Preliminary PROGRAM

7:00 am  Bus Pick-up from Downtown San Diego

7:30- & Continental Breakfast

8:00 am  Registration and Check-In

8:30 am  Welcome
  Savio L-Y. Woo, PhD, DSc

8:35 am  Opening Remarks
  YC Fung, PhD

8:45 am  Logistics
  Alejandro Almarza, PhD

Podium Session 1: ACL and ACL Reconstruction

8:50 am  Keynote Lecture
  Does Screw Placement Influence The In Vivo Results of an Osteoconductive Bioabsorbable Composite Interference Screw?
  WR Walsh, N.Cotton, R Oliver, F Vizesi, P Smitham, Y Yu, W Bruce

9:05 am  T2 Relaxation Time of the Reconstructed ACL and Regenerated Semitendinosus Tendon After Operation
  R Kuramochi, A Sanada, T Fukubayashi

9:20 am  Rotational Laxity of ACL Deficient and Reconstructed Knees
  N Zheng, B Gao, MW Moser, PA Indelicato

9:25 am  Roentgen Stereophotogrammetric Analysis to Determine the Causes of an Increase in Anterior Laxity in Cadaveric Knees Reconstructed with a Soft Tissue Anterior Cruciate Ligament Graft
  CK Smith, ML Hull, SM Howell

9:30 am  Functional Assessment of the Knee in Children Following Bone-Patellar Tendon-Bone Autograft ACL Reconstruction
  R Lyon, X Liu, J Hung, T Kernozek

9:35 am  Discussion

9:45 am  Periosteum-Derived Osteoprogenitor Cells on Tendon-Bone Healing in Anterior Cruciate Ligament Reconstruction in Rabbits
  CH Chen, HW Liu, CM Yu, IH Lin, KC Wu, GH Hsieh
10:00 am  A Bioscaffold to Improve Healing of a Patellar Tendon Defect After Graft Harvest for ACL Reconstruction  
*S Karaoglu, MB Fisher, R Liang, YC Fu, SD Abramowitch, SL-Y. Woo*

**Break and Poster Session 1**

10:15 - 10:30 pm  Prediction of Tendon Remodeling Based Upon Mono Nuclear Macrophage Phenotype  
*SF Badylak, JE Valentin, AM Stewart-Akers*

Lateral Menisectomy Affects in vivo Ovine Stifle Joint Biomechanics  
*JE Beveridge, JJY Brown, SP Darcy, CA Sutherland, JM Rosvold, JL Ronsky, NG Shrive, CB Frank*

Estimation of In Vivo Forces During Gait in an Ovine Stifle Joint Requires Motion Reproduction to an Accuracy of Less Than 0.5 mm  
*SP Darcy, JM Rosvold, JE Beveridge, DT Corr, CA Sutherland, JY Brown, LL Marchuk, CB Frank, NG Shrive*

Correlation of Knee Contact Angle and Peak Ground Reaction Force with Peak Acceleration in Jump Landing  
*NG Elvin, AA Elvin, M Torry, SP Arnoczky*

Proteoglycan 4 Distribution in the Goat Infraspinatus Tendon: A Basis For Interfascicular Lubrication  
*T Funakoshi, LD Higgins, JJP Warner, TM Schmid, HP Hsu, T Gotterbarm, SM Vickers, M Spector*

Stress Relaxation of Tendon Fascicles at the Microstructural Level  
*HRC Screen*

Biochemical Analysis of Anatomical Reconstruction After Combined Injury of the Posterior Cruciate Ligament and Posterolateral Corner  
*H Ishigooka, T Sugihara, H Fujiya, M Beppu*

Nerve Growth with Factor Promotes Vascularity in Healing Ligament  
*T Mammoto, RA Seerattan, KR Forrester, CA Leonard, RC Bray, PT Salo*

A Method for Modeling Ligament Fibers in the Carpus  
*MJ Rainbow, JJ Crisco, DC Moore, E Akelman, SW Wolfé*

Anterolateral Rotational Knee Instability of the Knee Joint: Role of Intra– and Extra-Articular Stabilizers  
*T Zantop, T Schuhmacher, S Schanz, MJ Raschke, Petersen W*
Vanadate Affects the Healing of Medical Collateral Ligament
D. Jiang, Z. Li

Three-dimensional culture of tenocytes in uniaxial microchannels for tendon engineering
P. Bagnaninchi, Y. Yang, N. Maffulli, R.K. Wang, A. El Haj

Podium Session 2: Mechanobiology

10:45 am  Keynote Lecture
Cyclic Loading Inhibits Activation of the Apoptotic Pathway Caused by Loss of Homeostatic Tendon Strain: The Importance of the Mechanobiological "Survival Signal"
M. Egerbacher, O. Caballero, M. Lavagnino, K. Gardner, S.P. Arnoczky

11:00 am  Time Dependence of the Effect of Cyclic Tensile Strain on Collagen Production in Isolated Tendon Fascicles
E. Maeda, D.A. Lee, D.L. Bader, J.C. Shelton

11:05 am  The Effect of Stress-Deprivation and Exercise on the ratio of TIMP/MMP mRNA expression in tendons: an in-vitro experimental study
K. Gardner, S.P. Arnoczky, O. Caballero, M. Lavagnino

11:10 am  Matrix Metalloproteinases and a Related Factor in Ligament Stress-Deprivation

11:15 am  Discussion

11:25 am  Mechanical and Morphological Bases of Fatigue in Live Tendons

11:40 am  The Effect of Cytokine Inactivation on Stress-Deprived Patellar Tendons
H. Tohyama, E. Kondo, S. Miyatake, T. Katsura, K. Yasuda

11:55 am  Intermittent Pneumatic Compression Enhances Healing in a Tendon Repair

12:00 pm  Beneficial Effects of Low Intensity Pulsed Ultrasound (Lipus) on Tendon Depend on Time of Application
W.T. Shum, S.C. Fu, L. Qin, W.N. Wong, K.M. Chan, L.K. Hung

12:05 pm  Divergent Early Response of Gene Expression in Fatigue Loaded and Lacerated Rat Patellar Tendons
12:10 pm  **Discussion**

12:20-  **Lunch**

1:20 pm  Podium Session 3: Bioscaffolds and Cellular Therapies

**1:20 pm**  **Keynote Lecture**
Embryonic and Post-Natal Development of Murine Tendon and Ligament Tissues  
*D Butler, C Frede, K Chokalingam, J Florer, S Hunter, C Gooch, R Wenstrup*

**1:35 pm**  **Insulin-Like Growth Factor Binding Protein-4 Decreases Collagen Expression and Content in Tendon Explants**  
*LA Dahlgren, SC Harvey, AJ Nixon*

**1:50 pm**  **Nerve Growth Factor Improves Mechanical Properties of Healing Ligament**  
*T Mammoto, KD Paulson, RA Seerattan, CA Leonard, GM Thornton, RC Bray, PT Salo*

**2:05 pm**  The Role of Osteopontin in Tendon Tissue Remodeling After Denervation-Induced Mechanical Stress Deprivation  
*N Mori, T Majima, N Iwasaki, S Kon, C Kimura, A Minami, T Uede*

**2:10 pm**  **Platelet-Rich Plasma Enhances Cell Proliferation and Gene Expression of Matrix Metalloproteinases and Growth Factors of Human Tendon Cells in vitro**  
*AE van der Windt, M de Mos, HT. van Schie, H Jahr, H Weinans, JAN Verhaar, GJVM van Osch*

**2:15 pm**  **Biohybrid Aggrecan-Containing Hydrogels for Ligament Tissue Engineering**  
*K S Brink, JJ Lim, JD Weaver, DM Doroski, JS Temenoff*

**2:20 pm**  **Discussion**

**2:30 pm**  **A Novel Knitted Silk Scaffold for Ligament Tissue Engineering Application**  
*H Liu, Y Wang, H Fan, SL Toh, JCH Goh*

**2:45 pm**  **Chemoattractance of a Remodeled ECM Scaffold and Fate of the Recruited Bone Marrow Derived Cells**  
*TW Gilbert, JM Myers-Irvin, AJ Yates, SF Badyak*
3:00 - 3:30 pm

**Break and Poster Session 2**

Biomechanical Evaluation of Minimal Invasive Repairs for Complete Acromioclavicular Joint Dislocation
*M Weilmann, T Zantop, A Weimann, MJ Raschke, W Petersen*

ACL Deficient Knee is Likely to Avoid Pivot Shift Phenomenon During High Demand Activity
*K Takeda, T Nagura, T Otani, Y Kiriyama, T Hasegawa, H Matsumoto, Y Toyama*

Effects of Passage on Ligament Fibroblasts: Implications for Functional Tissue Engineering
*AJ Almarza, SM Augustine, SL-Y. Woo*

Damage Accumulation of Tendon Fascicles During Fatigue Tests
*M Tamiwa, DL Bader, JC Shelton*

Local Bone Loss After ACL Reconstruction a PQCT Study in a Rabbit Model
*CY Wen, PY Lui, SC Fu, MWN Wong, KM Lee, L Qin, WY Hung, KM Chan*

Enhancing Tendon and Ligament Tissue Engineering Literature Searched Via Structured Annotation
*A Jain, P Velayutham, M Wagner, DL Butler*

Analysis of Level and Inclined Gait in a Sheep Model
*JT Shearn, MT Herfat, D Bailey, ME Mehl, C Gooch, DL Butler*

Biocompatibility of an ECM/Porous Titanium Composite Scaffold to Support Soft Tissue Ingrowth
*TW Gilbert, DO Freytes, K Benintende, DE Krzeminski, JL Woods, EP Yu, HR Piehler, SF Badylak*

Anatomic Versus Non-Anatomic Double Bundle ACL Reconstruction: Impact of Femoral PL Bundle Tunnel Location on the Resulting Knee Kinematics
*T Zantop, N Diermann, S Schanz, MJ Raschke, Petersen W*

The Effects of HGF on Collagen, FN, and α-SMA Expression Induced by TGF-β1 in Cultured Rat MCL Fibroblasts
*Z Li, D Jiang*

Collagen Fiber Based ACL Graft
*M Weber, J Stehle, A Heymer, U Noeth*
IL-1β Increases Cell-Cell Connection by Up-Regulating the Expression of Connexin 43 in Human Tenocytes

J Qi, L Chi, D Bynum, AJ Banes

Podium Session 4: Biomechanics of the Knee and the Shoulder

3:30 pm Keynote Lecture
Development of a Novel Model for Rotator Cuff Pathology: The Rabbit Subscapularis Muscle
R Grumet, S Hadley, TQ Lee, R Gupta

3:45 pm The Role of the Physical Environment on the Structure, Composition, and Biomechanics of the Developing Supraspinatus Enthesis
S Thomopoulos, D Zeltser, K Kousari, R Das, HM Kim, L Galatz

4:00 pm Effect of Rotator Cuff Muscle Imbalance on Glenohumeral Contact Pressure and Humeral External Rotation: A Cadaveric Study
T Mihata, J Gates, MH McGarry, J Lee, M Kinoshita, TQ Lee

4:05 pm A Comparison of Passive Flexion-Extension to Normal Gait in the Ovine Stifle Joint
SP Darcy, JE Beveridge, JM Rosvold, DT Corr, CA Sutherland, JY Brown, LL Marchuk, CB Frank, NG Shrive

4:10 pm An Alternate Single Femoral Tunnel Method for Double Bundle Anterior Cruciate Ligament Reconstruction with the Use of an Over-the-top Graft
S Noorani, O Dede, S Karaoglu, Savio L-Y Woo

4:15 pm Discussion

4:25 pm Reconstruction of the Injured Anterior Cruciate Ligament Does Not Restore Normal Patellofemoral Cartilage Contact Kinematics
SK Van de Velde, R Papannagari, LE DeFrate, TJ Gill, JM Moses, G Li

4:40 pm Lubrication, Friction, and the ACL-deficient Knee
E Teeple, BC Fleming, KA Elsaid, GD Jay, JJ Crisco, AP Mechrefe

4:55 pm Effect of Sectioning the Posteromedial Structures on Posterior Tibial Translation in the PCL Deficient Knee
W Petersen, S Loerch, S Schanz, MJ Raschke, T Zantop

5:10- Closing Remarks
5:20 pm Savio L-Y. Woo, PhD, DSc

5:30 pm Bus Leaves UCSD Campus
Dinner and Award Ceremony
Golden City Restaurant
5372 Kearny Villa Rd
San Diego, CA 92123

6:00- Cash Bar
6:45 pm

7:00- Dinner and award ceremony