

# Realization of a low carbon society through game changing technologies

**R&D Project Title: Creation of next-generation lignocellulosic materials based on the molecular-structure study**

**Project Leader :** Hiroshi Nishimura

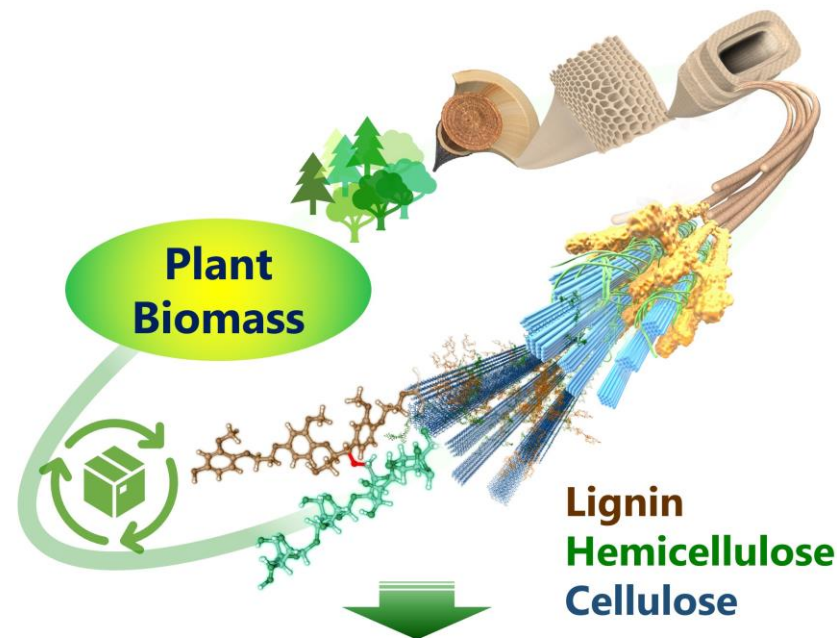
Specific Associate Professor, Research Institute for Sustainable Humanosphere (RISH), Kyoto University



## Summary :

Developing plant biomass conversion and utilization in harmony with the natural environment will be core technologies towards the circular economy and the decarbonization society.

This research project aims to overcome the lignin barrier in plant cell walls and achieve a whole conversion system, both lignin, and polysaccharides. Here, we focus on "separation" rather than decomposition of lignin. The creation of next-generation plant-based materials by green processes will lead to decarbonization on a global level.



- Design the environment-friendly conversion process
- Creation of next-generation plant-based materials  
→ Towards the circular economy and the decarbonization society