



August 20 - 24, 2022

7th Annual Vail Scientific Summit

Advances in
Translational Science

Presented by

Canon

CANON MEDICAL



THE STEADMAN CLINIC

AND

STEADMAN PHILIPPON RESEARCH INSTITUTE

WELCOME

Thank you for joining us for the 7th Annual Vail Scientific Summit presented by Canon Medical and hosted by Steadman Philippon Research Institute (SPRI). 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 regenerative and personalized medicine approaches; novel technologies and therapeutics; surgical and non-surgical interventions; and basic, clinical and translational science applications; we aim to inform our attendees about the state-of-the-art research that can keep people active and healthy. At SPRI, we are committed to making a significant impact on local, national and international scientific and clinical communities, while enhancing patient care and clinical outcomes.

In our 7th Vail Scientific Summit, we've brought together the most distinguished speakers in a variety of fields of research within the scope of regenerative and personalized medicine, military medicine, neuromuscular and cancer therapeutics. The program is designed to facilitate interactions between basic, clinical and translational science researchers and physicians in order to generate new collaborations that will accelerate bench-to-bedside translations, with the ultimate focus of patient care. Throughout this Summit, we aim to build on and inspire novel and cutting-edge research that will set the vision for the future of biologics, diagnostics, therapeutics, technological innovations and translation to keep people active and healthy.

This event would not be possible without the generous support from our presenting sponsor Canon Medical, our generous family donors and corporate 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. Each year, we are amazed at how the Summit has grown and we're looking forward to building upon this great momentum.

Welcome to the 7th Annual Vail Scientific Summit!



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 J. Philippon, MD

The Steadman Clinic
Steadman Philippon Research Institute
Co-Chair - Organizing Committee



Sudheer Ravuri, PhD

Steadman Philippon Research Institute
Co-Chair - Organizing Committee



FAMILY SPONSORS

Dierdre and Ronnie Baker

Session 4: Biomedical Engineering/Extracellular Matrix/Musculoskeletal Repair and Surgical Outcomes | Sunday, August 21



After selling both of their companies in the Kansas City area and retiring to ski and play in the mountains, Dierdre 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.



The Borgen Family

*Session 9: Stem Cells, Biomaterials, Exosomes and Orthobiologics |
Tuesday, August 23*



Bjorn Erik and Kathy Borgen have 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 MBA from Harvard Business School and had a very successful career.



FAMILY SPONSORS CONTINUED

Donna Giordano

Session 5: Orthopaedic Surgery and Military Performance | Monday, August 22



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.



Linda and Mitch Hart

Session 3: Interventional Strategies for Healthy Aging | Sunday, August 21
Welcome Dinner | Sunday, August 21



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 a 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.

MILLEDDGE 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.

FAMILY SPONSORS CONTINUED

Mary Sue & Mike Shannon

Session 2: Innovative Technologies for Musculoskeletal Repair | Sunday, August 21
Samuel Stupp, PhD Keynote Address | Sunday, 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 11: Cancer Therapeutics | Tuesday, August 23



Ann and Michael are longtime supporters of many nonprofits in the Vail Valley, including 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 real 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 The Steadman Clinic doctors help him continue to lead a productive life.

Spruance Foundation II

Session 12: Spine/Neurodegeneration and Conclusion | Tuesday, August 23



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 J. Philippon, MD

The Steadman Clinic
Steadman Philippon Research Institute



Dan Drawbaugh

The Steadman Clinic
Steadman Philippon Research Institute

KEYNOTE SPECIAL SESSION



Samuel Stupp, PhD

Northwestern University
New Supra-Therapies for Healthier and Longer Lives

FEATURED SPEAKERS



**Julie
Allickson, PhD**

Mayo Clinic

*Building a National Ecosystem for
Regenerative Biotherapeutics across
Mayo Clinic Enterprise*



**Hani
Awad, PhD**

University of Rochester

*Microphysiological Systems to Model
Human Musculoskeletal Pathologies*



**Julie
Barone, DO, FACS**

Vail Health

*Personalized Cancer Care: Are We
There Yet?*



**Scott
Bruder, MD, PhD**

Bruder Consulting

*What is the Situation with Orthobiologics
in 2022? - FDA / FTC / CMS Update and
Lay of the Land*



**Dustin
Anderson, MD**

The Steadman Clinic

*Regulatory Updates in
Regenerative Medicine*



**Chelsea
Bahney, PhD**

Steadman Philippon Research Institute

*From bench to bedside: understanding
age-related delay in fracture healing*



**Thomas
Best, MD, PhD**

University of Miami

*The role of synovitis in the pathophysiology
and symptoms of osteoarthritis – potential
new targets for treatment*



**Susan
Bukata, MD**

UC San Diego Health

*Bone and cartilage regeneration: shaping
the future on the lessons of the past*

FEATURED SPEAKERS CONTINUED



**Jason
Burdick, PhD**

University of Colorado Boulder

Leveraging Biomaterials Design to Improve Engineered Cartilage Properties



**Constance
Chu, MD**

Stanford University

What I Say to Patients About Reducing Osteoarthritis Risk After ACL Reconstruction



**Rony-Orjit
Dey Hazra, MD**

DIAKOVERE Friederikenstift

Safety and Efficacy of Fisetin for improving Rotator Cuff Repair: Initial Outcomes in a Sheep Model



**Grant
Dornan, MS**

Steadman Philippon Research Institute

Centering on the Patient: Outcomes Research at The Steadman Clinic and Steadman Philippon Research Institute



**Jeff
Christiansen, PhD**

ProofPoint Biologics

Outlook on application of bone marrow concentrates for treatment of musculoskeletal disorders



**Micky
Collins, PhD**

University of Pittsburgh Medical Center

Clinical Approaches to Concussion Management: Case Review



**George
Dodge, PhD**

University of Pennsylvania

Microcapsule drug delivery platform designed to innovate multiple therapeutic outcomes



**Jeremiah
Easley, DVM**

Colorado State University

Translational Large Animal Orthopaedic Models: The Foundation for Therapeutic Development and Assessment



Nicole Ehrhart, DVM

Colorado State University

Longitudinal Surveillance and Biobanking: Tools for Aging Outcomes and Biomarker Discovery



Thos Evans, MD

The Steadman Clinic & Steadman Philippon Research Institute

Safety, efficacy, and results with intra-articular Bone Marrow Concentrate injections for knee osteoarthritis



Michael Gallizzi, MD, MS

The Steadman Clinic & Steadman Philippon Research Institute

Clinical Application of Advanced Spinal Surgery Technology: Robotics to Endoscopes



Don Gibbons, MD

MD Anderson Cancer Center

LAIR-1 and the ECM regulate cancer immune surveillance and immunotherapy response



Jennifer Elliott, PhD

Pharmacy, Duquesne University

Integrative Health at Duquesne University



Adam Faurot, CCO

SPEAR Human Performance

Intelligent Human Performance



Xueqin Gao, MD, PhD

Steadman Philippon Research Institute

The Use of Heparin/Polycation Coacervate Sustain Release System to Identify Most Potent BMPs for Promoting Bone Regeneration in a Critical-Sized Calvarial Bone Defect



Rear Admiral Bruce L. Gillingham, MD

Bureau of Medicine and Surgery

Mil-Civ Research Opportunities

MSK-NEST: A Tool for Warfighter Musculoskeletal Readiness

FEATURED SPEAKERS CONTINUED



**Vaida
Glatt, PhD**

University of Texas Health Science
Center

*Targeting Senescent Cells to Prevent
or Revert Chemotherapy Induced Bone
Loss in Aged Mice*



**Vijay
Gorantla, MD, PhD**

Wake Forest University

*Regenerative Surgery - Emerging
Innovation and Translational
Opportunities*



**Lee
Grossman, MBA**

OREF

*Imagine the possibilities-the need for
increased MSK funding*



**Edward
Guo, PhD**

Columbia University

*Bone Microstructure Shaped by
Mechanical Loading*



**Jonathan
Godin, MD**

The Steadman Clinic &
Steadman Philippon Research Institute

*Synovial fluid, peripheral blood, senescent
cells and biomarkers in acute knee injuries*



**Anthony
Griswold, PhD**

University of Miami

*The study of osteoarthritis through the
lens of genomics applications*



**Farshid
Guilak, PhD**

Washington University in St. Louis

*Engineering cells for
musculoskeletal therapies*



**Ping
Guo, PhD**

Steadman Philippon Research
Institute

*Utilizing of genome-engineered MDSCs
for anti-inflammation and antifibrosis
therapy*



**Sealy
Hambright, PhD**

Steadman Philippon Research Institute

*Clinical utility of senescence detection
using C12FDG staining*



**Francis
Hornicek, MD, PhD**

University of Miami

*Multidrug Resistance in
Sarcoma-Stem Cells*



**Jelena
Janjic, PhD**

Pharmacy, Duquesne University

*Theranostic Pain Nanomedicine – Lived
Experience Inspired Innovation*



**Herb
Kasler, PhD**

Buck Institute

*Deep Immunophenotyping of Mouse
and Human Specimens by Spectral Flow
Cytometry in Aging and Fracture Healing*



**Patricia
Hardenbergh, MD**

Shaw Cancer Center, Vail Health

*What do oncology and orthopaedics
have in common?*



**Johnny
Huard, PhD**

Steadman Philippon Research Institute

*Senolytic and Anti-Fibrotic Agents as an
Adjunct to Surgical Treatment*



**Lee
Kaplan, MD**

University of Miami Orthopaedics

*The Miami Approach to Understanding
Genetic Markers and Injury*



**John
Kauffman, Jr, DO, FACOI, FACP**

Dean, Duquesne University

*Lessons Learned, Starting a New Medical
School: During a Pandemic*

FEATURED SPEAKERS CONTINUED



**James
Kirkland, MD, PhD**

Mayo Clinic

Cellular Senescence and Senolytics: The Path to Translation



**Dimitri
Kouroupis, PhD**

University of Miami

Mesenchymal stromal cells for Musculoskeletal Regeneration: Current Status and Perspectives



**Mark
Markel, DVM, PhD**

University of Wisconsin

Chair and Moderator for Session 2



**LT Garrett
Morgan, PhD**

US Navy

Office of Naval Research funded research efforts targeting musculoskeletal injury rates among active duty service members



**Feliks
Kogan, PhD**

Stanford University

Emerging PET and MRI Methods to Add Clinical Value in Musculoskeletal Disorders



**Aiping
Lu, MD**

Steadman Philippon Research Institute

The Role of PDGFR β Lineage Cells in Skeletal Muscle During Aging



**Peter
Millett, MD, MSc**

The Steadman Clinic &
Steadman Philippon Research Institute

Evolution of RC Repair - from Bedside to Bench and Back Again



**William
Murphy, PhD**

University of Wisconsin

Mimicking nature to enhance and prolong the effects of therapeutic mRNA



Naoki Nakayama, PhD

Steadman Philippon Research Institute
Embryonic chondroprogenitor cells fated to form permanent cartilage for the future cartilage regenerative therapy



Haruki Nishimura, MD, PhD

University of Occupational and Environmental Health, Japan
Can Fisetin & Bone Marrow Aspirate Concentrate enhance the treatment for cartilage damage?



Marc J. Philippon, MD

The Steadman Clinic & Steadman Philippon Research Institute
Hip Chondral Labral Dysfunction: The Road from Excision to Repair, Replacement and Regeneration



Matthew Provencher, MD, MBA

The Steadman Clinic & Steadman Philippon Research Institute
Chair and Moderator for Session 5



Corey Neu, PhD

University of Colorado Boulder
Mechanical memory and nuclear priming for cartilage repair



Suzanne Page, JD

Steadman Philippon Research Institute
Moderator for Working Lunch



Gill Price, MD

ProPharma Group
Key elements to consider before starting your clinical trial



Chad Prusmack, MD

Resilience Code
The role of Environmental Subconcussion in Neurodegenerative Disease

FEATURED SPEAKERS CONTINUED



**Charles
Raison, MD**

University of Wisconsin-Madison
*Adaptive Stress and the Future
of Depression*



**Kavi
Sachar, MD**

The Steadman Clinic &
Steadman Philippon Research Institute
*The role of bone graft in scaphoid non-
unions and hand surgery*



**Rich
Santore, MD**

University of California San Diego
Hypermobility: Blessing or Curse, or Both



**Katie
Sikes, PhD**

Colorado State University
*The role of energy metabolism in tendon
structure, function, and healing*



**Joe
Ruzbarsky, MD**

The Steadman Clinic &
Steadman Philippon Research Institute
Biologic solutions for fracture nonunion



**Linda
Sandell, PhD**

Washington University School of Medicine
Editor-in-Chief of *Journal of
Orthopaedic Research*



**Ashok
Shetty, PhD**

Texas A&M University
*Treating Traumatic Brain Injury through
intranasal administration of MSC-derived
Extracellular Vesicles*



**Samuel
Stupp, PhD**

Northwestern University
*New Supra-Therapies for Healthier and
Longer Lives*



**Francesca
Taraballi, PhD**

Houston Methodist

Immune-engineering biomaterials for musculoskeletal disorders



**CDR Robert
Waltz, MD**

Naval Health Clinic Annapolis

Senescent Cells in Synovial Fluid



**Lauren
Watkins, PhD**

Steadman Philippon Research Institute

Advanced ultrasound techniques for the evaluation of rotator cuff tears and repairs



**Michael
Zuscik, PhD**

University of Colorado Anschutz Medical Campus

PTH1R Agonists: From the Chondrocyte, to Cartilage, to Potential Disease Modification in OA (and pre-OA?)



**Scott
Tashman, PhD**

Steadman Philippon Research Institute

Relationships between cellular senescence, cartilage structure and movement function for individuals with osteoarthritis



**Yadong
Wang, PhD**

Cornell University

Extend the half-lives of growth factors by spontaneous condensation



**Coen
Wijdicks, PhD**

Arthrex

The Evidence-Based Medicine Pyramid for ACL Reconstruction with the Internal Brace Technique; A 5-year Review

SCHEDULE

8/20

4:00 pm **REGISTRATION OPENS**

5:30 - 6:30 pm **WELCOME RECEPTION: INFORMAL COCKTAIL GATHERING**



8/21

7:00 - 8:00 am	BREAKFAST
8:00 - 9:45 am	SESSION 1: MUSCULOSKELETAL REPAIR AFTER INJURY & DISEASE: IMPLICATION FOR THERAPY <i>Chairs: Marc J. Philippon, MD and Jonathan Godin, MD</i>
8:00 - 8:35 am	KEYNOTE ADDRESS: Marc J. Philippon, MD , The Steadman Clinic & Steadman Philippon Research Institute
8:35 - 8:50 am	Lee Kaplan, MD , University of Miami Orthopaedics (<i>Virtual Speaker</i>)
8:50 - 9:05 am	Jonathan Godin, MD , The Steadman Clinic & Steadman Philippon Research Institute
9:05 - 9:20 am	Jeremiah Easley, DVM , Colorado State University
9:20 - 9:35 am	Lauren Watkins, PhD , Steadman Philippon Research Institute
9:35 - 9:45 am	Q & A
9:45 - 10:00 am	BREAK
10:00 am - 12:00 pm	SESSION 2: INNOVATIVE TECHNOLOGIES FOR MUSCULOSKELETAL REPAIR <i>Chairs: Mark Markel, DVM, PhD and Naoki Nakayama, PhD</i> <i>Sponsored by: Mary Sue and Mike Shannon</i>
10:00 - 10:35 am	KEYNOTE ADDRESS: William Murphy, PhD , University of Wisconsin
10:35 - 10:50 am	Francesca Taraballi, PhD , Houston Methodist Research Institute
10:50 - 11:05 am	Jalena Janjic, PhD , Pharmacy, Duquesne University
11:05 - 11:20 am	Thomas Best, MD , University of Miami
11:20 - 11:35 am	Naoki Nakayama, PhD , Steadman Philippon Research Institute
11:35 - 11:50 am	Anthony Griswold, PhD , University of Miami
11:50 am - 12:00 pm	Q & A
12:00 - 1:00 pm	LUNCH

SCHEDULE CONTINUED

1:00 - 2:45 pm	SESSION 3: INTERVENTIONAL STRATEGIES FOR HEALTHY AGING <i>Chairs: Johnny Huard, PhD and James Kirkland, MD, PhD</i> <i>Sponsored by: Linda and Mitch Hart</i>
1:00 - 1:35 pm	KEYNOTE ADDRESS: James Kirkland, MD, PhD , Mayo Clinic
1:35 - 1:50 pm	Johnny Huard, PhD , Steadman Philippon Research Institute
1:50 - 2:05 pm	Sealy Hambright, PhD , Steadman Philippon Research Institute
2:05 - 2:20 pm	Robert Waltz, MD , Naval Health Clinic Annapolis, Orthopaedic Surgery
2:20 - 2:35 pm	Herb Kasler, PhD , Buck Institute
2:35 - 2:45 pm	Q & A
2:45 - 2:55 pm	BREAK
2:55 - 4:40 pm	SESSION 4: BIOMEDICAL ENGINEERING/EXTRACELLULAR MATRIX/ MUSCULOSKELETAL REPAIR AND SURGICAL OUTCOMES <i>Chairs: George Dodge, PhD and Scott Tashman, PhD</i> <i>Sponsored by: Dierdre and Ronnie Baker</i>
2:55 - 3:30 pm	KEYNOTE ADDRESS: Constance Chu, MD , Stanford University
3:30 - 3:45 pm	George Dodge, PhD , University of Pennsylvania
3:45 - 4:00 pm	Katie Sikes, PhD , Colorado State University
4:00 - 4:15 pm	Scott Tashman, PhD , Steadman Philippon Research Institute
4:15 - 4:30 pm	Coen Wijdicks, PhD , Arthrex (<i>Virtual Speaker</i>)
4:30 - 4:40 pm	Q & A
4:40 - 4:50 pm	BREAK
4:50 - 5:15 pm	SPRI NEW INITIATIVES <i>Introduction by: Johnny Huard, PhD</i>
4:55 - 5:05 pm	Lee Grossman, MBA , CEO, OREF
5:05 - 5:15 pm	John Kauffman Jr, DO, FACOI, FACP , Dean, Duquesne University
5:15 - 5:45 pm	BREAK

5:45 - 8:45 pm

**7TH ANNUAL VAIL SCIENTIFIC SUMMIT PRESENTED BY
CANON MEDICAL WELCOME DINNER**

Sponsored by: Linda and Mitch Hart

5:45 - 6:30 pm

Cocktail Gathering

6:30 - 7:30 pm

Dinner and Opening Remarks, Dan Drawbaugh, Marc J. Philippon, MD and Johnny Huard, PhD

7:30 - 7:50 pm

SPRI: Where We Have Been and Where We Are Going,
Marc J. Philippon, MD and Johnny Huard, PhD

7:50 - 8:05 pm

US Military Collaboration, Rear Admiral Bruce L. Gillingham,
MD, CPE,FAAOS, FAOA, RADM, MC, USN, Surgeon General and
Chief, Bureau of Medicine and Surgery

8:05 - 8:35 pm

KEYNOTE ADDRESS: Samuel Stupp, PhD, Northwestern
University *Sponsored by: Mary Sue and Mike Shannon*

8:35 - 8:45 pm

Q & A



SCHEDULE CONTINUED

8/22

7:00 - 8:00 am	BREAKFAST
8:00 - 9:55 am	SESSION 5: ORTHOPAEDIC SURGERY AND MILITARY PERFORMANCE <i>Chairs: Peter Millett, MD, MSc, Rear Admiral Bruce L. Gillingham, MD, and Matthew Provencher, MD, MBA</i> <i>Sponsored by: Donna Giordano</i>
8:00 - 8:35 am	KEYNOTE ADDRESS #1: Admiral Bruce L. Gillingham, MD, United States Navy Rear Admiral and Orthopaedic Surgeon General and Chief, Bureau of Medicine and Surgery
8:35 - 8:50 am	Adam Faurot, CCO, SPEAR Human Performance
8:50 - 9:05 am	LT Garrett Morgan, PhD, US Navy Program Officer (<i>Virtual Speaker</i>)
9:05 - 9:40 am	KEYNOTE ADDRESS #2: Peter Millett, MD, MSc, The Steadman Clinic & Steadman Philippon Research Institute
9:40 - 9:55 am	Q & A, <i>Moderated by: Matthew Provencher, MD, MBA</i>
9:55 - 10:05 am	BREAK
10:05 - 11:50 am	SESSION 6: ORTHOPAEDIC SURGERY, BIOLOGICS AND SPORTS MEDICINE <i>Chairs: Julie Allickson, PhD and Thos Evans, MD</i> <i>Sponsored by: Anonymous</i>
10:05 - 10:40 am	KEYNOTE ADDRESS: Julie Allickson, PhD, Mayo Clinic
10:40 - 10:55 am	Thos Evans, MD, The Steadman Clinic & Steadman Philippon Research Institute
10:55 - 11:10 am	Vijay Gorantla, MD, PhD, Wake Forest University
11:10 - 11:25 am	Grant Dornan, MS, Steadman Philippon Research Institute
11:25 - 11:40 am	Aiping Lu, MD, Steadman Philippon Research Institute
11:40 - 11:50 am	Q & A
11:50 am - 12:05 pm	GROUP PHOTO - 7TH VAIL SCIENTIFIC SUMMIT 2022
12:05 - 1:00 pm	LUNCH

1:00 - 3:00 pm

SESSION 7: NOVEL THERAPEUTICS AND MUSCULOSKELETAL TISSUE REPAIR: CLINICAL IMPLICATIONS

Chairs: Kavi Sachar, MD and Dustin Anderson, MD

1:00 - 1:35 pm

KEYNOTE ADDRESS: Farshid Guilak PhD, Washington University in St. Louis

1:35 - 1:50 pm

Kavi Sachar, MD, The Steadman Clinic & Steadman Philippon Research Institute

1:50 - 2:05 pm

Joe Ruzbarsky, MD, The Steadman Clinic & Steadman Philippon Research Institute (*Virtual Speaker*)

2:05 - 2:20 pm

Hani Awad, PhD, University of Rochester

2:20 - 2:35 pm

Dustin Anderson, MD, The Steadman Clinic & Steadman Philippon Research Institute

2:35 - 2:50 pm

Rony-Orjit Dey Hazra, MD, DIAKOVERE Friederikenstift: Hannover, Germany

2:50 - 3:00 pm

Q & A

3:00 - 3:10 pm

BREAK

3:10 - 5:10 pm

SESSION 8: NOVEL TECHNOLOGIES AND REGENERATIVE MEDICINE

Chairs: Yadong Wang, PhD and Feliks Kogan, PhD

3:10 - 3:45 pm

KEYNOTE ADDRESS: Yadong Wang, PhD, Cornell University

3:45 - 4:00 pm

Corey Neu, PhD, University of Colorado Boulder

4:00 - 4:15 pm

Jason A. Burdick, PhD, University of Colorado Boulder

4:15 - 4:30 pm

Feliks Kogan, PhD, Stanford University

4:30 - 4:45 pm

Jennifer Elliott, PhD, Pharmacy, Duquesne University

4:45 - 5:00 pm

Jeff Christiansen, PhD, The Steadman Clinic (ProofPoint Biologics)

5:00 - 5:10 pm

Q & A

5:10 - 5:20 pm

BREAK

5:20 - 7:15 pm

POSTER SESSION WITH REFRESHMENTS

Please enjoy dinner on your own at one of the many great restaurants Vail has to offer.

SCHEDULE CONTINUED

8/23

7:00 - 8:00 am	BREAKFAST
8:00 - 9:45 am	SESSION 9: STEM CELLS, BIOMATERIALS, EXOSOMES AND ORTHOBIOLOGICS <i>Chairs: Mike Zuscik, PhD and Edward Guo, PhD</i> <i>Sponsored by: The Borgen Family</i>
8:00 - 8:35 am	KEYNOTE ADDRESS: Edward Guo, PhD , Columbia University
8:35 - 8:50 am	Ping Guo, PhD , Steadman Philippon Research Institute
8:50 - 9:05 am	Mike Zuscik, PhD , University of Colorado Denver
9:05 - 9:20 am	Dimitri Kouroupis, PhD , University of Miami
9:20 - 9:35 am	Haruki Nishimura, MD, PhD , University of Occupational and Environmental Health, Fukuoka, Japan
9:35 - 9:45 am	Q & A
9:45 - 9:55 am	BREAK
9:55 - 11:40 am	SESSION 10: BONE, TENDON AND ARTICULAR CARTILAGE REGENERATION AND REPAIR <i>Chairs: Susan Bukata, MD and Rich Santore, MD</i>
9:55 - 10:30 am	KEYNOTE ADDRESS: Susan Bukata, MD , University of California San Diego
10:30 - 10:45 am	Rich Santore, MD , University of California San Diego
10:45 - 11:00 am	Chelsea Bahney, PhD , Steadman Philippon Research Institute
11:00 - 11:15 am	Vaida Glatt, PhD , University of Texas Health Science Center
11:15 - 11:30 am	Xueqin Gao, MD, PhD , Steadman Philippon Research Institute
11:30 - 11:40 am	Q & A
11:40 am - 12:25 pm	WORKING LUNCH: REGULATORY-IRB, IDE/IND, FDA, FTC AND CMS <i>Presenters: Cil Price, MD and Scott Bruder, MD, PhD</i>
11:40 - 11:45 am	Suzanne Page, JD , Introduction of the Session and Speakers
11:45 am - 12:00 pm	Gil Price, MD , Chief Medical Consultant, ProPharma Group
12:00 - 12:15 pm	Scott Bruder, MD, PhD , Founder and CEO, Bruder Consulting & Venture Group
12:15 - 12:25 pm	Q & A , <i>Moderated by: Suzanne Page, JD</i>
12:25 - 12:30 pm	BREAK

12:30 - 2:15 pm

SESSION 11: CANCER THERAPEUTICS

*Chairs: Patricia Hardenbergh, MD and Julie Barone, DO, FACS
Sponsored by: Ann Smead and Michael Byram*

12:30 - 1:05 pm

KEYNOTE ADDRESS: Francis Hornicek, University of Miami

1:05 - 1:20 pm

Patricia Hardenbergh, MD, Shaw Cancer Center, Vail Health

1:20 - 1:35 pm

Julie Barone, DO, FACS, Shaw Cancer Center, Vail Health

1:35 - 1:50 pm

Nicole Ehrhart, DVM, Colorado State University

1:50 - 2:05 pm

Don Gibbons, MD, MD Anderson Cancer Center

2:05 - 2:15 pm

Q & A

2:15 - 2:25 pm

BREAK

2:25 - 4:10 pm

SESSION 12 : SPINE/NEURODEGENERATION AND CONCUSSION

*Chairs: Ashok Shetty, PhD and Micky Collins, PhD
Sponsored by: Spruance Foundation II*

2:25 - 3:00 pm

KEYNOTE ADDRESS: Micky Collins, PhD, University of Pittsburgh Medical Center

3:00 - 3:15 pm

Michael Gallizzi, MD, MS, The Steadman Clinic & Steadman Philippon Research Institute

3:15 - 3:30 pm

Charles Raison, MD, University of Wisconsin-Madison

3:30 - 3:45 pm

Chad Prusmack, MD, Founder, Resilience Code, Denver

3:45 - 4:00 pm

Ashok Shetty, PhD, Texas A&M University

4:00 - 4:10 pm

Q & A

4:10 - 4:20 pm

CLOSING REMARKS

Marc J. Philippon, MD, Dan Drawbaugh, Johnny Huard, PhD

Announcement of 8th Annual VSS in 2023

Best Poster Award Ceremony (1st and 2nd positions)

4:30 - 6:00 pm

CLOSING RECEPTION AT THE HYTHE RESORT

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 over 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, Basalt, Frisco, 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 TheSteadmanClinic.com.



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