

The 15th Young Scientist Seminar

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

First Circular

13th – 14th November 2018

(Yamaguchi-ken Seminar Park, Yamaguchi, Japan)

**Organized by :
Yamaguchi University**

Invitation

On behalf of the Organizing Committee, we are pleased to invite you to the 15th Young Scientist Seminar (YSS) in Yamaguchi, Japan. This seminar will be held on 13th – 14th Nov 2018. 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

The 15th 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 2nd most populous island in the world. Because of its geographical location and ocean current, it has long had cultural exchanges together ASEAN areas.

In addition, Yamaguchi Prefecture has become the stage of the turning point which makes a big change in the history of Japan many times. 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 14th century.

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

Organization Committee

<i>Chairperson</i>	<i>Taito Sasaki</i>
<i>General manager</i>	<i>Marino Hara</i>
<i>Financial manager</i>	<i>Makoto Higuchi</i>
<i>Transportation</i>	<i>Yusuke Shiota</i>
<i>Audio visual and placement</i>	<i>Chiaki Sakai</i>
<i>Abstract and Registration</i>	<i>Naho Ichikawa</i>
<i>Accounting Clerk</i>	<i>Takuto Yamasaki</i>
<i>Public Relations</i>	

Sessions

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

Scope

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

Dean, Prof. Dr. Jun KOBAYASHI
Prof. Dr. Mamoru YAMADA
Prof. Dr. Shinichi ITO
Prof. Dr. Masayoshi SHIGYO
Prof. Dr. Tsuyoshi IMAI
Prof. Dr. Kenji MATSUI
Assoc. Prof. Dr. Toshiharu YAKUSHI
Assoc. Prof. Dr. Hisashi HOSHIDA
Assist. Prof. Dr. Tomoyuki KOSAKA
Assist. Prof. Dr. Kazunori SASAKI
Assist. Prof. Dr. Naoya KATAOKA
Ms. Naoko MIYAJI

Language of the Seminar

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

Seminar Theme

Establishment of international research network for tropical bioresources and their utilization

Social Program

An icebreaker party will be taken place in the evening of the 13th Nov, 2018

Insurance

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

Important Dates

Deadline for submission of the registration form: 13th Aug 2018

Deadline for submission of the abstract : 13th Aug 2018

*** Please submit your abstract before deadline.**

When you send the registration form (Excel file)

Please write [Registration form of 15th YSS, laboratory name, Country] as the E-mail title.

For example, Registration form of 15th YSS, Genome lab, Japan

When you send the abstract (Word file)

Please write [Abstract of 15th YSS, laboratory name, Country] as the E-mail title

For example, Abstract of 15th YSS, Genome lab, Japan

Please send E-mail to

i011vh@yamaguchi-u.ac.jp (Mr. Sasaki, who is general manager for the 15th YSS)

Instruction of Registration form

Laboratory name																											
Name	Given name, Middle name, Family 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>for Associate Professor</td> </tr> <tr> <td>Assist. Prof.</td> <td>for Assistant Professor</td> </tr> <tr> <td>Lect.</td> <td>for Lecturer</td> </tr> <tr> <td>Res.</td> <td>for Researcher</td> </tr> <tr> <td>D3</td> <td>for Doctor 3rd year</td> </tr> <tr> <td>D2</td> <td>for Doctor 2nd year</td> </tr> <tr> <td>D1</td> <td>for Doctor 1st year</td> </tr> <tr> <td>M2</td> <td>for Master 2nd year</td> </tr> <tr> <td>M1</td> <td>for Master 1st year</td> </tr> <tr> <td>B4</td> <td>for Bachelor 4th year</td> </tr> <tr> <td>O</td> <td>for others</td> </tr> </tbody> </table>	Abbreviated Title	Position	Prof.	for Professor	Assoc. Prof.	for Associate Professor	Assist. Prof.	for Assistant Professor	Lect.	for Lecturer	Res.	for Researcher	D3	for Doctor 3 rd year	D2	for Doctor 2 nd year	D1	for Doctor 1 st year	M2	for Master 2 nd year	M1	for Master 1 st year	B4	for Bachelor 4 th year	O	for others
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M1	for Master 1 st year																										
B4	for Bachelor 4 th year																										
O	for others																										
Presentation	<p>If you have a presentation, "yes".</p> <p>If you have no presentation, "no".</p>																										
Stay at Seminar Park	Do you need stay at Seminar Park on the Nov. 13 th night? "Yes" or "No"																										
Breakfast	Do you need breakfast on the Nov. 14 th 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;

<p style="text-align: center;">Important Deadline</p> <p style="text-align: center;">Submission of registration form: <u>13th August 2018</u></p>
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The 13th Young Scientist Seminar (18th-19th November, 2017)

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: 13th August 2018

TITLE

(Authors)¹,²,³ and⁴

(Addresses)¹.....².....³.....⁴.....

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

Masaki Kondo¹, Takahumi Kobayashi², Hisashi Hoshida³, Rinji Akada⁴

¹Graduate School of Medicine, Yamaguchi Univ. ²Faculty of Engineering, Yamaguchi Univ., ³Graduate School of Engineering, Yamaguchi Univ., ⁴Graduate School of Science and Technology for Innovation, Yamaguchi Univ.

In previous study, genome-wide analysis revealed that *Saccharomyces cerevisiae* Δ snt309 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 spliceosome. 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*.



In Association with:

Japan Society for the Promotion of Science (JSPS)
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Beuth University of Applied Sciences (GERMANY)
The University of Manchester (UNITED KINGDOM)

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