



“Training Program for Research in
Biomedicine and New Agriculture”
Partner School Program,
Ministry of Education

Intelligent High-Valuable Medical Devices: A

Kaohsiung Medical University

Principal investigator: **Prof. Guo, Lan-Yuen**

(Program Director of Ph.D. Program in Biomedical Engineering / Director of Department of Sports Medicine)

Co-principal investigator: **Prof. Cheng, Tain-Lu**

(Associate Dean of College of Medicine / Director of Institute of Medicine)

Intelligent High-Valuable Medical Devices: A

- **Central school**

- **Department of Biomedical Engineering, National Cheng Kung University (NCKU)**

- **Partner School**

- Department of Medical Sciences, National Tsing Hua University
- Institute of Biomedical Engineering, National Chung Hsing University
- Department of Biomedical Sciences and Engineering, National Central University
- Department of Mechanical Engineering, Southern Taiwan University of Science and Technology
- **Ph.D. Program in Biomedical Engineering / Department of Sports Medicine, Kaohsiung Medical University (KMU)**

Courses

Lectures

- ◆ Biomedical and Intellectual Property Practice
- ◆ Innovation and entrepreneurship (I&E)
- ◆ Clinical Engineering

New!

- Innovative Design of Medical Devices
- Cooperate With the Biodesign of NCKU

Stage 1

- Courses Planning and Design
- Introduce I&E
- Encouraging I&E
- Field Construction

Stage 2

- Field import application surface
- Organizing thematic presentations
- Innovative teaching mechanism

Stage 3

- Regional Representative Industry Visiting Internship

Stage 4

- IP patent portfolio and business plan
- Establish a company stationed in the Innovation Incubation Center of University

Practical courses

- ◆ Practical & Internship Field : Ta-Tung Welfare School
- ◆ Smart Living: Innovation Creative Curriculum Module

- ◆ Innovatively Cultivate Talent Platform

New!

- Clinical Engineering Practice
- 3D Printing Application

Innovative Design of Medical Devices

- Cooperated with **BioDesign** of NCKU (National Cheng-Kung University)
- **10-days Duration course (in summer vacation)**, program will invite the experts of the field of medical devices for lectures on the first 7 days, **and will run in *Boot Camp on the last 3 days.**
- **Lectures:** 2018/8/3-2018/8/9. ***Boot Camp:** 2018/8/10-2018/8/12.
- Lectures are free to register, but the ***Boot camp** requires to **be participated in NCKU.**
- **Registration and Contact information:**
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C1	Course Introduction and Regrouping
C2	Establishing and Exploring the Concept about Medical Device
C3	Experience Sharing: from the Clinically Satisfied Needs to the Product Development
C4	Clinical Filtering for the Unsatisfied Needs
C5	Relationship between Clinical Needs and Basic Disease Symptoms
C6	Knowing and Developing about Research and Development Strategies
C7	Medical Device Regulations
C8	Practical Application of Patent Search
C9	Exploring the Strategy of Health Insurance Payment
C10	Midterm report (Unmet Need Selection)
C11	Competitive products analysis
C12	Business Model Topology
C13	Clinical Trial Planning
C14	In Process Quality Design and Control and the Layout
C15&16	Prototype Design
C17&18	Final Presentation Pitch