

SEMINAR FINAL & PROPOSAL

BBS 5903 / BBS 6904

SPS 5903 / SPS 6903

Semester 1, 2016/2017

Faculty of Biotechnology & Biomolecular Sciences
Universiti Putra Malaysia

□ Abstract

- Will be examined by course coordinator and the appointed examiners.

□ Oral presentation

- BBS6904 and BBS5903 :
20 mins presentation 10 mins Q&A
- SPS6903 and SPS5903 :
15 mins presentation 5 mins Q&A
- Presentation will be evaluated by the appointed examiners

Assessment criteria

CRITERIA*	MARK DISTRIBUTION (%)*
Abstract	10
Content	40
Organization <i>(i.e., flow and time-keeping)</i>	10
Understanding & Relevant Knowledge <i>(i.e., addressing the questions)</i>	10
Verbal/Non-verbal Skills & Audience Engagement	10
Creativity, Design & Visual Aids	10
Ability to answer question	10
TOTAL	100

*subject to changes

Abstract

Abstract Submission

□ How long is an abstract? **150–300 words**

□ **Abstract Submission :**

1. Soft copy

Email to :

ar_muhamin@upm.edu.my (Dr. Ahmad Muhaimin Roslan)

cc: fadzie@upm.edu.my (Dr. Fadzie Wong Faizal Wong)

Submit together with a **SUBMISSION FORM**

Name

Course code

Keywords

Matric no.

Program (PhD or MSc)

Mobile no.

Field of study

Main Supervisor

Project title

2. One Hard copy (with your main **supervisor's signature and stamp**)

Submit to **Mrs. Siti Norhasiken Abdul Rahman**

(secretary of HOD, Department Bioprocess Technology)

Deadline: 24 Nov 2016 (Thursday)

Abstract format

Times New Roman,

SCANNING THE EFFECTS OF ETHYL METHANESULFONATE ON THE WHOLE GENOME OF *LOTUS JAPONICUS* USING SECOND-GENERATION SEQUENCING ANALYSIS

Bold your name

Nur Fatimah Mohd-Yusoff^{1,2}, Pradeep Ruperao^{3,4}, Nurain Emylia Tomoyoshi¹, David Edwards^{3,5}, Peter M. Gresshoff¹, Bandana Biswas¹ and Jacqueline Batley^{1,5}

Bold & capitalize your title

Superscript before affiliation, singled-spaced, justified

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²Department of Cell and Molecular Biology, Faculty of Biotechnology and Biomolecular Sciences, Universiti Putra Malaysia, 43400, Serdang, Selangor, Malaysia,
³Australian Centre for Plant Functional Genomics, School of Agriculture and Food Science, The University of Queensland, St Lucia, Brisbane QLD 4072, Australia,
⁴Centre of Excellence in Genomics (CEG), International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Patancheru 502324, Telangana, India, and
⁵School of Plant Biology, University of Western Australia, Crawley, WA 6009, Australia.

Superscript after names (for affiliation)

Genetic structure can be altered by chemical mutagenesis, which is a common method applied in molecular biology and genetics. Second-generation sequencing provides a platform to reveal base alterations occurring in the whole genome due to mutagenesis. A model legume, *Lotus japonicus* ecotype Miyakojima, was chemically mutated with alkylating ethyl methanesulfonate (EMS) for the scanning of DNA lesions throughout the genome. Using second-generation sequencing, two individually mutated third-generation progeny (M3, named AM and AS) were sequenced and analyzed to identify single nucleotide polymorphisms and reveal the effects of EMS on nucleotide sequences in these mutant genomes. Single-nucleotide polymorphisms were found in every 208 kb (AS) and 202 kb (AM) with a bias mutation of G/C-to-A/T changes at low percentage. Most mutations were intergenic. The mutation spectrum of the genomes was comparable in their individual chromosomes. However, each mutated genome has unique alterations, which are useful to identify causal mutations for their phenotypic changes. The data obtained demonstrate that whole genomic sequencing is applicable as a highthroughput tool to investigate genomic changes due to mutagenesis. The identification of these single-point mutations will facilitate the identification of phenotypically causative mutations in EMS-mutated germplasm.

Singled-spaced, justified

Capitalize "KEYWORDS"

KEYWORDS: abscisic acid, *Lotus japonicus*, mutagenesis, second generation sequencing, single nucleotide polymorphism.

Justified, 3-5 keywords

Writing an Abstract

- ▶ The abstract gives a quick overview.
 - ▶ It tells the reader what to expect in your work
 - ▶ Check the word length and further reduce your words
 - ▶ Edit for flow and expression.
- 

Components of an abstract

- ▶ Background/Motivation
 - ▶ Statement of Problem
 - ▶ Methods or Approach
 - ▶ Results or Product
 - ▶ Conclusions or Implications
- 

Example of Abstracts with the Key Parts Identified.

Abstract	Key Parts
<p>Metalinguistic awareness contributes to effective writing at university. Writing is a meaning-making process where linguistic, cognitive, social and creative factors are at play. University students need to master the skills and academic writing not only for getting their degree but also for their future career. It is also significant for lecturers to know how our students are, how they think and how we can best assist them. This study examines first-year undergraduate Australian and international engineering students as writers of academic texts in a multicultural setting at the University of Adelaide. A questionnaire and interviews were used to collect data about students' level of metalinguistic awareness, their attitudes toward, expectations for, assumptions about and motivation for writing. The preliminary results of the research show that students from different cultures initially have different concepts about the academic genres and handle writing with different learning and writing styles, but those with a more developed metalanguage are more confident and motivated. The conclusion can also be drawn that students' level of motivation for academic writing positively correlates with their opinion about themselves as writers. Following an in-depth multi-dimensional analysis of preliminary research results, some recommendations for writing instruction will also be presented.</p>	<p>Background / Problem</p> <p>Purpose / Aim</p> <p>Methods</p> <p>Results</p> <p>Conclusions</p>

Abstract	Key Parts
<p>Global warming is arguably one of the most pressing concerns of our time. However, we lack an effective model to predict precisely by how much the temperature will rise as a consequence of the increased levels of CO2 and other factors. The width of this range is due to several uncertainties in different elements of the climate models, including the variability in the Sun's rate of energy output. To gain greater insight into the relationship between solar energy output and global temperature, we propose to launch the internationally led ABC satellite in April 2012. Our aim is to collect for 2 years data on the solar diameter and shape, oscillations, and photospheric temperature variation. We will assess these data to model solar variability. Our findings will dramatically advance our understanding of solar activity and its climate effects.</p>	<p>Background Problem</p> <p>Objective</p> <p>Strategy</p> <p>Significance</p>

Common problem with abstracts

Writing problems

- Excessive length
- Unclear sentences

AVOID in abstracts:

- ✓ Any confidential information
 - ✓ Graphs or images
 - ✓ Citations
 - ✓ Redundancies
- 

AVOID useless and emotional intensifiers:–

**Really, always, very, quite, extremely, severely,
clearly, certainly, essentially, actually**

□ Examples:

The results clearly show that the protein was absent in the fraction.

The results show that the protein was absent in the fraction.

Our results may indicate that siRNA duplex possibly caused an RNA interference effect.

Our results suggest that siRNA duplex causes an RNA interference effect.

AVOID expletive constructions **there is/are** or **it is**

Example:

There is fellowship training Allergy and Clinical Immunology and Pulmonary Medicine at Yale University.

Yale University provides fellowship training in Allergy and Clinical Immunology and Pulmonary Medicine.



OMIT “overview” phrases and sentences:–

- ▶ Recent studies describes /reported that.....
- ▶ The experiment shows that....

Example:

Our recent studies reported that intracellular calcium is released when adipocytes are stimulated with insulin. (15 words)

Intracellular calcium is released when adipocytes are stimulates with insulin. (10 words)

Use Simpler Vocabulary

Examples:–

- A large number of = many
 - As a general rule = generally
 - Is equipped with = contains
 - In the light of the fact = because
- 

Write Shorter Sentences

- ✓ Easy to understand (~ 20 words)
 - ✓ Emphasize the idea
 - ✓ Weigh more
- ▶ Example:
- It is generally accepted in the field of medicine that rheumatic fever is an autoimmune disease.

Rheumatic fever is an autoimmune disease.



Presentation Guidelines



Slide Detail

- Each slide should have a **maximum of five points or short sentences.**
 - Slides should **represent summary points** of your discussion rather than your verbal presentation in totality.
 - Avoid using transitions between slides and within slides as these become distracting.
- 

Number of Slides

- ▶ The duration of your presentation will determine the number of slides that is acceptable.
- ▶ As a general rule, if your presentation is 10 minutes in duration 5 – 10 slides (2 or 1 min per slide respectively) would be acceptable; if your presentation is 20 minutes in duration 10– 20 slides would be acceptable.
- ▶ Remember you are talking to your slides and not from them.

Font

- ▶ Font type and size is determined by personal preference.
 - ▶ **Basic fonts** such as 'Times New Roman' or 'Arial' are easy to read.
 - ▶ A font size of **26 -30** is acceptable.
- 

Content

- ▶ The content of your slides should be brief.
 - ▶ Your presentation should have a distinct introduction, body and conclusion
 - ▶ The following headings should be included:
title, overview, background/problem,
objectives, body, conclusion,
recommendations and acknowledgements.
- 

1. Title

- Title of the project
- Include the names of the authors
[1 slide].

2. Overview/ content outline

- Outline the progression of your presentation.
 - It is a brief overview of what you're going to discuss and in what order
[1 slide].
- 

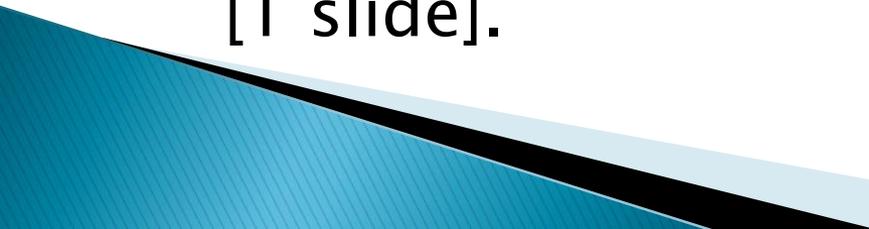
3. Background/Introduction

- ▶ Outline the current literature on the topic
- ▶ Provide a justification for undertaking the research or quality project.
[1 slide]

4. Problem Statement

- ▶ A concise description of the research issues that need to be addressed.
[1 slide]

5. Objectives

- ▶ Outline what you wanted to achieve
[1 slide].
- 

6. Body

- If you are presenting the findings of your research or quality assurance activity, the body of your presentation should include:
 - i. Methods
 - ii. Findings / Results
 - iii. Limitations

 - If your presentation has in-depth findings with multiple figures, tables and/or graphs, additional slides maybe required.

 - Figures, tables or graphs should be presented clearly.
- 

7. Conclusion

- ▶ Summarise the key points and objectives of your presentation.

8. Recommendation (if necessary)

- ▶ Highlight your recommendations for clinical practice, research and education purposes.
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9. Gantt Chart of Research Activities (Optional)

10. Acknowledgements (if necessary)

- ▶ If you received assistance from any funding bodies, individuals or institutions, it is important that you publically acknowledge the assistance you received.

Thank you!

Note: Date of 26th BioTech Colloquium will be announced later.

Expected dates 7–8 December 2016.



**24 Nov 2016
(Thursday)***

***Deadline to submit your approved abstract
Submit abstract with wrong format, your marks will be deducted!!!**