

32th Special seminar on The IDEC Institute, 18th PHIS Seminar

1st G-TREP seminar

Date: Oct, 5th, 2023, 14:00~

Place: Hiroshima University, IDEC DT-Colab

Online: <https://00m.in/pGUA0>

Title : **Microbial genome analyses
using mass nucleotide sequencing data**

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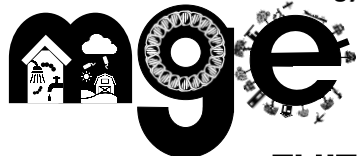
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Abstract

We have been working on microbial genome analyses utilizing mass nucleotide sequencing data. To rapidly identify disease-causing bacteria, we developed a bioinformatics pipeline, GSTK, utilizing the genome sequence database GenomeSync (<https://genomesync.org/>). With a portable DNA nanopore sequencer, MinION, we have identified bacteria, fungi, and RNA viruses from various samples. For RNA virus identification, a database of RNA-dependent RNA polymerases (RdRp) named NeoRdRp (<https://github.com/shoichisakaguchi/NeoRdRp>) was developed to identify novel RNA viruses from various RNA-seq data. In addition, we have been working on RNA viruses that cause zoonotic diseases, including Ebola viruses and SARS-CoV-2, by comparative genomic analysis. Through these studies, we have identified their various viral properties. In this seminar, I would like to introduce some of these studies.

Microbial Genomics and Ecology



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