

## **S2-1 Frontier of ceramic-related biomaterials**

### **SHORT DESCRIPTION:**

As we enter the super-aging society, biomaterials with high functionality are required in the biomedical field. In addition to the conventional functions of ceramic-related biomaterials, which have excellent biocompatibility and bioabsorbability, are required to have new functions. This symposium will comprehensively discuss issues from basic science to clinical applications for the functional design of such next-generation biomaterials and explore new developments in the creation of next-generation ceramic-related biomaterials. This symposium will also discuss the functional design and application development of biomaterials by medical and dental engineering, such as cancer therapy support materials, antimicrobial materials and bioimaging materials, based on various perspectives on the interaction between materials and the organism. We hope that this symposium will provide an opportunity to share ideas and visions on these technologies and to promote exchange and fellowship among participants from academia, industry and medicine from around the world. We invite you to take this opportunity to visit Sapporo and actively participate in this symposium.

Jointly organize with 'Asian BioCeramics 2026 (ABC2026)'

### **SESSION TOPICS:**

- Bioactive and Bioadaptive materials
- Dental and orthopedic materials
- Soft tissue applications
- Novel therapeutic strategies, drug delivery, and antibacterial properties
- Biosensors
- Cosmetic, pharmaceutical, and nanomedicine
- Hybrid materials for biomedical applications
- Additive manufacturing for biomedical applications
- Surface modification for biomedical applications
- Bio-inspired, bio-synthetic and biomimetic materials
- In vivo and in vitro study of biomaterials

### **ORGANIZERS:**

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### **SYMPOSIUM AWARD INFORMATION:**

Our symposium offers "Best Student Oral Presentation Award" and "Best Young Researcher Oral Presentation Award". Students and researchers who are 36 years of age or younger (as of Sep. 11, 2026)\* are eligible to enter this award competition. The applicants must be the first and presenting authors of the abstracts. Selection

will be made by the symposium organizers from abstracts accepted for oral presentations. Approximately three students and one young-researcher award recipients selected from among the candidates will receive a certificate on the final day of the symposium.

\*The age limit can be modified if there is a specified reason, such as maternity leave, parental leave, or nursing care.