5 February (Wednesday)

10:00 - 18:30  Registration Think Tank

12:30 - 19:00  Biologic Association Think Tank (upon invitation only)

12:30 - 14:00  Session 1
Moderator: Farr Jack (US)
12:30 - 13:00  Kimera: Chondrogenic Exosome Hydrogel for Articular Cartilage Regeneration  
Sanders Jason (US)
13:00 - 13:30  Organogenesis: Amniotic Suspension Allograft Improves Pain and Function in Osteoarthritis - The Evidence  
Mowry Katie (US)
13:30 - 14:00  Samumed: Lorecivivint: A First-in-Class, Disease-Modifying Drug Candidate for Knee Osteoarthritis.  
Tambiah Jeyanesh (US)

14:00 - 14:30  Break

14:30 - 16:00  Session 2
Moderator: Farr Jack (US)
14:30 - 15:00  Lipogems: Micro-fragmented Adipose Tissue: Basic Science and Clinical Evidence  
O’Connell Julie (US)
15:00 - 15:30  Orthopedic Stem Cell Research Lab, Regenerative Medicine Institute, Cedars-Sinai: Identification of Cell and Protein Biomarkers in PRP to Improve Individual Pain Outcomes in Knee OA  
Sheyn Dmitriy (US)
15:30 - 16:00  Regenacell Therapy: Marrow Cellution Device And The CellFUSE - Bone Graft Substitute  
Chabot Jeff (US)

16:00 - 16:30  Break

16:30 - 18:00  Session 3
Moderator: Farr Jack (US)
16:30 - 17:00  Keck School of Medicine of USC: Evaluation of Engraftable Human Pluripotent Stem Cell-Derived Chondrocytes in a Long-Term Preclinical Pig Model of Focal Cartilage Injury  
Evseenko Denis (US)
17:00 - 17:30  Bioventus: Preclinical Characterization and Clinical Development Plans for PTP-001, a Novel Human Tissue Biologic in Development For The Treatment of Osteoarthritis.  
Pavesio Alessandra (US)
17:30 - 18:00  Biorez: The First Look at BioBrace™, a New, Fully Resorbable, Bioactive Tissue Regeneration Scaffold For The Repair of Ligament and Tendons  
Rocco Kevin (US)
18:00 - 19:00  
**Closing & Happy Hour**
*Presenter: Farr Jack (US) Presenter: Mandelbaum Bert (US) Presenter: Dragoo Jason (US)*

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### 6 February (Thursday)

**6:30 - 18:00**

**Registration Biologic Association Summit**

**7:30 - 9:30**

**Module 1 - Biologics: What is Currently Available?**
*Moderator: Frank Rachel (US) Moderator: Sherman Seth (US)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:30 - 07:45</td>
<td>1.1 The Importance of the Biologic Association</td>
<td>Mandelbaum Bert (US)</td>
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<tr>
<td>07:45 - 08:00</td>
<td>1.2 Platelet Rich Plasma</td>
<td>Cole Brian (US)</td>
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<tr>
<td>08:00 - 08:15</td>
<td>1.3 Bone Marrow Concentrate</td>
<td>Muschler George (US)</td>
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<tr>
<td>08:15 - 08:30</td>
<td>1.4 Adipose Cellular Therapy</td>
<td>Dragoo Jason (US)</td>
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<tr>
<td>08:30 - 08:45</td>
<td>1.5 Amniotic Cellular Therapy</td>
<td>Tokish John (US)</td>
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<tr>
<td>08:45 - 09:00</td>
<td>1.6 Short and Long Acting Cortisone: Are they Still Current?</td>
<td>Sherman Seth (US)</td>
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<td>09:00 - 09:15</td>
<td>1.7 Viscosupplementation</td>
<td>McIntyre Louis F. (US)</td>
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**Questions & Answers**

**9:30 - 10:00**

**Coffee Break**

**10:00 - 12:00**

**Module 2 - Regulatory Process and Ethical Implications**
*Moderator: Piuzzi Nicolas (US) Moderator: Vangsness, Jr. C. Thomas (US)*

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 - 10:15</td>
<td>2.1 Overview of Regulatory Process</td>
<td>Anz Adam (US)</td>
</tr>
<tr>
<td>10:15 - 10:30</td>
<td>2.2 Implications of Off-Label Promotion to Your Practice and Reputation: Staying Out of Trouble</td>
<td>Bruder Scott (US)</td>
</tr>
<tr>
<td>10:30 - 10:45</td>
<td>2.3 Nomenclature Challenges</td>
<td>Murray Iain (UK)</td>
</tr>
<tr>
<td>10:45 - 11:00</td>
<td>2.4 Rogue Stem Cell Clinics and Complications</td>
<td>Halbrecht Joanne (US)</td>
</tr>
<tr>
<td>11:00 - 11:15</td>
<td>2.5 Expansion and Culture: What Does This Mean and Why Can’t We Do It?</td>
<td>Leucht Philipp (US)</td>
</tr>
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<td>11:15 - 11:30</td>
<td>2.6 Successes, Dead-Ends, and Open Questions in Biologics Research from the Basic Science Perspective</td>
<td>Chubinskaya Susan (US)</td>
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<td>11:30 - 11:45</td>
<td>2.7 Past Present and Future of “Stem Cells”</td>
<td>Caplan Arnold (US)</td>
</tr>
</tbody>
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**Questions & Answers / Discussion**

**12:00 - 13:00**

**Lunch Break**
13:00 - 15:15 | **Module 3 - Clinical Applications**  
**Moderator:** Zaslav Kenneth (US) **Moderator:** Tokish John (US)  
13:00 - 13:15 | **3.1 Tendonitis (LE, Patellar, Achilles)**  
Dragoo Jason (US)  
13:15 - 13:30 | **3.2 Osteoarthritis**  
Chu Constance (US)  
13:30 - 13:45 | **3.3 Tendon Tears (Hamstring, Elbow UCL)**  
Tokish John (US)  
13:45 - 14:00 | **3.4 Augmentation to Surgery - ACLR**  
Mandelbaum Bert (US)  
14:00 - 14:15 | **3.5 Augmentation to Surgery - Rotator Cuff**  
Cole Brian (US)  
14:15 - 14:30 | **3.6 Augmentation to Surgery - Cartilage Repair**  
Minas Tom (US)  
14:30 - 14:45 | **3.7 Augmentation to Surgery - Scaffolds**  
McIntyre Louis F. (US)  
14:45 - 15:00 | **3.8 Biologics in Athletes - What Should We Do In-Season?**  
Jones Kristofer (US)  
15:00 - 15:15 | Questions & Answers / Discussion  

15:15 - 15:45 | Coffee Break  

15:45 - 17:15 | **Module 4 - Office Logistics and Billing**  
**Moderator:** Dragoo Jason (US) **Moderator:** Zaslav Kenneth (US)  
15:45 - 16:00 | **4.1 PRP in the Office - How I Do it & How I Code**  
Cole Brian (US)  
16:00 - 16:15 | **4.2 BMC in the Office - How I Do it & How I Code**  
Saris Daniel BF (US)  
16:15 - 16:30 | **4.3 Adipose in the Office - How I Do it & How I Code**  
Halbrecht Joanne (US)  
16:30 - 16:45 | **4.4 BMC in the OR - How I Do it and How I Code**  
Gomoll Andreas (US)  
16:45 - 17:00 | **4.5 Adipose in the OR - How I Do it and How I Code**  
Dragoo Jason (US)  
17:00 - 17:15 | Questions & Answers / Discussion  

17:15 - 18:30 | **Module 5 - The Biologic Association**  
**Moderator:** Dragoo Jason (US) **Moderator:** Mandelbaum Bert (US)  
17:15 - 17:30 | **5.1 BA Website Presentation**  
Dragoo Jason (US)  
17:30 - 17:45 | **5.2 Advocacy and Biologics**  
Halbrecht Joanne (US)  
17:45 - 18:00 | **5.3 Repository and Registry**  
Tokish John (US)  
18:00 - 18:15 | **5.4 Development of Best Practice (Real Time Dashboard, How do we Review Literature in Real Time)**  
Frank Rachel (US)  
18:15 - 18:30 | **5.5 Summary of the Think Tank**  
Farr Jack (US)
7 February (Friday)

7:00 - 12:00  Registration Biologic Association Summit

7:30 - 9:30  Module 6 - Presentations by the Biologic Association Summit
Moderator: Frank Rachel (US)  Moderator: Sherman Seth (US)
07:30 - 07:40  6.1 Current Landscape in Orthobiologics
Dragoo Jason (US)
07:40 - 07:50  6.2 The Future of Orthobiologics
Mandelbaum Bert (US)
07:50 - 08:00  6.3 Orthobiologics Registry - Opportunity or Challenge?
Maloney William (US)
08:00 - 08:15  6.4 Orthobiologics in Tendon (RCR, LE Examples)
Cole Brian (US)
08:15 - 08:30  6.5 Orthobiologics in Muscle
Huard Johnny (US)
08:30 - 08:45  6.6 Orthobiologics in Cartilage Repair
Gobbi Alberto (IT)
08:45 - 09:00  6.7 Orthobiologics in Early OA
Zaslav Kenneth (US)
09:00 - 09:15  6.8 Orthobiologics in Bone
Anz Adam (US)
09:15 - 09:30  Questions & Answers / Discussion

9:30 - 9:40  Official BA Summit Adjourn / Break

9:40 - 12:00  Module 7 - Optional BA/ISMF Ultrasound & Orthobiologics Skills Workshop
Instructor: Batten Casey G. (US)  Instructor: Malanga Gerard (US)  Instructor: Roh Eugene (US)  Instructor: Sampson Steven (US)  Instructor: Yoon Steve (US)
09:40 - 09:55  Intro to Orthobiologics Skills Workshop & Ultrasound Overview
Batten Casey G. (US)
09:55 - 10:00  Transition to Workshop
10:00 - 12:00  Hands-On Workshop: Ultrasound and Orthobiologics Skills Workshop