jonathan Godin, MBA, MD and Dustin Anderson, MD Sponsored by: Donna Giordano
8:00 - 8:35 am	KEYNOTE ADDRESS: Farshid Guilak PhD , Washington University in St. Louis
8:35 - 8:50 am	Arnold Caplan, PhD, Case Western Reserve University
8:50 - 9:05 am	George Muschler, MD, Cleveland Clinic
9:05 - 9:20 am	Bruno Péault, PhD , University of California, Los Angeles and University of Edinburgh
9:20 - 9:35 am	Jonathan Godin, MBA, MD, The Steadman Clinic
9:35 - 9:50 am	A & D
9:50 - 10:00 am	BREAK
10:00 am - 12:05 pm	SESSION F: BIOMEDICAL ENGINEERING/EXTRACELLULAR MATRIX/ MUSCULOSKELETAL REPAIR AND SURGICAL OUTCOME
	Chairs: Linda Sandell, PhD and Katie Sikes, PhD Sponsored by: Mary Sue and Mike Shannon
10:00 - 10:35 am	KEYNOTE ADDRESS: William Murphy, PhD, Washington University
10:35 - 10:50 am	George Dodge, PhD, University of Pennsylvania
10:50 - 11:05 am	Lauren Watkins, PhD, Steadman Philippon Research Institute
11:05 - 11:20 am	John Peloza, MD, The Steadman Clinic
11:20 - 11:35 am	Tim Ganey, PhD, Vivex Biologics / Miami Tissue Bank Sponsored by: Vivex
11:35 - 11:50 am	Marko Bodor, MD, Bodor Clinic
11:50 am - 12:05 pm	Q & A
12:05 - 12:45 pm	WORKING LUNCH: IRB & FDA COMPLIANCE FOR ORTHOBIOLOGICS, STEM CELLS THERAPEUTICS
	Chairs: Suzanne Page, JD and Bill Rodkey, DVM Sponsored by: The Borgen Family
12:05 - 12:20 pm	Matthew Provencher, MD, Steadman Philippon Research Institute
12:20 - 12:35 pm	Scott Bruder, MD, PhD, Bruder Consulting
12:35 - 12:45 pm	Q & A

SCHEDULE CONTINUED

12:45 - 1:00 pm	BREAK
1:00 - 3:05 pm	SESSION G: BONE AND ARTICULAR CARTILAGE REGENERATION AND REPAIR
	Chairs: Leslie Vidal, MD and Scott Tashman, PhD Sponsored by: Mary and Steven Read
1:00 - 1:35 pm	KEYNOTE ADDRESS: Tamara Alliston, PhD, University of California, San Francisco
1:35 - 1:50 pm	Susan Bukata, MD, UC San Diego Health
1:50 - 2:05 pm	Chelsea Bahney, PhD, Steadman Philippon Research Institute
2:05 - 2:20 pm	Karin Payne, PhD, University of Colorado Anschutz Medical Campus
2:20 - 2:35 pm	Kelly Santangelo DVM, PhD, Colorado State University
2:35 - 2:50 pm	A & D
2:50 - 3:00 pm	BREAK
3:00 - 4:15 pm	SESSION H: CANCER THERAPEUTICS
	Chairs: Julie Barone, DO, FACS and Nicole Ehrhart, VMD Sponsored by: Ann Smead and Michael Byram
3:00 - 3:15 pm	Nicole Ehrhart, VMD, Colorado State University
3:15 - 3:30 pm	Don Gibbons, MD, PhD, MD Anderson Cancer Center
3:30 - 3:45 pm	Lisa Blumencranz, PhD, Agendia (Virtual Speaker)
3:45 - 4:00 pm	Julie Barone, DO, FACS, Vail Health
4:00 - 4:15 pm	A & D
4:15 - 4:20 pm	FINAL COMMENTS

ABOUT US

Steadman Philippon Research Institute

Steadman Philippon Research Institute (SPRI) is dedicated to keeping people of all ages physically active through orthopaedic research and education. With an enduring focus on applied clinical translation, SPRI is dedicated to discovering new therapies, treatments and cures that can be brought to patients in a clinical setting. We utilize the latest regenerative medicine techniques—basic science studies at the cellular level—to investigate the causes and effects of degenerative arthritis, techniques of musculoskeletal regeneration and healing processes. SPRI also utilizes state-of-the-art Biomotion and Robotics technologies, magnetic resonance imaging and thirty years of patient outcomes data in its bench-to-bedside approach to research. The 501(c)(3) charitable organization is one of the most published organizations in sports medicine research and education. Learn more at SPRIVail.org.

The Steadman Clinic

The Steadman Clinic is a world-renowned orthopaedic clinic with facilities located in Aspen, Frsico, Edwards and Vail, Colorado. The clinic specializes in sports medicine including knee, hip, shoulder, elbow, hand, spine, foot and ankle injuries and joint replacement. Our experience and research have led to significant advances in the fields of orthopaedics and regenerative sports medicine. The Steadman Clinic treats patients from all walks of life, including recreational and professional athletes from all over the world. Learn more at The Steadman Clinic com.



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University of Colorado Anschutz Medical Campus

University of Minnesota

University of Pennsylvania

University of Pittsburgh

University of Texas Health Science Center at San Antonio

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Washington University School of Medicine

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