Faculty of Science

Department of Microbiology

Curriculum Title: Doctor of Philosophy Program in Microbiology (International Program)

Curriculum Description

The Ph.D. program in Microbiology is designed to prepare internationally qualified researchers and academics with expertise and advanced level of specialized knowledge in the area of Microbiology, able to initiate, analyze, synthesize, investigate, generate innovation or novel body of knowledge in fields of microbiology and apply research to support community needs, both locally and internationally, demonstrate appropriate moral behaviors and research ethics, and able to work with others, both locally and internationally.

Type of Program

- [ ] Regular Program (Monday-Friday)
- [x] Regular Program (Monday-Friday) and International Program
- [ ] Special Program (Saturday-Sunday)

Dissertation Themes

1. Food safety
2. Bacterial diversity
3. Antibiotic resistant in Enterobacteriaceae
4. Application of bacteria to food, agriculture and environment
5. Bacterial diseases affecting aquaculture and biological control
6. The potential use of halophilic and lactic acid bacteria in food processing
7. Development of *Vibrio vulnificus* phages as biocontrol and pathogenesis of *Vibrio vulnificus*

Prospective students

1. Plan 1
   Plan 1.1
   1. Applicants must hold a Master’s degree or be studying in the final semester of Master’s level in Microbiology or in related field with a GPA of at least 3.25 and
   2. Have full paper published in the conference proceedings and
   3. Experience in conducting research or project in the area of Microbiology or in related field and
   4. Approved by graduate program administrative committee.
   Plan 1.2
   1. Applicants must hold a Bachelor’s degree with first class honor or be studying in the final semester of undergraduate level in Microbiology or in related field with a GPA of at least 3.50 and
   2. Have experience in conducting research or project in the area of Microbiology or in related field and
   3. Approved by graduate program administrative committee.
2. Plan 2
   Plan 2.1
   1. Applicants must hold a Master’s degree or be studying in the final semester of Master’s level in Microbiology or in related field and
   2. Have at least 1 year of experience in conducting research or project in the area of Microbiology or in related field and
   3. Approved by graduate program administrative committee.
   Plan 2.2
   1. Applicants must hold a Bachelor’s degree or be studying in the final semester of undergraduate level in Microbiology or in related field with a GPA of at least 3.00 and
   2. Have at least 1 year of experience in conducting research or project in the area of Microbiology or in related field and
   3. Have at least 1 publication in academic journals
4. Approved by graduate program administrative committee.

3. Applicants whose native language is not English MUST achieve the minimum score of one of the following English proficiency tests:
   - TOEFL paper-based $\geq 500$
   - TOEFL computer-based $\geq 173$
   - TOEFL internet-based $\geq 61$
   - IELTS $\geq 5.0$
   - CU-TEP or PSU-TEP $\geq 60$
   The English test score certificate must not be older than 2 years at the time of application.

4. In cases where the English qualification does not meet the requirement above, consideration by the graduate program administrative committee is required.

5. Other qualifications should conform to the requirements indicated in the Academic Regulations of Graduate Studies, Prince of Songkla University, B.E. 2556.

Prospective advisors

1. Assistant Prof. Dr. Pimonsri Mittraparp-arthorn
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2. Assistant Prof. Dr. Preeyanuch Bovornreungroj
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3. Dr. Ampaitip Sukhoom
   E-mail: ampaithip.s@psu.ac.th
4. Dr. Rattanaruji Pomwised
   E-mail: rattanaruji.p@psu.ac.th

Contact Information
Assistant Prof. Dr. Pimonsri Mittraparp-arthorn, Ph.D.
Program coordinator
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Name: Dr. Pimonsri Mittraparp-arthorn
Academic Position: Assistant Prof.
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Telephone: +66-74-288314 Fax:+66-74-288311
Email: pimonsri.m@psu.ac.th

Education:
2005 B.Sc. (Microbiology) Prince of Songkla University, Thailand
2010 Ph.D. (Biomedical Sciences) Prince of Songkla University, Thailand

Areas of interest:
Food Safety, bacterial diseases affecting aquaculture and biological control

Award Received:
2010 The best Ph.D.’s Thesis Award
2014 Advisor of the M.Sc. student who received the best M.Sc.’s Thesis Award
2017 Advisor of the M.Sc. student who received the Songklanagarind Innovation Award
2018 Medalle D’Or Silver Medal, 46th International Exhibition of Inventions of Geneva

Publications:


The main of our research are related to the potential use of microorganisms in food processing:
1. Use of halophilic bacteria and their enzymes for acceleration and enhance flavor and aroma in fermented fish sauce. 2. Use of lactic acid bacteria for starter culture in fermented rice noodle and to produce biopreservative for reduced *Listeria monocytogenes* in chilled seafood products.

**Selected Publications**


CURRICULUM VITAE

Name: Dr. Ampaitip Sukhoom
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Institute: Department of Microbiology, Faculty of Science, Prince of Songkla University
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Telephone: +66-74-288329 Fax:+66-74-288311
Email: ampaithip.s@psu.ac.th

Education:
1987 B.Sc. (Biology) Prince of Songkla University, Thailand
1991 M.Sc. (Industrial Microbiology) Chulalongkorn University, Thailand
1999 Ph.D. (Agriculture & Biological Sciences) University of Newcastle upon Tyne, UK
2004 Certificate in Biotechnology in Agriculture: Plant & Microorganisms, The Hebrew University of Jerusalem, Israel
2008 Certificate in Marine Biotechnology, Institute of Oceanology, Qingdao, China

Areas of interest:
Environmental microbiology

Publications:


CURRICULUM VITAE

Name: Dr. Ampaitip Sukhoom
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Education:
1987 B.Sc. (Biology) Prince of Songkla University, Thailand
1991 M.Sc. (Industrial Microbiology) Chulalongkorn University, Thailand
1999 Ph.D. (Agriculture & Biological Sciences) University of Newcastle upon Tyne, UK
2004 Certificate in Biotechnology in Agriculture: Plant & Microorganisms, The Hebrew University of Jerusalem, Israel
2008 Certificate in Marine Biotechnology, Institute of Oceanology, Qingdao, China

Areas of interest:
Environmental microbiology

Publications:


Miss Rattanaruji Pomwised

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Education:

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Special Interest: Bacteriology (pathogenesis), Bacteriophages

Research:

1. Molecular characteristic of *Vibrio vulnificus* isolated from sea food and patients
2. Use of Bacteriophage against *Vibrio vulnificus* in contaminated frozen shrimps
3. Antibiotic resistance in *Enterobacteriaceae* isolated from clinical specimens

Publication:

