

## Outline of Selected Projects Comments by Program Committee

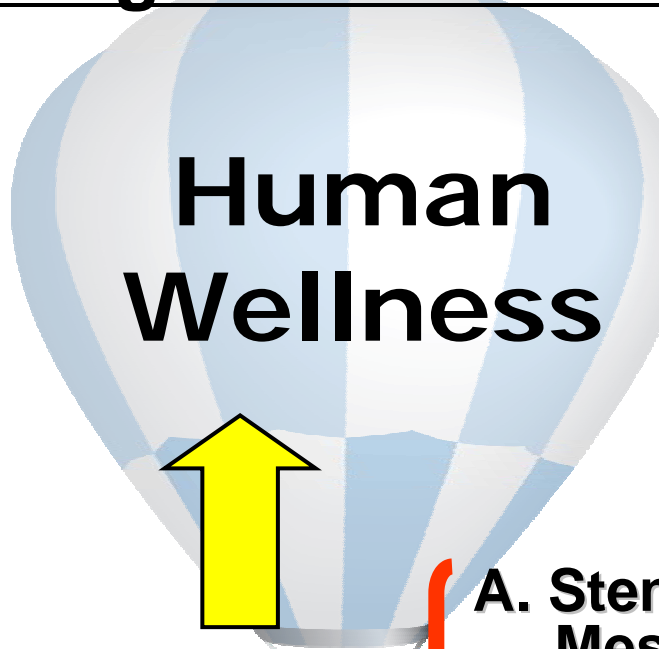
Host institution name	Kyoto University
Title of center project	Institute for Integrated Cell-Material Sciences
Chief entire-project officer	Kazuo Oike
Chief center-project officer	Norio Nakatsuji (Affiliation:Institute for Frontier Medical Sciences, Kyoto University ,Title: Director )
Prospective center director	Norio Nakatsuji (Affiliation:Institute for Frontier Medical Sciences, Kyoto University ,Title: Director )
<p>&lt;Project Summary&gt;</p> <p>Our project aims to found a world-premier research institute to create interdisciplinary fields, which will be placed within the global career-development flow of young scientists. Leading scientists will gather in Kyoto and work together for the synergistic integration of cell and material sciences, focusing on pluripotent stem (ES and iPS) cells and meso-control, based on the notion that the fundamental understanding and control of molecular complexes in the meso-scale of 5-100 nm is critical for creating the science and technology of the next generation. We will take cross-disciplinary approaches to create following new science fields and their applications. We will create 1) new chemistry and physics of meso-space, 2) cellular meso-biophysics, and 3) stem-cell control by meso-engineering. Furthermore, we will contribute to human wellness by developing A) environmentally-friendly chemistry by meso-control, B) detoxication and drug synthesis in the body, and C) regenerative medicine by controlling stem cells with smart materials.</p> <p>&lt;Remarks&gt;</p> <p>The targeted research area is very important for the future of life science and medicine. Particularly, iPS cells are a potentially very important tool in medical treatment. The Kyoto team is the leader in the field.</p> <p>Meso-scale may be a good target for expanding this project. The vision and strategy are specific and substantial.</p> <p>The prospective center director is a good representative of the center. He is very articulate and has provided a strong focus for the program.</p> <p>There is a good group of scientists gathered for this institute. Nakatsuji and Yamanaka will make good core researchers with good track records in stem cell science. A good focus on attracting young researchers is presented.</p> <p>The prospective center director is well aware of the small number of female scientists, and promised to make this one of the priorities to be solved.</p> <p>Strong support from the university and university president is committed.</p>	

# Institute for Integrated Cell-Material Sciences



**Lifting off  
Innovative  
Applications for  
Human Wellness**

**Create  
New Hot Science for  
MESO-CONTROL**



**Regenerative Medicine  
by Controlling Stem Cells  
with Smart Materials**

**Detoxication and Drug  
Synthesis in the body**

**Environmentally-Friendly  
Chemistry by Meso-Control**

- A. Stem-Cell Control  
Meso-Engineering**
- B. Cellular  
Meso-Biophysics**
- C. New Chemistry/Physics  
of Meso-Space**

**Chemistry**

**Cell Biology**

**Physics**