

Symposium REPORT

International Symposium: Nature's Pharmacy for a Failing Heart — Plant-Derived Biomaterials in Cardiac Regeneration

11 August 2026 · IRCBM, COMSATS University Islamabad, Lahore Campus · in collaboration with the University of Strasbourg, France, under the HEC–PERIDOT Project

The International Symposium on “**Nature's Pharmacy for a Failing Heart: Plant-Derived Biomaterials in Cardiac Regeneration**” was successfully organized on **11 August 2026** by the Interdisciplinary Research Centre in Biomedical Materials (IRCBM), COMSATS University Islamabad (CUI), Lahore Campus, in direct collaboration with the University of Strasbourg, France. Funded under the prestigious **HEC–PERIDOT** bilateral research grant framework, the symposium served as a multidisciplinary platform bridging natural product chemistry, biomaterials tissue engineering, and clinical cardiology.

The event brought together international experts, cardiovascular surgeons, research faculty, and early-career scholars to present cutting-edge strategies for myocardial repair and vascular regeneration. Key focus areas included plant-derived bioactive compounds, acellular/recellularized extracellular matrix (ECM) constructs, and bioactive cardiac patches designed to induce endogenous tissue repair. The symposium was attended by distinguished faculty members from IRCBM, along with enthusiastic participation from M.Phil and PhD students from LCWU, GCU, PU, UOL, COMSATS, Minhaj University, Kingston College Lahore, and Khyber Medical University, as well as Brock University (Ontario, Canada) and participants joining from Belgium, Türkiye, and China.

The keynote speaker, **Prof. Dr. Valérie Schini-Kerth**, from the University of Strasbourg, France, presented her research on natural products to promote vascular and cardiac health, focusing on the significance of natural phytochemicals in the repair and regeneration of cardiac tissue and the formation of blood vessels. The invited speaker **Dr. Syed Raffay Ali Gilani**, FCPS, FACS, Consultant Cardiac Surgeon, Jinnah Hospital, Lahore, presented on “Tissue Engineered Materials in Cardiovascular Surgery: The Surgeon's Perspective.” **Prof. Dr. Faiza Sharif**, Professor & Principal Investigator, IRCBM, CUI Lahore Campus, presented research from the PERIDOT project on the “Fabrication of Cardiac Patches to Induce Endogenous Cardiomyocyte Regeneration.” **Dr. Hira Muzammil**, part of the PERIDOT project, visited IRCBM in person to deliver an invited talk on the “Reversal of Age-Related Diastolic Dysfunction in Rats by Procyanidins and Oenothien B, with Suppression of eNOS-NO/ROS Imbalance and Reduced Left Ventricular Remodeling and Fibrosis.” **Dr. Madiha Saeed**, Assistant Professor at IRCBM, conducted a training session on research funding and the international PhD roadmap.

Key Scientific Highlights & Outcomes

- **Clinical-Translational Integration:** Dr. Syed Raffay Ali Gilani provided key clinical insights regarding surgical handling, suture strength, and bio-integration requirements for cardiac patches, ensuring engineering designs align with surgical reality.
- **Plant-Derived Bioactive Molecules:** Discussions highlighted the therapeutic potential of polyphenols (procyanidins and oenothien B) in addressing oxidative stress (eNOS-NO/ROS imbalance), reducing left ventricular remodeling, and treating age-related cardiac dysfunction.
- **Scaffold Engineering & Regeneration:** Prof. Dr. Faiza Sharif showcased progress in developing acellular matrix (AM) and recellularized cardiac patches designed to foster cardiomyocyte regeneration.
- **International Collaboration Growth:** The HEC–PERIDOT initiative strengthened research linkages between CUI Lahore and the University of Strasbourg, establishing pathways for joint publications and student exchanges.

Event Gallery



Inaugural and welcome announcement by Prof. Dr. Muhammad Yar, Prof. Dr. Anila Asif, and Prof. Dr. Faiza Sharif



All speakers and participants — official group photograph



Student researchers engaging in open Q&A and audience discussion

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