## MBMG 521 Molecular Genetics and Genetic Engineering Seminar I

Semester 1, academic year 2020 (1 credit)

### **Expected learning outcome:**

- 1. Students develop necessary skills in reading, interpreting, and giving a scientific presentation of original research articles.
- 2. Students become willing to learn new current researches in molecular genetics, genetic engineering, and related disciplines.
- 3. Students are able to participate in scientific discussions and summarize the content of a seminar presentation.

#### Format:

- 1. Students who register for seminar I (MBMG 521) will present at least 2 current research articles (within 5 years) that have an impact factor (>3.0) and are related to their thesis topic.
- 2. Students will give a presentation for 20 minutes, followed by answering questions from the floor for approximately 15 minutes.
- 3. Students should discuss the topic of the presentation with his/her advisor and send the title of the presentation together with the information of two selected publications to the course coordinator, at least 2 weeks before the presentation date.
- 4. Students are required to submit **the abstract** (200-250 words) to the course coordinator <u>1</u> week before the presentation date.

#### **Evaluation:**

- 1. Presentation (75%):
  - 1.1 Abstract (5%)
  - 1.2 Seminar content and organization of the talk (30%)
  - 1.3 Presentation techniques (20%): slide quality, ability to communicate in English, etc.
  - 1.4 Answering questions (20%)
- 2. Performance throughout the course (25%)
  - 2.1 Attending the class (10%)
  - **2.2** Asking questions (5 questions, 15%)

Course coordinator: Dr. Sarin Chimnaronk

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<b>Fitle(Font Time New Roman, size 16, bold)</b>				
Date:	Time:(Font Times, size 16 unbold)			
Speaker:	(Font Times, size 16 unbold)			
	Abstract (Font Times, size 14, bold)			
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Text-----Font Times, size 12 unbold, 1.5 line spacing
Only 1 page (not more than 250 words)

Content in abstract should include background, purpose of the study, experimental design, results and conclusion and/or prospective.

References: 2-3 major references

Due date: A week before the presentation date.

# Seminar I schedule Semester 1/2020 Room A107

Date	Time	Topic	Presenter			
MBMG 521						
November 24 <sup>th</sup>	10:00-10:50	Function- and sequence-based metagenomic screenings for novel phytases	Patcharee Phetthongyok			
	10:50-11:40	Overexpression of genes involved in cellulase production in <i>Trichoderma reesei</i> for enhance hydrolysis of lignocellulosic biomass	Ngoentra Samnaknit			
December 1 <sup>st</sup>	10:00-10:50	Genetic mapping of new alleles and expression profiling of candidate genes involving in resistance to <i>Phytophthora sojae</i> in soybean	Siraprapha Duangchaingoen			
	10:50-11:40	CRISPR Cas9-mediated gene disrupt TALE-Binding element of susceptibility to bacterial blight in plant	Kotchaporn Thongmak			
December 8 <sup>th</sup>	10:00-10:50	An application of nanotechnology coupled with cell targeting peptides as a toxin or drug delivery system	Tipaporn kumkoon			
	10:50-11:40	Interaction between the C-terminal fragment of Vip3Aa and Cry9Aa toxins enhances their synergistic toxicity against Asiatic rice borer	Tharathip Hemthanon			
	9:30-10:20	Machine learning applications in phenotypic drug discovery	Thanadon Samernate			
December 15 <sup>th</sup>	10:20-11:10	Elucidation of the humoral immune response to dengue infection using single-cell RNA sequencing	Krittanai Trisakulwattana			
	11:10-12:00	Mutations of asparagine synthetase affect head/brain size in humans and frequency of enzyme assembly in budding yeast	Thunyarat Surasiang			
December 22 <sup>th</sup>	9:30-10:20	Probiotics as vectors for the <i>in situ</i> delivery of recombinant proteins for prophylactic and therapeutic purposes	Siriphat Youngkaew			
	10:20-11:10	Inhibition of pentose phosphate pathway suppresses cancer cell proliferation and metastasis	Chanyanat Sukhuma			

MBMG 621					
December 22 <sup>th</sup>	11:10-12:10	The interplay of glycolytic enzyme; GADPH with Dengue and Hepatitis C virus	Suthatta Sornprasert		
December 24 <sup>th</sup>	10:00-11:00	-	Pisit Ubonsri		
	11:00-12:00		Sathapat Duangsopha		