

**Tuesday, October 26, 2010, 3:00 PM**  
**Center for Renewable Carbon**  
**Conference Room**  
2506 Jacob Drive  
UT Institute of Agriculture

# Research activities on bioenergy and biomaterials in the AIST Biomass Technology Research Center

## ABSTRACT

In our research and development activities, innovative biofuel production technologies from various biomass feedstocks, focusing on woody biomass with the highest CO<sub>2</sub> fixation capability, are being developed. The following topics are focus areas for AIST, and will be described in the presentation:

- 1) Development of highly efficient ethanol production technology from lignocellulosic biomass by the combination of non-sulfuric acid pretreatment with enzymatic saccharification,
- 2) Development of technology to produce BTL-FT diesel fuel by designing a BTL (Biomass-to-Liquid) total process consisting of gasification, hot gas cleaning, FT (Fischer-Tropsch) synthesis, hydro-cracking, and isomerization,
- 3) Development of an economical and environmental assessment of the system by simulating the biomass-to-liquid fuel production process, and
- 4) Construction of a biomass utilization system in Asia and all over the world by promoting the Asian Biomass Project.

We assume that cost-benefit practical biomass conversion processes that contribute to the construction of the true sustainable society will be developed by fulfilling such research and developments

