

## Preface

We are delighted to present the proceedings of the Chitose International Forum 2024 (CIF24), held on September 3-4, 2024, at the Chitose Institute of Science and Technology. This annual conference serves as a platform for researchers, practitioners, and industry experts to convene and discuss the latest advancements in science and technology.

The theme of CIF24 was “Advanced Research and Infrastructure for Material DX,” focusing on the digital transformation in a wide range of fields including atomic resolution electron microscopy, materials science, and biomaterials. Our institute is a member of the Advanced Research Infrastructure for Nanomaterials, funded by MEXT, Japan, and the participants of the conference reflect our commitment in this field.

The program included a keynote address, international and domestic invited presentations oral contributions, and a poster session, fostering an environment conducive to knowledge exchange and collaboration.

We extend our gratitude to all participants, presenters, and contributors who made CIF24 a resounding success. Special thanks are due to the organizing committee and student volunteers for their dedication and hard work in bringing this event to fruition.

We hope that the insights and discussions captured in these proceedings will inspire further research and innovation, contributing to the advancement of science and technology.

We look forward to welcoming you to future editions of the Chitose International Forum.

Sincerely,

Olaf Karthaus, Chairman of CIF24