IADR INTERNATIONAL ASSOCIATION FOR DENTAL, ORAL, AND CRANIOFACIAL RESEARCH

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Advances in Craniofacial Stem Cells: Mechanisms to Regenerative Therapies

Alexandria, VA, USA – A symposium highlighting groundbreaking research on the role of stem cells in craniofacial tissue maintenance and regeneration was presented at the 103rd General Session of the IADR, which was held in conjunction with the IADR/Pan European Regional Congress on June 25-28, 2025 in Barcelona, Spain.

This symposium highlighted groundbreaking research on the role of stem cells in craniofacial tissue maintenance and regeneration, covering both foundational science and the latest advances in stem cell-based therapeutic approaches. The first presentation, by Wei Hsu, Harvard University, Cambridge, USA explored the heterogeneity of Suture Stem Cells, focusing on key stem cell populations and their regulatory mechanisms. The second presentation, by Jianfu Chen, University of Southern California, Los Angeles, USA investigated how skeletal progenitor cells interact with macrophage and lymphatic niches to promote skull injury repair in super-regenerative spiny mice. Takamitsu Maruyama, ADA Forsyth, Cambridge, USA introduced a newly discovered stem cell niche in the posterior region of mandibular condylar cartilage and examined the role of microRNAs in regulating this population. The final presentation, by Nan Hatch, University of Michigan, Ann Arbor, USA discussed advances in stem cell-based tissue reconstruction, with an emphasis on cranial suture regeneration through a combination of stem cell biology, signaling regulation, and 3D scaffold technologies.

Organized by Takamitsu Maruyama and Nan Hatch, the Symposium, “Advances in Craniofacial Stem Cells: Mechanisms to Regenerative Therapies” took place on Wednesday, June 25 at 1:30 p.m. CEST (UTC+2).

About IADR
The International Association for Dental, Oral, and Craniofacial Research (IADR) is a nonprofit organization with a mission to drive dental, oral, and craniofacial research for health and well-being worldwide. IADR represents the individual scientists, clinician-scientists, dental professionals, and students based in academic, government, non-profit, and private-sector institutions who share our mission. Learn more at www.iadr.org.