



## 13<sup>th</sup> Young Scientist Seminar

**“Establishment of International Research Network  
for Tropical Bioresources and Their Utilization”**

### First Circular

**18th – 19th November 2017**

**(Yamaguchi Prefectural Seminar Park, Yamaguchi, Japan)**

**Organized by :**  
**Yamaguchi University**

#### **In Association with:**

**Japan Society for the Promotion of Science (JSPS)**  
**National Research Council of Thailand (NRCT)**  
**Vietnam Ministry of Science & Technology (MOST)**  
**Yamaguchi University (JAPAN)**  
**Can Tho University (VIETNAM)**  
**National University of Laos (LAOS)**  
**Brawijaya University (INDONESIA)**  
**Beuth University of Applied Sciences (GERMANY)**  
**The University of Manchester (UNITED KINGDOM)**

## Invitation

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On behalf of the Organizing Committee, we are pleased to invite you to the 13<sup>th</sup> Young Scientist Seminar (YSS) in Yamaguchi, Japan. This seminar will be held on 18<sup>th</sup> – 19<sup>th</sup> Nov 2017. The YSS aims to establish international network among young researchers including students, to broaden their knowledge about recent developments in scientific field around the world.

## Venue

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The 13<sup>th</sup> YSS will be held at the Yamaguchi-ken Seminar Park, Yamaguchi, Japan. This is a prefectural facility to provide a wonderful environment to meet with colleagues in a relaxing atmosphere.

Yamaguchi prefecture is located in the westernmost tip of Honshu island, the 2<sup>nd</sup> most populous island in the world. Because of its geographical location and ocean current, it has long had cultural exchanges with the Korean Peninsula.

Yamaguchi city is situated in the center of the prefecture. It has been long called “Kyoto of the West” due to its cultural similarities with Kyoto, the capital of Japan in the 14<sup>th</sup> century.

The temperature in November ranges from 5°C in the morning to 17°C in the afternoon.

## Organization Committee

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<i>Chairperson</i>	
<i>General manager</i>	<i>Kentaro Nakamura</i>
<i>Financial manager</i>	<i>Aya Nishioka</i>
<i>Transportation</i>	<i>Toshiyuki Tanaka</i>
<i>Audio visual and placement</i>	<i>Megumi Ichiki</i>
<i>Abstract and Registration</i>	<i>Kotaro Inukai</i>
<i>Accounting Clerk</i>	<i>Ryota Takahashi</i>
<i>Public Relations</i>	<i>Kenzo Yonemitsu</i>

## Sessions

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The scientific program is composed of plenary, parallel and discussion session

## Scope

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The scientific scope of the seminar follows most of the well received features of the previous events not only in the area of utilization of tropical bioresources but also in the biological field.

## **Advisory Committee**

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### ***General Coordinators***

Prof. Dr. Kazunobu Matsushita  
Dr. Napavarn Noparatnaraporn  
Prof. Dr. Vo-Tong Xuan

### ***Coordinators***

Prof. Dr. Mamoru Yamada  
Assoc. Prof. Dr. Gunjana Teeragool  
Assoc. Prof. Dr. Ngo Thi Phuong Dung  
Assoc. Prof. Dr. Somchanh Bounphanmys  
Dr. Anton Muhibuddin  
Prof. Dr. Ing. Peter Gotz  
Prof. Dr. Constantinous Theodoropoulos

### ***Committee members***

Prof. Dr. Shinichi Ito  
Assoc. Prof. Dr. Toshiharu Yakushi  
Prof. Dr. Ken Maeda  
Prof. Dr. Kenji Matsui  
Assoc. Prof. Dr. Hisashi Hoshida  
Prof. Dr. Osami Misumi  
Prof. Dr. Rinji Akada  
Assist. Prof. Dr. Tomoyuki Kosaka  
Prof. Dr. Tsuyoshi Imai  
Assist. Prof. Dr. Naoya Kataoka  
Ms. Naoko Miyaji

## **Language of the Seminar**

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The official language of the Seminar is English and no translation facilities are available.

## **Seminar Theme**

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Establishment of international research network for tropical bioresources and their utilization

## **Social Program**

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An icebreaker party will be taken place in the evening of the 18<sup>th</sup> Nov, 2017

## **Insurance**

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All delegates are advised to take out their own health and life insurance for the duration of the Seminar.

## Important Dates

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Deadline for submission of the registration form: 18<sup>th</sup> Aug 2017

Deadline for submission of the abstract : 18<sup>th</sup> Aug 2017

\* Please submit your abstract before deadline.

When you send the registration form (Excel file)

Please write [Registration form of 13<sup>th</sup> YSS, laboratory name, Country] as the E-mail title.

For example, Registration form of 13<sup>th</sup> YSS, Genome lab, Japan

When you send the abstract (Word file)

Please write [Abstract of 13<sup>th</sup> YSS, laboratory name, Country] as the E-mail title

For example, Abstract of 13<sup>th</sup> YSS, Genome lab, Japan

Please send E-mail to [g002vh@yamaguchi-u.ac.jp](mailto:g002vh@yamaguchi-u.ac.jp)



Instruction of Registration form

Laboratory name																																			
Name	First name, Middle name, Last name																																		
Gender	Male or Female																																		
Nationality																																			
Passport No.	Please attach your passport as a PDF file on the E-mail if you come from outside of Japan.																																		
University																																			
Department																																			
Position	<p>Fill in your abbreviated title.</p> <table border="1"> <thead> <tr> <th>Abbreviated Title</th> <th>Position</th> </tr> </thead> <tbody> <tr> <td>Prof.</td> <td>for Professor</td> </tr> <tr> <td>Assoc. Prof.</td> <td>Associate Professor</td> </tr> <tr> <td>for</td> <td></td> </tr> <tr> <td>Assist. Prof.</td> <td>Assistant Professor</td> </tr> <tr> <td>for</td> <td></td> </tr> <tr> <td>Lect.</td> <td>Lecturer</td> </tr> <tr> <td>for</td> <td></td> </tr> <tr> <td>Res.</td> <td>Researcher</td> </tr> <tr> <td>for</td> <td></td> </tr> <tr> <td>D3</td> <td>for Doctor 3<sup>rd</sup> year</td> </tr> <tr> <td>D2</td> <td>for Doctor 2<sup>nd</sup> year</td> </tr> <tr> <td>D1</td> <td>for Doctor 1<sup>st</sup> year</td> </tr> <tr> <td>M2</td> <td>for Master 2<sup>nd</sup> year</td> </tr> <tr> <td>M1</td> <td>for Master 1<sup>st</sup> year</td> </tr> <tr> <td>B4</td> <td>for Bachelor 4<sup>th</sup> year</td> </tr> <tr> <td>O</td> <td>for others</td> </tr> </tbody> </table>	Abbreviated Title	Position	Prof.	for Professor	Assoc. Prof.	Associate Professor	for		Assist. Prof.	Assistant Professor	for		Lect.	Lecturer	for		Res.	Researcher	for		D3	for Doctor 3 <sup>rd</sup> year	D2	for Doctor 2 <sup>nd</sup> year	D1	for Doctor 1 <sup>st</sup> year	M2	for Master 2 <sup>nd</sup> year	M1	for Master 1 <sup>st</sup> year	B4	for Bachelor 4 <sup>th</sup> year	O	for others
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Presentation	If you have a presentation, "yes". If you have no presentation, "no".																																		
Stay at Seminar Park	Do you need stay at Seminar Park on the Nov. 18 <sup>th</sup> night? "Yes" or "No"																																		
Breakfast	Do you need breakfast on the Nov. 19 <sup>th</sup> morning? "Yes" or "No"																																		
Food allergies or dietary restrictions	If you have any food allergies or dietary restrictions, please write.																																		
Transportation	Do you want to use the shuttle bus from Yamaguchi University or Shin-Yamaguchi station to the Yamaguchi Seminar Park? Please write "Yamaguchi University" or "Shin-Yamaguchi station" or "No"																																		
E-mail																																			

Remark;

**Important Deadline**  
**Submission of registration form: 18<sup>th</sup> August**  
**2017**



**The 12<sup>th</sup> Young Scientist Seminar (22<sup>th</sup>-23<sup>th</sup> November, 2016)**

## Abstract format

### The following format is required:

1. **A single page.** Adjust single line spacing.
2. Typewritten on an **A4** paper with margin as follows:
  - Top margin **1.0 inch**
  - Bottom margin **1.0 inch**
  - Left margin **1.5 inch**
  - Right margin **1.0 inch**
3. Use **Times New Roman**
4. For Title, use bold letters in 14 pt size and align centre.
5. For Authors and their addresses, use bold letters in 10 pt size and italic letters in 10 pt size, respectively, and align left.
6. For Text, use plain letters in 12 pt size.
7. File name: Please use your full name, given name\_FAMILY NAME, for the abstract file name.

For example, Toshitaka\_FUNAHASHI.doc  
Toshitaka\_FUNAHASHI.docx

## Oral presentation

1. **Invited speakers :** The duration of oral presentation is 30 minutes, and discussion is 5 minutes.
2. **Participants :** The duration of oral presentation is 10 minutes, and discussion is 3 minutes in group discussion.

### Remark;

**Important Deadline**  
**Submission of abstract: 18<sup>th</sup> August 2017**

**TITLE** .....

**(Authors)** .....<sup>1</sup> .....<sup>2</sup> .....<sup>3</sup> and .....<sup>4</sup>  
*(Addresses)*<sup>1</sup> .....<sup>2</sup> .....<sup>3</sup> .....<sup>4</sup> .....

## Enhanced protein production by using intron sequences in the yeast *Saccharomyces cerevisiae*

Masaki Kondo<sup>1</sup>, Takahumi Kobayashi<sup>1</sup>, Hisashi Hoshida<sup>1</sup>, Rinji Akada<sup>1</sup>

<sup>1</sup>Dept. App. Mol. Biosci., Grad. Sch. Med., Yamaguchi Univ.

In previous study, genome-wide analysis revealed that *Saccharomyces cerevisiae* *Δsnt309* strain produced a secretory protein *yCLuc* by 5.7-fold higher than wild type. *SNT309* encodes a subunit protein of NineTeencomplex which is involved in splicing of nuclear RNAs via splisosome. To examine the relationship between splicing and protein expression, an intron sequence was introduced into *yCLuc* and the secreted activity was measured. The *yCLuc* containing the intron showed 30-fold higher activity than wild type, indicating that intron has an ability to enhance gene expression. In this study we investigated that the effect of the introns, which located at 5'-untranslated region (5'UTR), on gene expression.

We searched introns located at around 5'UTR in *S. cerevisiae* genome and found 3 promoters which have an intron in the 5'UTR and a gene which has an intron just behind the start codon ATG. They are called intron promoter hereafter. If the promoters with intron showed high activity, they are convenient for recombinant protein production. The 4 intron promoters found in *S. cerevisiae* genome were used for *yCLuc* expression. The activities were 3~7-fold higher than the case of *TDH3* promoter, which is well-known constitutive strong promoter. Deletion of the intron in the intron promoters decreased *yCLuc* activities, indicating that the introns are important for high-expression activity of the intron promoters.

We hypothesized that chimeric promoters consisting of a strong promoter without intron and an intron promoter shows further higher activity. To test this hypothesis *TDH3* promoter and *RPS25A* promoter, one of the intron promoters, are joined at various positions and resulting chimera promoters were used for *yCLuc* expression. The chimera promoter consisting of the *TDH3* promoter to -1 position and *RPS25A* intron with 16-bp flanking sequence showed the highest activities and it was 50-fold higher than *TDH3* promoter. The chimera promoter using the galactose inducible *GAL10* promoter was also constructed. The *GAL10-RPS25A* intron chimera promoter showed 8.5-fold higher activity than *GAL10p* promoter in galactose condition but did not work in glucose condition. These results indicate that introns enhance gene expression in *S. cerevisiae*.