Doctor of Philosophy Program in Molecular Biotechnology and Bioinformatics

(International Program)

Our doctoral programme aims to produce graduates who can perform effective research that meets international standards and, at the same time, satisfies the country's needs. We prepare our students to become knowledgeable researchers with competency in carrying out comprehensive research in molecular biology and bioinformatics. Graduates keep themselves up to date with recent technologies and can integrate their knowledge into other fields of science. Graduates can plan, analyse, produce their work, and solve complex problems effectively while showing high professional ethics and moral standards.

We are open to a wide range of research. Our current particular focuses include the following areas.

1) Animal Genome
   - Functional genomics and integrated approaches in animals
   - Biotechnology for studying immune and reproductive systems in aquatic animals
   - Production of recombinant protein for agriculture, medical field and biosensor
   - Animal tissue culture and genetic engineering
   - Aquatic animals transplantation

2) Plant Genome
   - Plant tissue culture and genetic engineering
   - Molecular marker development for high-yield agricultural crops such as palm oil

3) Microbial Biotechnology
   - Application of bacterial cellulose
   - Bioethanol production with bacterial cellulose

4) Fermentation Biotechnology
   - Use of fermentation by microorganisms such as bacteria and fungi to create useful products for human

5) Medicinal Biotechnology
   - Molecular biology for infectious diseases
   - Genetic susceptibility of complex diseases
   - Expression of genes and proteins in cancer cells

6) Bioinformatics
   - Protein structure and variant analysis
   - Genome and transcriptome data analysis
   - Bioinformatics for biomedical science

We offer scholarships for high performing students.

1. Number of students limited	6
2. Plan of study	Plan 1.1
3. Instruction Administration	Monday - Friday
4. Format of Instruction	Online / onsite
5. Tuition fee	56,000 Baht per semester

6. Course Structure

Course Structure	Plan of study
	Plan 1.1
Thesis	48
Total	48

7. Qualification of applicants	4.1 Applicants must hold a Bachelor's degree with a GPA of at least 3.25 in Science or any related field or hold a Master's degree in Science or any related field. 4.2 Applicants must be able to provide recent an evidence of their English language skills. Accepted tests and minimum scores are shown below. CU-TEP 50 overall PSU-TEP 50 overall TOEFL 450 paper-based (or equivalent) IELTS band 4.5
8. Application documents required by program	- A copy of Transcript - A copy of an English proficiency certificate
9. Contact info	Assoc.Prof.Dr. Warapond Wanna, Tel: 66-74-288789, E-mail: w.wanna@yahoo.com , w.warapond@gmail.com https://www.sci.psu.ac.th/en/program-in-physical-science-en/

Test schedule

The program will contact the applicants directly to provide the details.