KAITO KIKUCHI

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EDUCATION

UNIVERSITY OF CALIFORNIA, SAN DIEGO – *LA JOLLA, CA* September 2016 – Present
Ph.D – *Biological Sciences*

- **Specialization**: Quantitative Microbiology

UNIVERSITY OF TOKYO – *TOKYO, JAPAN* April 2014 – March 2016
Master of Arts – *Biophysics*

- **Adviser**: Dr. Yuichi Wakamoto
- **GPA**: 3.89/4.00

INTERNATIONAL CHRISTIAN UNIVERSITY – *TOKYO, JAPAN* April 2010 – March 2014
Bachelor of Arts/Science – *Biology Major*

- **Adviser**: Dr. Tatsuo Nunoshiba
- **Major GPA (Biology):** 3.42/4.00; **Cum. GPA:** 3.19/4.00

RESEARCH EXPERIENCE

Single Cell Optogenetics and Physiology *THE UNIVERSITY OF TOKYO, TOKYO*
Independent Study April 2014 – August 2016

- Developed novel single-cell optogenetic platform for *Escherichia coli*.
- Investigated relationship of *E. coli* cytoplasm fluidity and cellular states at single-cell level.

Protein-Protein Interaction Network Analysis *THE SYSTEMS BIOLOGY INSTITUTE, TOKYO*
Student Research Assistant April 2013 – August 2016

- Identified potential drug target proteins from the MRSA protein-protein interaction network.
- Clustering protein-protein interaction networks with focus on drug repositioning.

***Thermus thermophilus* DNA Repair and Genomic Integrity** *INTERNATIONAL CHRISTIAN U, TOKYO*
Independent Study for Senior Thesis December 2012 – March 2014

- Analysis of the thermophilic bacterium *Thermus thermophilus* genome's DNA repair system.

PUBLICATION

[Peer-Reviewed] Hase T, **Kikuchi K**, Ghosh S, Kitano H, Tanaka H (November 2014) "Identification of drug-target modules in the human protein-protein interaction network" *Artificial Life and Robotics*

AWARDS AND HONORS

JASSO SCHOLARSHIP– *JAPAN STUDENT SERVICES ORGANIZATION* September 2016 - August 2019

- Tuition + stipend support from the Japanese government. Monetary value: $115,000

RESEARCH FELLOWSHIP DC1– *JAPAN SOC. FOR THE PROMOTION OF SCI.* April 2016-August 2016

- Fellowship for top 20% PhD students in Japan. Monetary value: $100,000

OUTSTANDING GRADUATE STUDENT AWARD – *DEPT. BASIC SCI., UNIVERSITY OF TOKYO* March 2016

- Awarded for outstanding Master's thesis and excellent academic standing.

IHS LEADING GRADUATE PROGRAM FELLOW – *UNIVERSITY OF TOKYO* April 2014 – March 2016

- Fellowship for University of Tokyo graduate students. Monetary value: $28,000

TAKUYA TOKIHISA BIOSCIENCES AWARD – *INTERNATIONAL CHRISTIAN UNIVERSITY* March 2014

- Awarded for outstanding senior thesis research project.

PEACE BELL SCHOLAR – *INTERNATIONAL CHRISTIAN UNIVERSITY* April 2010 – March 2014

- 4-year merit-based scholarship from alumni association. Monetary value: $40,000

ORAL PRESENTATIONS

[Peer-reviewed] **Kikuchi K**, Hase T, Ghosh S, Kitano H (January 2015) "**A Network-Guided Approach Towards the Identification of Novel Drug Targets in MRSA**" 8th Asian Young Researchers Conference on Computational and Omics Biology (AYRCOB)

- Acceptance Rate: < 25%.

Kikuchi K, Ezaki K, Mera H, Hiratsu K, Nunoshiba T (November 2013) "**Role of DNA repair in *Thermus thermophilus* genomic integrity ~Analyzing through a Homologous Recombination Detection System**" 42nd Annual Meeting of the Japanese Environmental Mutagen Society (JEMS)

- Selected by JEMS as an oral presenter.

Kikuchi K, Ezaki K, Mera H, Hiratsu K, Nunoshiba T (June 2013) "**Evaluation of a Homologous Recombination Detection System in *Thermus thermophilus***" 26th Summer School of Mutagenesis Mechanisms

POSTER PRESENTATIONS

Kikuchi K, Wakamoto Y, and Nakaoka H (August 2015) **"Single-Cell Measurement of Cytoplasm Fluidity"** QBiC Symposium 2015

Kikuchi K, Wakamoto Y, and Nakaoka H (February 2015) **"Single-Cell Measurement of Cytoplasm Fluidity"** The Third Annual Winter Q-bio Meeting

Kikuchi K, Ezaki K, Mera H, Hiratsu K, Nunoshiba T (November 2013) "**Role of DNA repair in *Thermus thermophilus* genomic integrity ~Analyzing through a Homologous Recombination Detection System**" 42nd Annual Meeting of the Japanese Environmental Mutagen Society (JEMS)

Kikuchi K, Ezaki K, Mera H, Hiratsu K, Nunoshiba T (May 2013) "**Evaluation of a Homologous Recombination Detection System in *Thermus thermophilus***" Okinawa Integrated Biology Course, OIST

TEACHING EXPERIENCE

LAB TEACHING ASSISTANT –*INTERNATIONAL CHRISTIAN UNIVERSITY* September 2015 – March 2016

- Designed microbial genetics lab course for biology major undergraduates and supervised experiments.

LAB TEACHING ASSISTANT –*UNIVERSITY OF TOKYO* April 2015 – March 2016

- Mentored undergraduate students on experiment design and data analyses.

ATTENDED WORKSHOPS

QBIO SUMMER SCHOOL (COMP. SYN. BIO. TRACK) – *UCSD* July 2015

- Lectures and computational training sessions focusing on gene circuit design and analysis.

QBIC SPRING COURSE–*RIKEN QUANTITATIVE BIOLOGY CENTER* March 2014

- Hands-on training at the Chikara Furusawa lab on *E. coli* adaptive evolution. Acquired experiment skills (microarray) and computational skills (transcriptome analysis).

OKINAWA INTEGRATED BIOLOGY COURSE–*OKINAWA INST. OF SCIENCE & TECHNOLOGY* May 2013

- Two-week long workshop focusing on quantitative genomics.

SKILLS AND INTERESTS

Research Interests

- Microbial Community Dynamics, Bacterial Physiology, Phenotypic Variability.

Research Skills

- Molecular Cloning Techniques (PCR, DNA Assembly, Transformation, etc.), Fluorescence Microscopy, Microfluidics, Network Analysis, Image/Data Analysis (ImageJ, Python, R)

Languages

- English (TOEFL iBT 116/120, Oct 2015), Japanese