

# Research Core for Kindai Society of Microbiology

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## Research Area & Aim

This Research Core is an open society for discussion and sharing one's idea over the whole scope of microbiology to develop **human health** and **sustainable society**, on the basis of comprehension of **Microbes in Nature and Human**. Twenty-two microbiologists from 5 departments and an institute of Kindai Univ. meet to form the Research Core covering a vast range of microbiology, including researches in **molecular- and genome-level to environment, and from basic science to applied technology**.

③ Green section

**Microbes with Plants and Soil**

Plant disease  
Bio-battery

Bio-pesticide  
Vaccine

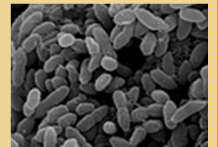
Infectious disease  
Hygiene

① Orange section

**Microbes for Health, medicine and foods**

Antibiotics  
Anticancer drug

Supplement  
Food additives



Host tropism  
Food control  
Fermentation

Biodiversity & Evolution  
Convivial & Sustainable society  
Microbe hunting  
Bioactivity & Metabolism  
Genome

Gene expression

④ Blue section

**Microbes with Water and Ocean**

Extremophile  
Biofuel

DHA·EPA

Fish infectious disease  
Deep - sea microbes

Fine chemicals  
Enzymology

② White section

**Microbes for Enzymes, fine chemical, and fermentation**

## Recent Activities

- Journals : Apoptosis. 20, 1271-80, 2015, J Antibiot (Tokyo). 70:251-258, 2017, PNAS. 104:18712-18717, 2007
- Patents : Patent 5686981, 5636179, 5220862, 5220862, 5405030 ( Utsumi ) , Patent 5435612 ( Azuma )
- Books : Stress and Environmental Control of Gene Expression and Adaptation in Bacteria ( Utsumi, Chapter 16.3, John Wiley & Sons, 2016 ) , Bacterial signal transduction: networks and drug targets (Utsumi edit, Springer, 2008)