PROGRAM

Podium Sessions

Time	Topics	Speakers
7:30	**Registration and Light Breakfast**	
8:00	**Welcome**	**Zong-Ming Li, Ph.D.** **David Corr, Ph.D.**
8:15	***Clinical Lecture: Innovation in Hip Arthroscopy Over the Past 10 Years***	**Marc Philippon, M.D.**
	Podium Session I: Biomechanics I: Healing Ligament and Tendon / In Vivo Assessment	**Moderators:** **Louis Soslowsky, Ph.D.** **Chunfeng Zhao, M.D.**
8:30	***Keynote Lecture:*** *Timing Of Post-Operative Mechanical Loading Effects Healing Following Anterior Cruciate Ligament Reconstruction*	**Christopher L. Camp, M.D.**
8:40	*Discussion*	
8:45	Detection of Osteoclastic Activity in a Murine Model of Anterior Cruciate Ligament Reconstruction using Optical Near-Infrared Imaging and Cathepsin K Probe	Amir Lebaschi, M.D.
8:50	Contrasting Effects of Re-injury on the Structural and Material Properties of the Rabbit Medial Collateral Ligament	Johnathan L Sevick, M.Sc.
8:55	The LG/J Murine Strain Exhibits Near-Normal Tendon Biomechanical Properties Following A Full-Length Central PT Defect	Jason T. Shearn, Ph.D.
9:00	Impact of Incremental Flexor Retinaculum Release on Carpal Tunnel Compliance	Rubina Ratnaparkhi, B.S.
9:05	*Discussion*	
9:20	Kinematics of ACL-Deficient and Healthy Knees During Stair Descent: An Application of a Clinician-Friendly Motion Capture System	Kam-Ming Mok, M.Phil.
9:25	Transverse Carpal Ligament and Tendon Interaction in the Carpal Tunnel	Tamara L. Marquardt, MBA
9:30	Orientation and Size Changes in the Porcine Anterior Cruciate Ligament Throughout Skeletal Growth	Stephanie Cone, B.S.
9:35	*Discussion*	
9:50	**Coffee Break/ Poster Session I (even numbers)**	

	Podium Session II: Tendon Mechanobiology & Stem Cell	**Moderators:** **Alice Huang, Ph.D.** **Lisa Larkin, Ph.D.**
10:20	***Savio L-Y. Woo Young Biomechanical Research Award*** *Cyclic Mechanical Loading Improves Tensile and Failure Properties of Scaffold-Free Engineered Tendon Fibers*	**Kuwabo Mubyana, Ph.D.**
10:30	*Discussion*	
10:35	The Role of SPARC in Mechannosensing Function of Tendon	Tao Wang, Ph.D.
10:40	Origin of Cells that Contribute to Murine Rotator Cuff Tendon Healing	Ryu Yoshida, M.D.
10:45	*Discussion*	
10:55	Stem/Progenitor Cell Recruitment to Deteriorating Tendons in Mice with Conditional Deletion of TGF-Beta Type II Receptor	Guak-Kim Tan, Ph.D.
11:00	A Comparison of Adipose- and Bone Marrow- Derived Mesenchymal Stem Cell Behavior on Micro-Photopatterned Surfaces	Sean Meehan, M.S.
11:05	Tendon Tissue Derived Extracellular Matrix Enhances Tenogenic Response to TGF-Beta of Mesenchymal Stem Cells via Smad Complex Signaling	Guang Yang, Ph.D.
11:10	*Discussion*	
	Podium Session III: Tissue Engineering in ACL Repair	**Moderators:** **Christos Papageorgiou, M.D., Ph.D.** **Jason Shearn, Ph.D.**
11:25	***Keynote Lecture:*** *Fresh and Frozen Tissue Engineered 3D Bone-Ligament-Bone Constructs for Sheep ACL Repair Following Two-Year Implantation*	**Vasu Mahalingam, M.S.**
11:35	*Discussion*	
11:40	***Savio L-Y. Woo Young Translational Research Award*** *Augmentation of Tendon Graft Anterior Cruciate Ligament Reconstruction Outcome Using a Silk Based Osteoconductive Sheath*	**Thomas K.H. Teh, Ph.D.**
11:50	*Discussion*	
11:55	Effect Of Tripeptide Copper Complex GHK-Cu On Cultured Healing Cells Derived From Tendon Graft In Anterior Cruciate Ligament Reconstruction	Yau-Chuk Cheuk, M.Phil.

12:00	A Novel Magnesium Ring Device Combined with ECM Bioscaffolds Improves ACL Healing Compared to ECM Treatment Alone	Kathryn Farraro, Ph.D.
12:05	*Discussion*	
12:15	**Flash Presentation by Poster Presenters**	**Moderators:** **Connie Chamberlain, Ph.D.** **Michael Lavagnino, Ph.D.** **Johnna Temenoff, Ph.D.**
12:30	**Lunch (Group Photo and Poster Viewing)** **Podium Session IV: Inflammation and Tendon Healing**	 **Moderators:** **Paul Ackermann, M.D., Ph.D.** **Stavros Thomopoulos, Ph.D.**
13:30	***Keynote Lecture:*** *The Immunomodulation of Ligament Healing*	**Connie S. Chamberlain, Ph.D.**
13:40	*Discussion*	
13:45	Curcumin: Does it Decrease Inflammation in Tendon Healing?	Diana Zhu, B.S.
13:50	The Differential Effects of Protease-Activated Receptors 1 and 4 in Human Platelet Activation and Inflammation	Jianying Zhang, Ph.D.
13:55	The Role of Interleukin-13 in Tendinopathy	Moeed Akbar, Ph.D.
14:00	*Discussion*	
	Special Session in Honor of Professor Kai-Ming Chan	**Moderator:** **Bruma Sai-Chuen Fu, PhD**
14:15	Research in Orthopaedics-What Have I Learned in 40 Years	Kai-Ming Chan, M.D., Ph.D.
14:35	What Do Orthopaedic Surgeons Need For Research?	Mahmut Doral, M.D.
14:40	Cell Therapies for Tendon Surgery	Minghao Zheng, M.D., Ph.D.
14:45	Learn from Tendon Stem Cells-Potential Clinical Use	Hongwei Ouyang, M.D.
14:50	*Discussion*	
15:05	Out of Academics: Product Development from Concept, Patent Process, R&D, Prototyping, Testing, to the Market	Albert Banes, Ph.D.
15:10	PRP Myths	Ramon Cugat, M.D.
15:15	Is There Any Substance in the PRP Treatment of Tendinopathy?	James Wang, Ph.D.

15:20	*Discussion*	
15:35	Healing and Regeneration After Anterior Cruciate Ligament Injury	Chih-Hwa Chen, M.D., MBA
15:40	Biomechanics and Kinematic Studies of the ACL	Guoan Li, Ph.D.
15:45	*Discussion*	
15:55	**Coffee Break/Poster Session II (odd numbers)**	
	Podium Session V: Biomechanics II: Theoretical and Computational Modeling	**Moderators:** **Ray Vanderby, Jr., Ph.D.** **Guoan Li, Ph.D.**
16:25	Predicting Tendon ECM Composition from Tenocyte Strain and Fiber Damage	Arash Mehdizadeh, Ph.D.
16:30	Development and Validation of a Computational Foot and Ankle Model to Investigate Lateral Ligamentous Strain	Sophia Chui-Wai Ha, M.A.
16:35	Adaptive Remodeling of Achilles Tendon: A Multi-scale Computational Model	Stuart Young, B.E.
16:40	Histology-Inspired Mechanical Analysis of Anterior Cruciate Ligament Injury	Callan Luetkemeyer, B.S.
16:45	*Discussion*	
	Podium Session VI: Rotator Cuff Injury and Repair	**Moderators:** **Dianne Little, DVM, Ph.D.** **Roger Smith, Ph.D.**
17:00	***Savio L-Y. Woo Young Biological Research Award*** *Reduced Muscle Degeneration and Decreased Fatty Infiltration After Rotator Cuff Tear in a Parp-1 Knock-Out Mouse Model*	**Michael Kuenzler, M.D.**
17:10	*Discussion*	
17:15	Pre-Operative Intramuscular Fat Fractions are Significantly Higher in Patients with Eventual Failed Rotator Cuff Repair	Drew Lansdown, M.D.
17:20	Micro-CT Evaluation of Cartilage Degeneration on Two Rat Models of Shoulder Injury	Jennifer McFaline-Figueroa, B.S.
17:25	Effect of Hypercholesterolemia on Fatty Infiltration and Rotator Cuff Healing in a Chronic Rotator Cuff Tear Model of Rabbit	Seok Won Chung, Ph.D.
17:30	Tissue Engineered Tendon Constructs for Rotator Cuff Repair in a Sheep Model	Stoyna S. Novakova, B.S.
17:35	*Discussion*	

17:50	**Closing Remarks for ISL&T - XV**	**Patrick Yung, M.D.** **Savio L-Y. Woo, Ph.D., D.Sc., D.Eng.**
18:00	*Proceed to Banquet Venue (Transportation Provided)*	
18:30	**Banquet and Award Ceremony** **Ming Court Restaurant** **9188 International Drive**	

Poster Presentations

Moderators: Connie Chamberlain, Ph.D., Michael Lavagnino, Ph.D., and Johnna Temenoff, Ph.D.

Poster Number	Title	Presenter
1	Hypoxia Inhibits Primary Cilia Formation and Reduces Cell-Mediated Contraction in Stress-Deprived Rat Tail Tendon Fascicles	Anna Oslapas
2	Hyperelastic and Viscoelastic Characterization of Anterior Cruciate Ligament Biomechanics	Kaitlyn Mallett, B.S.
3	Inhibition of Retinoic Acid Signaling and Stimulation of Wnt Signaling Allows Efficient Paraxial Mesoderm Formation from Human Embryonic Stem Cells	Ryan P. Russell, M.A.
4	High throughput, multi-image cryohistology of joint tissues	Nathaniel Dyment, Ph.D.
5	Dysfunction of CFTR Impairs Tendon Differentiation through Activation of pERK1/2 in Mice	Gang Li, Ph.D.
6	Procollagen Biomarkers of Healing in Microdialysate Predict Patient-reported Outcome after Achilles Tendon Rupture	Simon Svedman
7	Recovery of Viscoelastic Properties of Achilles Tendon Following Rupture	Jennifer Zellers, DPT
8	Comparison of the Cellular Composition and Cytokine-Release Kinetics of Various Platelet-rich Plasma (PRP) Preparations	Young Hak Roh, M.D., Ph.D.
9	Heat shock induces the expression of pro-inflammatory cytokines in human tenocytes	Alessio D'Addona M.D.
10	Adverse Effects Of Synovial Fluid On Internal Tendon Cells –Implications For Intrasynovial Tendon Repair	Roger Smith, Ph.D.