iCeMS
KYOTO UNIVERSITY
WPI Research Center

# *Institute for Integrated Cell-Material Sciences*

# 物質-細胞統合システム拠点

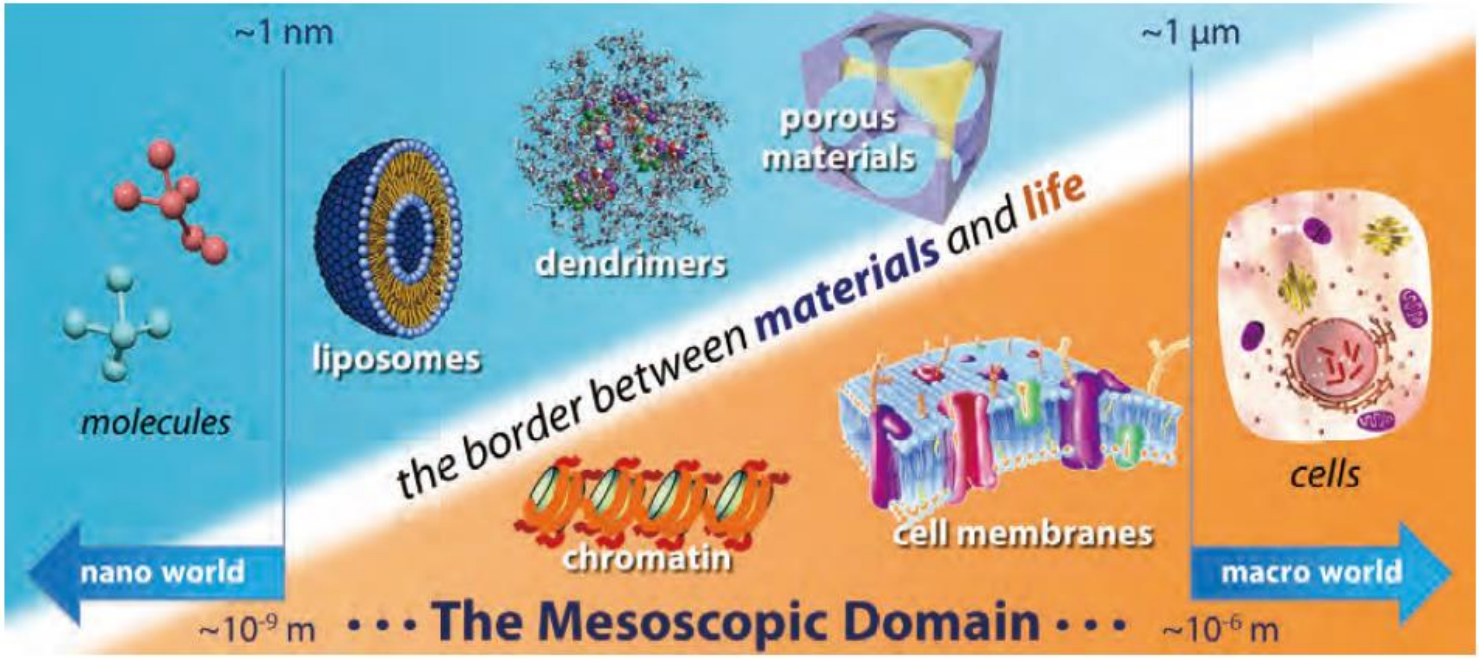
# *Overview of iCeMS*


- Started in 2007 as a WPI institute.
- Joined KUIAS in 2017.
- Focus is interdisciplinary cell biology and materials science

wpi World Premier International Research Center Initiative

KUIAS
Kyoto University
Institute for Advanced Study

# *iCeMS research*




**Missions:**

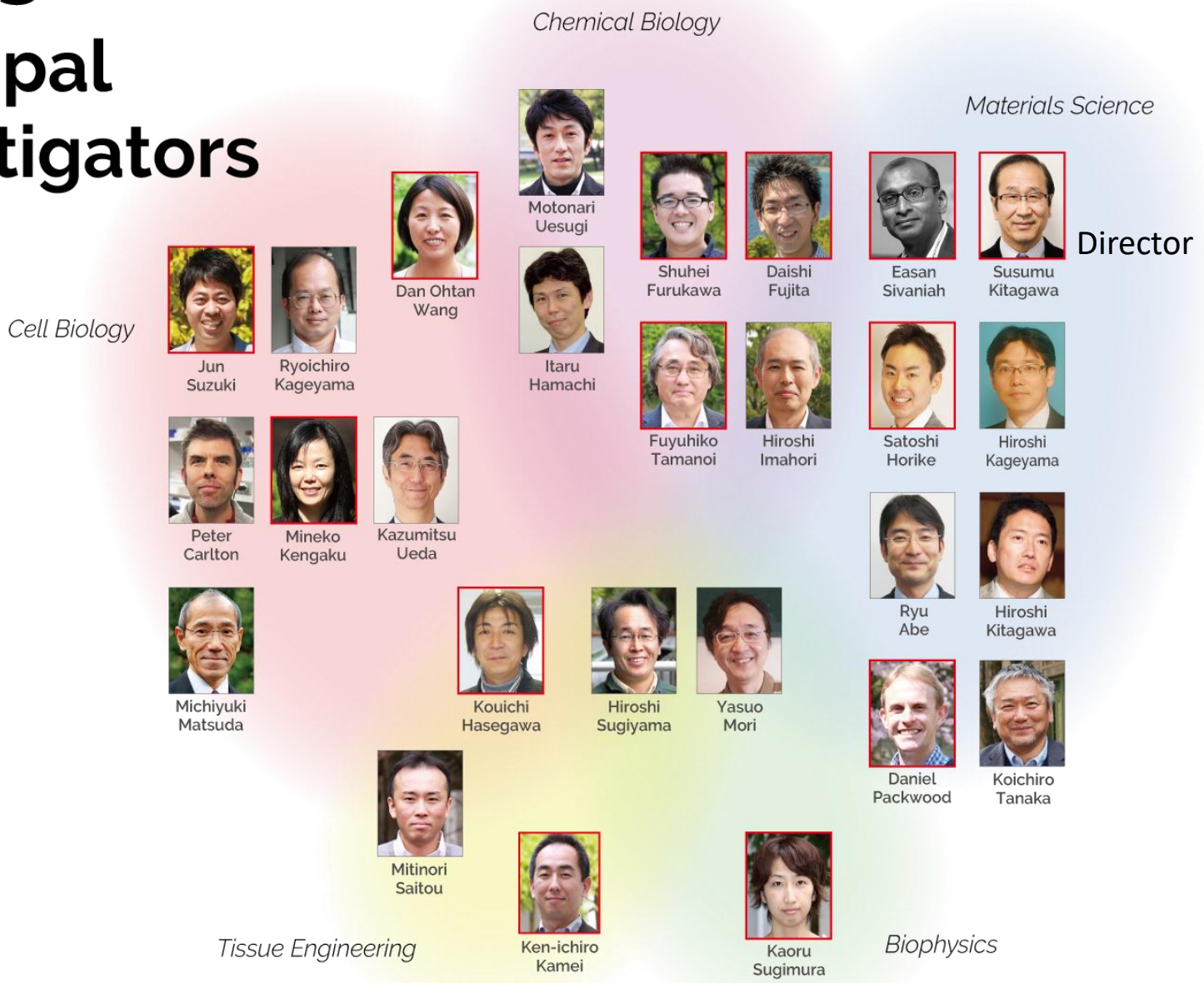
- Develop materials to understand cell functions
- Produce materials to control cell processes
- Create cell-inspired materials.





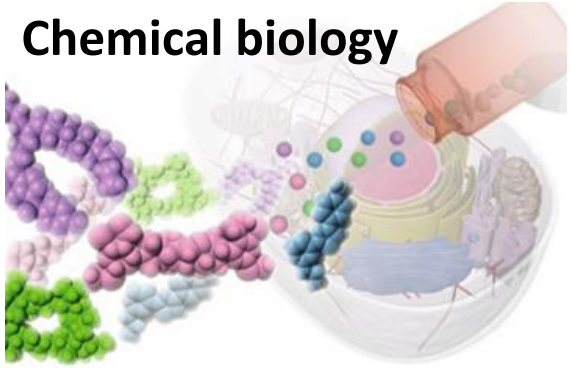

- 13 PIs, around 85 researchers in total (2017)
- Around 25 % foreign researchers, around 25 % female researchers
- English is the official language

# iCeMS Principal Investigators



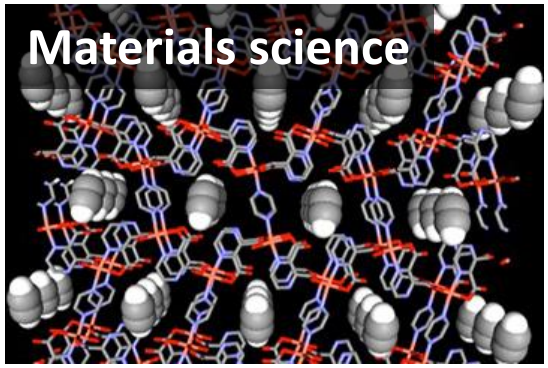
# *Some iCeMS research topics*

## Chemical biology



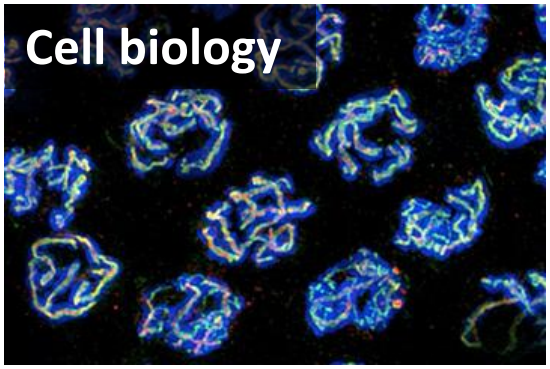
- RNA in neurons
- Synthetic molecules for cell and gene control
- Nanoparticles for cancer therapy
- Protein encapsulation

## Materials science



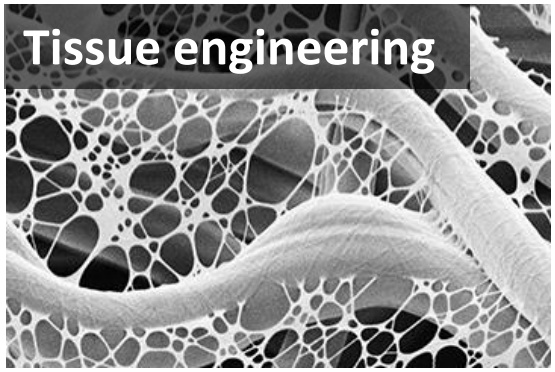
- Porous organic frameworks
- Polymer membranes
- Supramolecular chemistry
- Materials theory and mathematics

## Cell biology



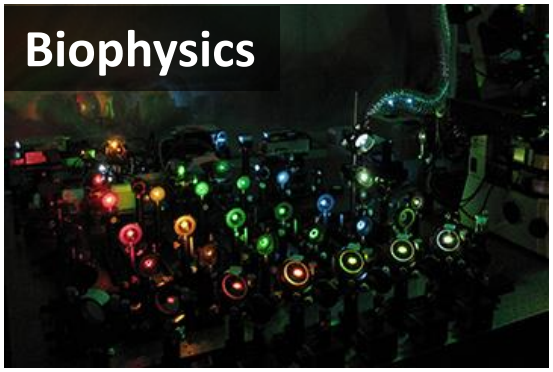
- Neuroscience
- Cell membrane proteins
- Stem cell biology
- Developmental biology

## Tissue engineering



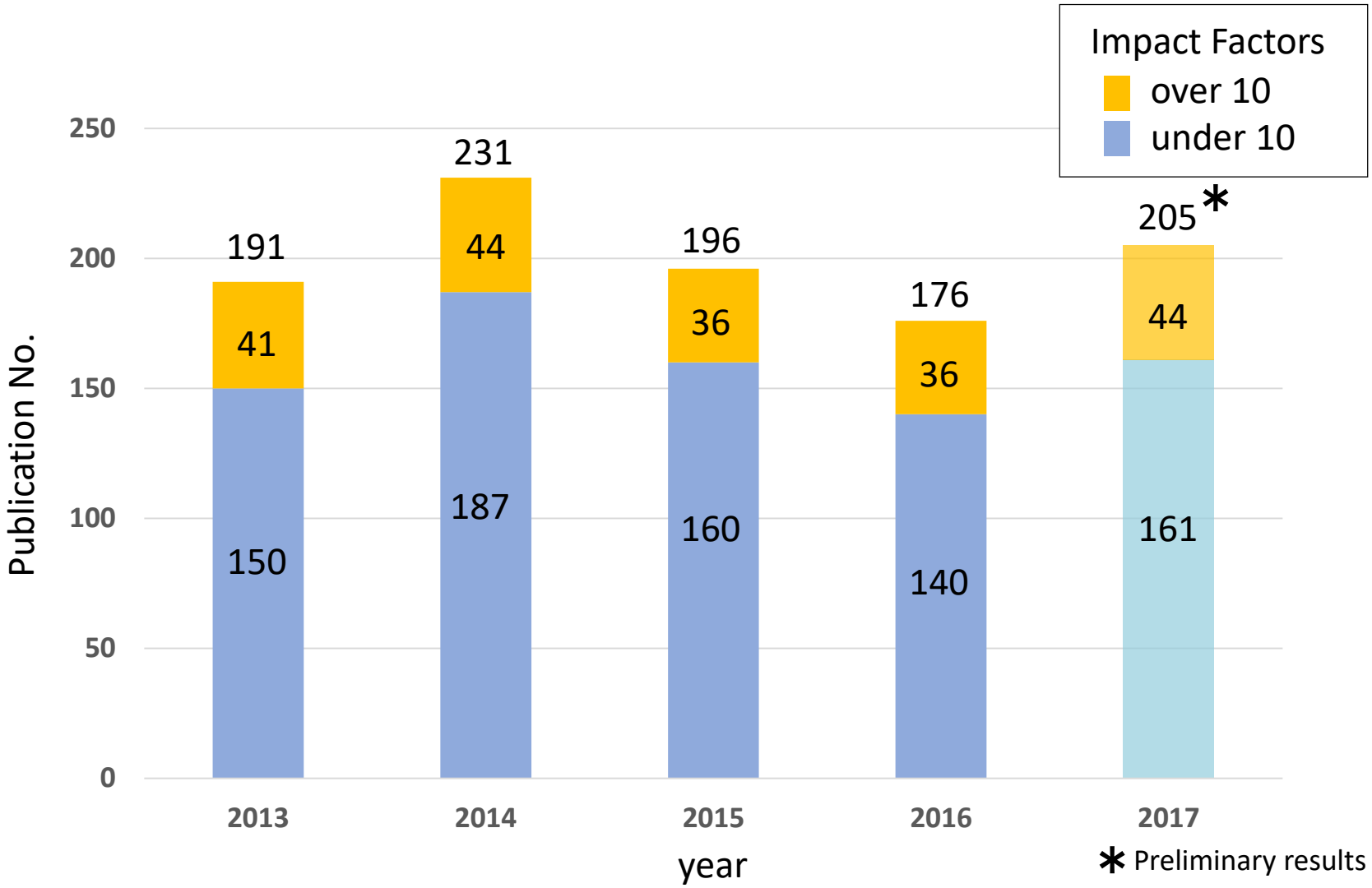
- Body-on-a-chip
- Stem cell engineering

## Biophysics

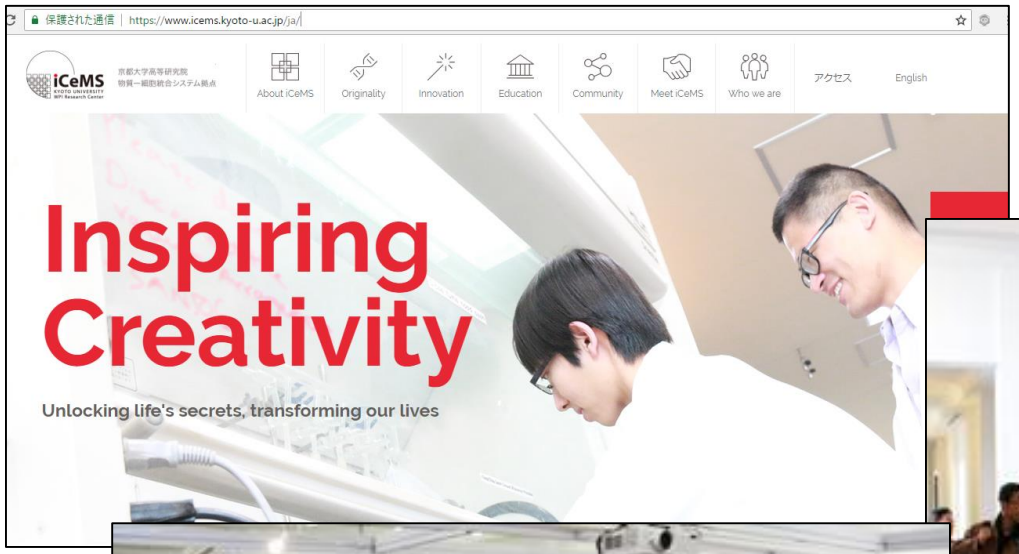


- Laser spectroscopy
- Cell and tissue mechanics

# *Paper publications (articles, letters, reviews)*



# How to interact with iCeMS?




- **Feel free to join our seminars and outreach events!**
- **Information is displayed on the iCeMS website.**

**https://www.icems.kyoto-u.ac.jp/ja/**