

PIMCHANOK (MIE) PIMTON

Drexel University ♦ School of Biomedical Engineering, Science and Health System
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EDUCATION

Drexel University (School of Biomedical Engineering, Science and Health System) **Philadelphia, PA**
PhD student, Cell and Tissue Engineering **Sept. 2007 – present**

- Recipient of the Royal Thai Government Scholarship.

UNIV. OF PENNSYLVANIA (UPenn) (School of Engineering and Applied Sciences) **Philadelphia, PA**
Master of Biotechnology, Engineering Track **Sep. 2005 – Aug 2007**

- Recipient of the Royal Thai Government Scholarship.

MAHIDOL UNIVERSITY (MU) (Department of Pharmacology, Faculty of Science) **Bangkok, Thailand**
MS/PhD Pharmacology **Jun. 2003 – May 2005**

- Withdrew from the program to accept a prestigious government scholarship to pursue advanced studies in the United States.

MAHIDOL UNIVERSITY INTERNATIONAL COLLEGE (MUIC), THAILAND **Bangkok, Thailand**
Bachelor of Science **Sep. 1999 – Jan. 2003**

Major - Biological Science with emphasis in Bio-Medical Sciences

Research Interest

- Induced pluripotent stem cells
- Stem cell differentiation
- Vascular tissue engineering

RESEARCH EXPERIENCE

“The Effect of Gel Stiffness on the Growth of Human Mesenchymal Stem Cells (hMSCs)” **Philadelphia, PA**
Institute for Medicine and Engineering, UPenn **Jan. 2007 – Aug. 2007**
Supervisor: Prof. Paul Janmey, and Dr. Makoto Funaki, M.D., Ph.D.

- This project aimed to examine the ability of gelatin-containing hyaluronic acid hydrogels as a substrate to maintain stem cell quiescence. hMSCs were cultured on glass coverslips and hydrogels made of hyaluronic acid (HA) and polyacrylamide (PA). The stiffness of the hydrogel was varied and analyzed by TA Instruments RFSII Rheometer. The effect of different substrate stiffness on the growth of hMSCs was investigated. Soft HA gels, similar to soft PA gels laminated with a mixture of type 1 collagen and fibronectin, attenuated the proliferation of hMSCs despite the presence of serum in the medium. However, hMSCs spread out on HA gels, while they rounded up on PA gels with a matching rigidity. These observations suggest that, in spite of cell spreading presumably due to a distinct regulation originating from the same mechanical cue, soft HA gels may be useful to introduce quiescence into hMSCs.

“Toxicity and Bioaccumulation of Cadmium in Blue-Green Algae (*Oscillatoria Amoena*)” **Bangkok, Thailand**
Science Faculty, MU **Dec. 2001 – Sep. 2002**
Supervisor: Assoc. Prof. Prayad Pokethitiyook, PhD

- The research project was implemented as partial requirement for the BS program. The aim of the project was to investigate the effects of Cadmium on blue-green algae. The algae were cultured either in cadmium-free or cadmium-containing media and their growth in either media, was determined by extraction with acetone. The *chlorophyll A* content (a factor which correlates with the growth of algae) was determined using a spectrophotometer. For samples grown in the cadmium-containing medium, the cadmium bioaccumulation was determined by Atomic Absorption Spectroscopy and compared with the control. Results showed that there was 40% inhibition of the algae's growth and this species was capable of harvesting cadmium from contaminated media. This premise can be applied potentially, as biological tool to remedy environmental pollution, caused by cadmium contamination of water bodies.

EXTRA-CURRICULAR ACTIVITIES**Tsunami Volunteer****Dec.2004 – Jan. 2005**

- Simultaneous Translator for medical-aid providing professionals.
- Technical Assistant with the Forensic team involved in the identification of the deceased victims.

Youth Health Development Project in Rural Area**Dec.2001**

- This project was aimed at promoting the health of the youth in rural areas, with focus in the Loey Province, Thailand.
- Project Coordinator involved in the organization and implementation.

MUIC-Royal Thai Govt. Police Anti-Drug Campaign**Jun.2001 – Jul.2001**

- The aim of the project was to educate the citizens on drug-abuse and provide counseling.
- Team Leader representing the student union. Was involved in organizing activities that educated school students about drug-abuse. The activities included poster competitions and quizzes to highlight the campaign.

MEMERSHIP AFFILIATIONS**Member of Thailand Karate-Do Federation****1999 – Present**

- 4 Kyu (Blue with Brown stripe level).
- All Thailand Karate-Do Gojukai Championship 2000, 2001 and 2003.
 - Silver Medalist ('00, '03) Bronze Medalist ('01).
- All Thailand Karate-Do Championship 2001
 - Bronze Medalist ('01).

Member of Mahidol University Karate-Do Club**1999 – 2003**

- Vice Presitdent (2000-2001).
- Coordinator of Karate-Do MU athlete training camp (Jan. 2002).
- All Thailand University Karate-Do Championship 2001 and 2002
 - Represented MU.
 - Bronze Medalist ('01). Silver Medalist ('02).

ADDITIONAL INFORMATION

- **Interests** – Reading, traveling, hiking, theatre, Thai traditional massage, martial arts and self defense, Badminton.
- **Languages** – Thai, English, Japanese (learning).