[Session Topics]

- **Biomaterial based strategies in cartilage repair**
  This session will cover the latest development regarding biomaterials for cartilage repair and regeneration. New cell delivery methods, cartilage tissue engineering, extracellular matrix materials, and 3D printing of cartilage constructs will be presented. Particular emphasis will be placed on the cell to biomaterial interactions and its effects on cartilage regeneration

- **What defines success in cartilage repair?**
  This session concentrates on defining the current criteria of 'successful' cartilage repair. Structural and functional aspects of a truly 'successful' cartilage will be discussed. Histological assessments, imaging modalities, as well as novel molecular biomarkers will be presented. We take a close look at novel biomarkers and other noninvasive modalities that potentially reflect successful cartilage repair.

- **Emerging therapeutics**
  This session will review emerging 'bio-orthopedic' therapeutics', such as injectable aspirates, genetically modified stem cell injections, and engineered cartilage.

- **What are the requirements for the stem cells to be used in therapeutics?**
  This session will aim to clarify the requirements of stem cells for successful cartilage repair. What needs to be characterized in current stem cell technology in order to be applied in clinic?
  Stem cell differentiation, paracrine effects, and role of stem cells in osteoarthritis will be discussed.

- **Experimental challenges for cartilage regeneration based on mode of action**
  For understanding current research outcomes and further advancing our research outcomes, mode of action in the latest technology is of utmost importance. This session focuses on the mode of action of novel MSCs, iPS, and tissue engineered cartilage

- **Recent insights into the pathogenesis of osteoarthritis**
  Cartilage repair cannot be discussed outside the context of osteoarthritis. This session reviews the recent advancements in knowledge regarding pathogenesis of osteoarthritis

- **Ankle osteoarthritis, where we are, and where to go?**
  This session will concentrate on osteoarthritis and cartilage defects of the ankle joint. Current treatment modalities and future developments will be discussed.

- **Biological challenges for OA treatment with scientific basis**
  This session will discuss the hurdles that osteoarthritis presents to us, with scientific basis and implications for therapy.

- **Meniscus assessment for future treatment strategies**
  Meniscus, together with hyaline cartilage, is of key importance in the knee joint. We share the latest knowledge regarding assessment and pathogenesis of the semilunar cartilage.

- **Solutions for failed cartilage repair**
  Why do we fail to repair cartilage? The current session tackles this problem with assessment of treatment options under the orthopedic surgeons' sleeve when dealing with failed cartilage repair.

- **Combined surgeries in cartilage repair**
  Correction of biomechanically abnormal knee joint status is important during cartilage repair procedures for optimal results. This session reviews the latest advances in concomitant surgical procedures performed during cartilage repair.

- **Clinical experiences of stem cells for cartilage repair**
  Recent clinical trials have utilized various types of stem cells for cartilage repair. We discuss the clinical experiences of the most popular stem cell sources and future perspectives on clinical application.

- **Cartilage battlefield: Go or No go, if Go, which way?**
  The orthopedic community has recently witnessed a plethora of modified bone marrow stimulation techniques, autologous chondrocyte implantation, and PRP injections, resulting in many confused clinicians. Old vs. new, which side are you on?

- **Quo vadis: Decision making, and clinical results of cartilage repair**
  In cartilage repair, not one gold standard exists. We discuss latest aspects of decision making and patient selection regarding the latest technique in cartilage repair

- **Meniscus and osteoarthritis**
  The meniscus is another challenging component in the knee joint to surgeons. With functional restoration in mind, we will present the latest aspects of meniscal repair and meniscal allograft transplantation.

[Symposium]

Recent highlights in cartilage repair
The field of cartilage repair is one of the most dynamic subjects in surgery. We review the recent progress in cartilage repair techniques.

[Panel Discussion]

Popular methods of cartilage repair in Asian countries

- **Future trends in cartilage repair**

This panel discussion will give us an insight of the atmosphere regarding cartilage repair in the Asian community. We welcome all participants around Asia and the world to present current practices in his or her respective nation, as well as future trends in cartilage repair.