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## Education

2018 – 2021 **Hokkaido University, Japan**

Doctor's Degree of Biomedical Science and Engineering

**Thesis:** Study on Quick Prediction of Dose Volume Statistics in Proton Beam Therapy using Deep Learning

2014 – 2017 **King Mongkut's University of Technology Thonburi, Thailand**

Master's Degree of Biological Engineering

**Thesis:** Effect of Light Irradiation on Growth Capability of Human Hair Follicle  
Dermal Papilla Cells

2010 – 2014 **Srinakharinwirot University, Thailand**

Bachelor's Degree of Biomedical Engineering

**Thesis:** Wheel Chair Control System Using EOG

## Publications and Presentations

**1. "Prediction of liver  $D_{\text{mean}}$  for proton beam therapy using deep learning and contour-based data augmentation"**

**Sira Jampa-ngern, Keiji Kobashi, Shinichi Shimizu, Seishin Takao, Keiji Nakazato, Hiroki Shirato**

Journal of Radiation Research, 62(6), 1120-1129 (2021)

**2. "Study of EUD estimation using machine learning from small data as pre-screening tool prior to MBA for PBT patient selection"**

**Sira Jampa-ngern, Keiji Kobashi, Shinichi Shimizu**

Oral presentation in The 121st Scientific Meeting of the Japan Society of Medical Physics (JSMP),  
Yokohama, Japan (April 2021)

### **3. “Feasibility Study on DVH Estimation by Machine Learning from Small Data towards Simplified Model-based Approach for Selective Use of Proton Therapy”**

**Sira Jampa-ngern**, Keiji Kobashi, Shinichi Shimizu

Oral presentation in 118th Annual Meeting of the Japan Society of Medical Physics (JSMP), Fukui, Japan (September 2019)

### **4. “Effect of Laser Diode Light Irradiation on Growth Capability of Human Hair Follicle Dermal Papilla Cells”**

**Sira Jampa-ngern**, Kwanchanok Viravaidya-Pasuwat, Saroj Suvanasuthi, Anak Khantachawana

Oral presentation and Contributed paper in 39<sup>th</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society 2017 (EMBC’17), Jeju Island, Korean, pp. 3592-3595.

### **5. “Laser Treatment for Hair Loss”**

Anak Khantachawana, **Sira Jampa-ngern**, Pirawan Chantachotikul

Poster presentation in Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition: IPITEx 2017, Bangkok, Thailand (February 2017)

### **6. “The Designed of Alopecia Treated Device by Using Light Stimulation”** (Silver Medal and Special Honor of Invention from iCAN-Toronto, Canada)

Anak Khantachawana, **Sira Jampa-ngern**, Pirawan Chantachotikul

Poster presentation of research in 10<sup>th</sup> International Warsaw Invention Show, IWIS 2016, Warsaw, Poland (October 2016)

### **7. “Light Emitting Diodes (LEDs) Light for Alzheimer’s Therapy”**

Kunthika Mokdara, **Sira Jampa-ngern**, Teerawat Uanlee

Presentation of innovation in Student Innovation Challenge 2016, Thailand (May 2016)

### **8. “Wheel Chair Control System Using EOG”**

**Sira Jampa-ngern**, Peerapat Buaaumpai, Pawit Khajornrithdecha, Direk Sueseenak

Poster presentation of research in Patient Safety Conference 2014, Faculty of medicine, Srinakharinwirot University, Thailand (2014)

## **Honors and Awards**

### **1. “The Designed of Alopecia Treated Device by Using Light Stimulation”**

Anak Khantachawana, **Sira Jampa-ngern**, Pirawan Chantachotikul

- **Silver Medal**

- **Special Honor** of Invention from International Invention Innovation Competition in Canada (iCAN-Toronto, Canada)

10th International Warsaw Invention Show, IWIS 2016, Warsaw, Poland (October 2016)

## Work Experience

1. Lecturer at “**Department of Biomedical Engineering**”, Srinakharinwirot University, Thailand (2022-Present)
2. Researcher at “**Biological Engineering Program**”, King Mongkut’s University of Technology Thonburi, Bangkok, Thailand (2017)
3. Teacher Assistance in “**Biological Science in Modern Technology (BIE100)**”, King Mongkut’s University of Technology Thonburi, Bangkok, Thailand (2015 – 2017)
4. Exchange Student at “**International Center for Biotechnology (ICBiotech)**”, Osaka University, Osaka, Japan (September 2015 - November 2015)
5. Internship at “**Medical Division (X-ray and Ultrasound)**”, Berli Jucker Public Company Limited, Bangkok, Thailand (March 2013 – May 2013)

Update: 03/05/2022