2019 Taiwan International Conference on Physical Activity and Exercise Science

Aim & Scope
To facilitate and enhance communication across all sub-disciplines of physical activity, exercise sciences and social sciences.

Sponsor
Ministry of Science, Taiwan
Ministry of Education, Taiwan
Taichung City Government, Taiwan

Host
National Chung Hsing University,
Taiwan Society of Physical Education and Exercise Sciences

Host Institute
Graduate Institute of Sport and Health Management, National Chung Hsing University,
Taichung, Taiwan

Co-Host Institutes
Office of Research and Development, National Chung Hsing University
College of Management, National Chung Hsing University
Physical Education Office, National Chung Hsing University
Research Office, National Taiwan University of Physical Education and Sport
College of Athletics, National Taiwan University of Physical Education and Sport
Department of Physical Education, National Taichung University

Date
May 4-5, 2019

Venue
International Conference Hall, B1, Social Science and Management Building, National Chung Hsing University, Taichung, Taiwan
Themes
1. Physical Activity
2. Exercise Sciences
3. Recreation Management
4. Exercise and Health
5. Exercise, Social Science and Humanity

Program
Please see the appendix

Participants
Researchers, teachers, coaches, students and interested groups.

Important date
Abstract submission deadline: March 31, 2019
Abstract acceptance notification: April 17, 2019
Registration Deadline: April 26, 2019

Registration
For local participants, please register through following websites: https://www.tspaes.org.tw/
For international participants registration, please contact the Conference Office at Tel: +886-4-22840845; email: gishm2007@nchu.edu.tw

Registration fee
$100 US dollars (includes lunches, coffee break, conference material and participant certificate) for international participants. Please contact the Conference Office at Tel: +886-4-22840845; email: gishm2007@nchu.edu.tw

Conference contacts
Professor Ching-Lin Wu, Graduate Institute of Sport and Health Management, National Chung Hsing University, Taichung, Taiwan
Tel: +886-4-22840845; email: gishm2007@nchu.edu.tw
ABSTRACT SUBMISSION
The Conference welcomes contributions from areas of physical activity and exercise sciences. Abstract should be submitted through website: http://www.tspaes.org.tw. For assistant, please contact the Conference Office at Tel: +886-4-22840845; email: gishm2007@nchu.edu.tw

Abstract reviewing
All abstracts will be reviewed by the Scientific Committees, which will make recommendations as to the type of presentation (oral or poster). The poster size is suggested to be 120cm×90cm at portrait style.

Abstract format
Abstracts must be in English. Please prepare the abstract according the following format:
1. Paper size: A4 (29.7cm×21.0cm), Portrait.
2. Margins: 1 inch at each side.
4. Title: size 12-point, All cap, bold, centered.
5. Authors: size 12-point, bold, centered.
7. Abstract text: size 12-point, bold subtitles, justifying the left margins.
8. Key words: size 12-point, bold, justifying left margins
9. Line space: single space.

Abstracts should be written in a letter-only manner. Do not use sub-title, figure, table and any non-letter content. Remove citation list, special symbol, header and footer. Email address of the corresponding/presenting author is to be listed (see the example below).

THE EFFECT OF CARBOHYDRATE AND EXERCISE ON POSTPRANDIAL LIPID METABOLISM RELATED GENE EXPRESSION

Wu, Ching-Lin¹, Tseng, Mei-Huei², Yang, Tsung-Jen³, Chang, Cheng-Kang⁴

¹ Graduate Institute of Sport and Health Management, National Chung Hsing University, Taiwan.
² Department of Exercise and Health Science, National Taiwan College of Physical Education, Taiwan.
³ Department of Physical Education, National Taiwan College of Physical Education, Taiwan.
⁴ Department of Sport Management, National Taiwan College of Physical Education, Taiwan.

Introduction: Postprandial lipemia may attenuate by exercise, subsequently, to reduce the
risk of cardiovascular diseases. The underlying mechanism of lipid metabolism in the liver is not fully elucidated. Peripheral blood mononuclear cells (PBMCs) gene expression has been suggested to represent lipid metabolism in the liver. Therefore, the purpose of this study was to investigate the effect of carbohydrate and exercise on lipid metabolism related gene expression after high fat meal. **Methods:** Eight healthy, active male subjects completed 4 experimental trials in a randomized order and cross-over design. After overnight fast, subjects either ingested 75 g fructose (F) or 75 g glucose (G) and rest or exercise at 60% VO2max for 1 hour (F+EX, G+EX) before an oral fat tolerance test. Blood samples were collected during 6 hour postprandial period. Peripheral blood mononuclear cells (PBMCs) were harvested to obtain RNA to determine ApoA-I, Apo B, LDL-receptor (LDLR), VLDL-receptor (VLDLR) and HMGCoA reductase (HMGCR) mRNA expression using real-time PCR technique. **Results & Conclusions:** The results showed that F and F+EX induced higher plasma ApoA-I and lower plasma total cholesterol and LDL-C than G and G+EX. There were no significantly differences in ApoA-I、Apo B、LDLR、HMGCR、VLDLR gene expression between trials. However, there was a trend that ingesting F trial indicated a lower VLDLR gene expression. The current data suggested that ingestion of different carbohydrates and exercise before a high fat meal did not influence postprandial lipid metabolism related gene expression.

**Key words:** postprandial lipemia, exercise, gene expression

**Correspondence:** Professor Ching-Lin Wu, psclw@dragon.nchu.edu.tw, +886-4-22840845 ext 602
### 2019.5.4(Sat)

<table>
<thead>
<tr>
<th>Time</th>
<th>Theme</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30-9:00</td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td>9:00-9:20</td>
<td>Opening ceremony</td>
<td></td>
</tr>
<tr>
<td>9:30-10:30</td>
<td>Keynote Speech I&lt;br&gt;24 hours movement guideline: the Canadian experience</td>
<td>Dr. Eun-Young Lee&lt;br&gt;Queen’s University, Canada</td>
</tr>
<tr>
<td>10:30-10:50</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>10:50-11:50</td>
<td>Keynote Speech II&lt;br&gt;Respiratory muscle training for health and exercise performance</td>
<td>Dr. Lee Romer&lt;br&gt;Brunel University, UK</td>
</tr>
<tr>
<td>11:50-12:20</td>
<td>Taiwan Society of Physical Activity and Exercise Science Members’ Assembly</td>
<td></td>
</tr>
<tr>
<td>12:20-13:00</td>
<td>Lunch and Exhibition</td>
<td></td>
</tr>
<tr>
<td>13:00-14:00</td>
<td>Poster Presentation I-V</td>
<td></td>
</tr>
<tr>
<td>14:00-15:00</td>
<td>Keynote Speech III&lt;br&gt;Exercise and Cognitive Function in Children and Elderly</td>
<td>Prof. Yu-Kai Chang&lt;br&gt;Taiwan Normal University, Taiwan</td>
</tr>
<tr>
<td></td>
<td>Keynote Speech IV&lt;br&gt;Nutritional Supplement in Practice: Now and Future</td>
<td>Prof. May-Chih Hsu&lt;br&gt;Kaohsiung Medical University, Taiwan</td>
</tr>
<tr>
<td>15:00-16:00</td>
<td>Special Symposium on Kids and Youth Physical Activity in Asia Region I: Current Situation and Future</td>
<td></td>
</tr>
<tr>
<td>16:00-16:30</td>
<td>Coffee break</td>
<td></td>
</tr>
<tr>
<td>16:30-17:30</td>
<td>Oral Presentation</td>
<td></td>
</tr>
<tr>
<td>18:00-20:00</td>
<td>Welcome Dinner</td>
<td></td>
</tr>
</tbody>
</table>

### 2019.5.5(Sun)

<table>
<thead>
<tr>
<th>Time</th>
<th>Theme</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00-10:00</td>
<td>Keynote Speech V&lt;br&gt;Football science: from laboratory to the pitch</td>
<td>Dr. Andrew Foskett&lt;br&gt;Massey University, New Zealand</td>
</tr>
<tr>
<td>10:00-11:00</td>
<td>Keynote Speech VI&lt;br&gt;Olympic Games Legacy in Elite Sport: From the 2008 Beijing Summer Olympics to the 2022 Beijing Winter Olympic Games</td>
<td>Dr. Xiao-Qian Hu&lt;br&gt;Chin-Hwa University, China</td>
</tr>
<tr>
<td>11:00-11:20</td>
<td>Coffee Break</td>
<td></td>
</tr>
<tr>
<td>11:20-12:20</td>
<td>Special Symposium on Kids and Youth Physical Activity in Asia Region II: Policy, Strategy and Future Development</td>
<td></td>
</tr>
<tr>
<td>12:20-13:10</td>
<td>Lunch and Exhibition</td>
<td></td>
</tr>
<tr>
<td>13:10-14:10</td>
<td>Poster Presentation</td>
<td></td>
</tr>
<tr>
<td>14:10-15:30</td>
<td>Oral Presentation</td>
<td></td>
</tr>
<tr>
<td>15:30-16:00</td>
<td>Closing Ceremony</td>
<td></td>
</tr>
</tbody>
</table>