

## Session II    Lecture 5

# **Precise control of bioconversion process for upcycling of agricultural and food byproducts**

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### Summary

From the perspectives of efficient utilization of resources, development of a process that transforms by-products or waste materials into new valuable products, that is 'upcycling', is attracting attention. Therefore, we are working on upcycling of a wide range of agricultural by-products and food manufacturing wastes and have developed several processes with microbial functions to produce enzymes and sugars, and so on. Recently, we also focus on precise management of a bioconversion process and are developing measurement/prediction and control techniques for microbial status in real time. By integrating these achievements and techniques, we aim to realize effective utilization of a wide range of regional resources.