Workshop on Materials and Imaging for Biomedical Applications

Location: Bldg. 4, Nagoya Institute of Technology, Gokiso-cho, Showa-ku, Nagoya 466-8555
Date: Monday 14th and Tuesday 15th September 2026

Organised in collaboration with JSPS KAKENHI Fund for the Promotion of Joint International Research (International Collaborative Research, 24KK0204) and JSPS Bilateral Program (JPJSBP120255706).

This workshop brings together researchers working in the interdisciplinary fields of biomaterials, biomedical imaging, and advanced fabrication technologies. The aim of the workshop is to promote academic exchange and foster new collaborations across diverse research areas related to biomedical science and engineering.
The workshop will consist of invited talks and poster sessions. We hope this workshop provides an opportunity for fruitful discussion, knowledge sharing, and the creation of new research connections.
We sincerely welcome your participation and hope you enjoy the workshop.

Invited Speakers:

Gavin Jell (University College London)
Julian Jones (Imperial College London)
Kazuyoshi Kanamori (Kyoto University)
Sarah Kuehne (Nottingham Trent University)
Hirogo Minamisawa (Nihon University)
Amirpasha Moetazedian (University of Hull)
Gowsihan Poologasundarampillai (King's College London)
Paolo Pozzi (Politecnico di Milano)
Kazumasa Suzuki (Nagoya University)
Yasuaki Tokudome (Osaka Metropolitan University)
Malgorzata Wiench (University of Birmingham)

Poster Session: Monday 14th September

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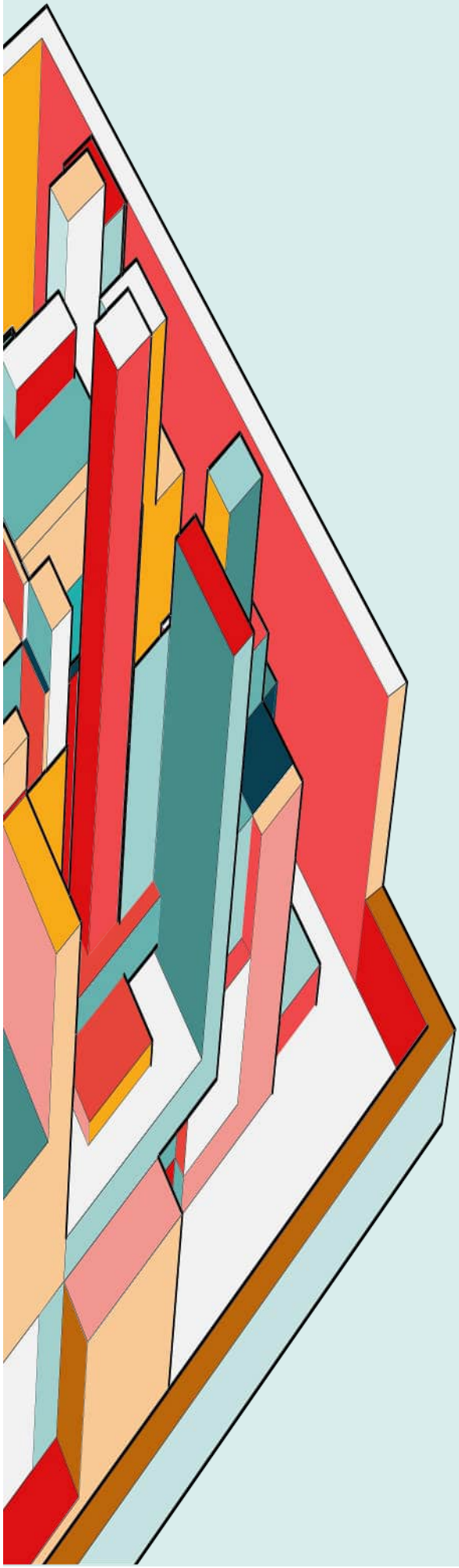
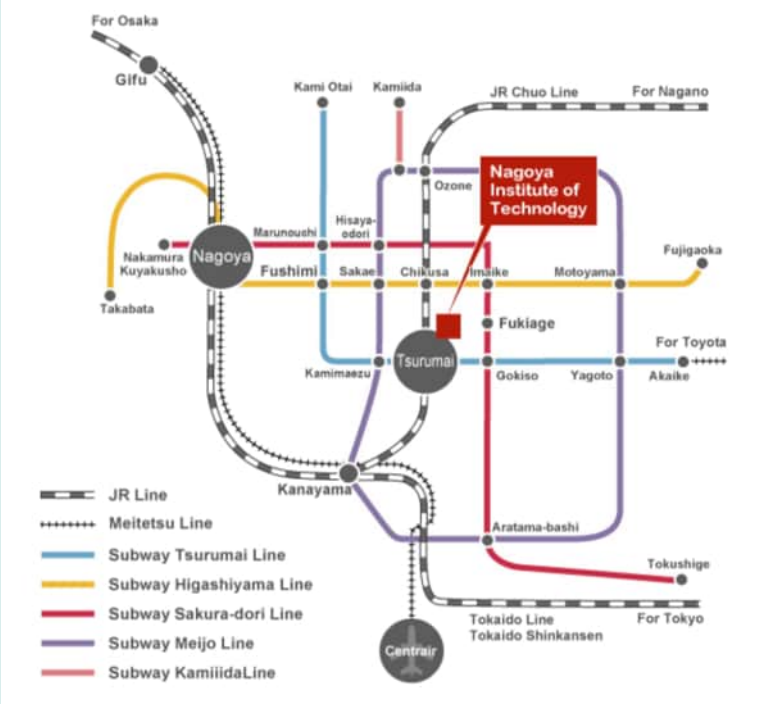
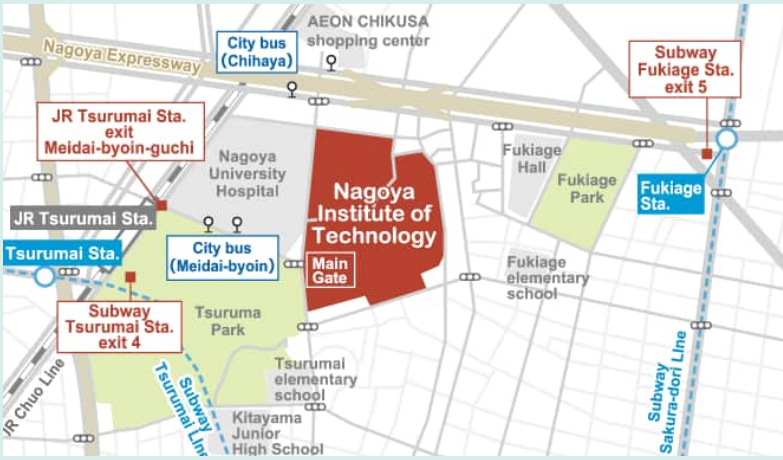


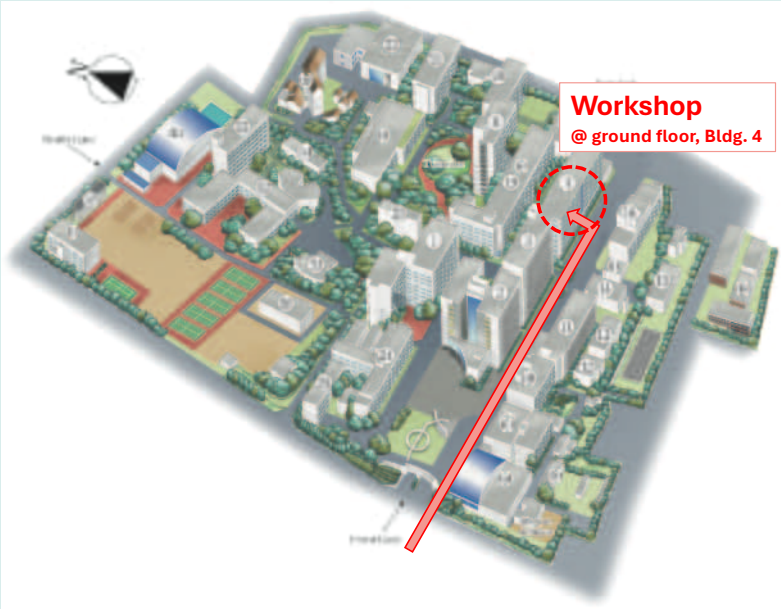
Railway route map



District map



Campus map



Day 1: Monday 14 September

13:30 Welcome

13:40-14:20 Julian Jones (Imperial College London)
"Bouncy Bioglass for Cartilage Regeneration"

14:20-15:00 Paolo Pozzi (Politecnico di Milano)
"Fast and aberration corrected 3D optical imaging of fluorescence in biomaterials through remote focusing oblique plane microscopy"

Break

15:20-15:50 Kazuyoshi Kanamori (Kyoto University)
"Turning silicones into aerogels and hydrogels: Toward new biomaterials"

15:50-16:30 Gowsihan Poologasundarampillai (King's College London)
"Bridging Materials Science and Medicine: Biomaterials and Commercial Translation"

16:30-17:00 Kazumasa Suzuki (Nagoya University)
"Ion-specific Regulation of Salivary Glycoprotein Adsorption on Apatite: Effects on Acid Resistance and Initial Bacterial Adhesion"

17:00-18:00 Poster and Networking Banquet

Day 2: Tuesday 15 September

13:00-13:40 Gavin Jell (University College London)
"Bioactive glasses for bone tissue engineering: in health and disease"

13:40-14:20 Malgorzata Wiench (University of Birmingham)
"Adaptable *in vitro* oral mucosa models - scRNA-seq-based characterisation, modifiable mechanical scaffold properties, biofilm challenge and high-throughput screening"

Break

14:40-15:10 Hirogo Minamisawa (Nihon University)
"Tailoring Ultrafine Hydroxyapatite: From Nanostructural Control via Ultrasonication to Biomedical Applications"

15:10-15:50 Amirpasha Moetazedian (University of Hull)
"From Blood Vessels to Microneedles: Innovations in 3D-Printed Biomaterials"

Break

16:10-16:40 Yasuaki Tokudome (Osaka Metropolitan University)
"Highly Concentrated Colloidal Dispersion of Nanoparticles for Biomedical and Environmental Applications"

16:40-17:20 Sarah Kuehne (Nottingham Trent University)
"Engineering Materials for Biofilm Control"

17:20 Closing Remarks

Poster Session

P-01: Seira Nakane, Yuko Matsukawa, Kazumasa Suzuki, Chikara Ohtsuki
(Nagoya University)
"Effect of α-TCP Volume Fraction on Apatite-Forming Ability of Calcium Phosphate–Hydrophilic Polymer Composites in Simulated Body Fluid"

P-02: Nanami Matsuura[1], Kazumasa Suzuki[2], Yasuaki Tokudome[3], Akiko Obata[1]
([1]Nagoya Institute of Technology, [2]Nagoya University, [3]Osaka Metropolitan University)
"TiO_2-coated sol-gel glass fibers with cotton-wool-like structure"

P-03: Minato Asai, Kazumasa Suzuki, Yuko Matsukawa, Chikara Ohtsuki
(Nagoya University)
"Effect of Ethylenediamine Content during Hydrothermal Treatment on the Zeta Potential of Carbon Dot-containing Layered Double Hydroxides for Drug Delivery Applications"

P-04: Kazumasa Ikedo[1·], Sota Futamura[1], Ryosuke Takayanagi[1], Sungho Lee[2·], Akiko Obata[1]
([1]Nagoya Institute of Technology, [2]National Institute of Advanced Industrial Science and Technology)
"Glass Structure and Ion Release Behavior of Zinc-containing Borate Invert Glass"

P-05: Masahiro Chino, Kazumasa Suzuki, Yuko Matsukawa, Chikara Ohtsuki
(Nagoya University)
"Osteoblast-like Cell Responses to Layered Calcium Phosphate–Carbon Dot Composites Prepared by Solvothermal Treatment"

P-06: Ai Maeno[1], Amirpasha Moetazedian[2], Gowsihan Poologasundarampillai[3], Akiko Obata[1]
([1]Nagoya Institute of Technology, [2]University of Hull, [3]King's College London)
"Fabrication and characterization of PGMS-derived silica-gel microneedles"

P-07: Sota Shimizu, Ai Takabatake, Naoki Tarutani, Shin-Ichi Takeda, Tetsuo Yamaguchi, Akio Yoneyama, Atsushi Nakahira, Yasuaki Tokudome
(Osaka Metropolitan University)
"Development of Thixotropic Inorganic Nanoparticle Dispersion and Their Application as Contrast Agents for X-ray Micro-CT"

P-08: Riku Amaike,[1] Kazumasa Suzuki, [1] Akiko Obata,[2] Yuko Matsukawa, [1] Chikara Ohtsuki [1]
([1]Nagoya University, [2] Nagoya Institute of Technology)
"Vapor-deposited TiO_2 Coating on a Cotton-wool-like Fibrous Scaffold for Photo-induced Modification of Surface Properties"

P-09: Ryosuke Takayanagi[1], Kazumasa Ikedo[1·], Sota Futamura[1], Sungho Lee[2], Akiko Obata[1]
([1]Nagoya Institute of Technology, [2]National Institute of Advanced Industrial Science and Technology)
"Effect of Zn incorporation on structure and dissolution behavior of borate glasses"

P-10: Ryoma Shinchi, Atsushi Nakahira, Yasuaki Tokudome
(Osaka Metropolitan University)
"Synthesis and Characterization of Highly Concentrated Dispersions of Mg-Al Layered Double Hydroxide Nanoparticles via Epoxide Ring-Opening-Induced Alkalinization"

P-11: Kohei Hosoki, Akiko Obata
(Nagoya Institute of Technology)
"Incorporation of MgO or ZnO into B_2O_3-CaO sol–gel glasses"