39th ISMH
World Congress of International Society of Medical Hydrology and Climatology

Responses of human body to stimuli from nature

May 11-14, 2014
Venue: Kyoto International Conference Center

President: Shigeko Inokuma
Director, Department of Allergy and Rheumatic Diseases / Rheumatology Center, Japanese Red Cross Medical Center

Secretariat: The Japanese Society of Balneology, Climatology and Physical Medicine
39th World Congress of International Society of Medical Hydrology and Climatology (ISMH)

“Responses of human body to stimuli from nature”

Date : May 11 (Sun.) - 14 (Wed.), 2014

Venue : Kyoto International Conference Center
Takaragaike, Sakyo-ku, Kyoto 606-0001 Japan
TEL +81-75-705-1234  FAX +81-75-705-1100

President : Shigeko Inokuma, Japanese Red Cross Medical Center

Secretariat : The Japanese Society of Balneology, Climatology and Physical Medicine
Tsuchiya Bldg., 14-5, 1-Chome, Kyobashi, Chuo-ku, Tokyo 104-0031, Japan
Tel: 03-3562-8020  Fax: 03-3562-8030
E-mail: ismh-bcpm.2014@onki.jp
URL: http://ismh2014.com/
Message from the President

Dear ISMH Members, BCPM Members, and Colleagues:

On behalf of the Japanese Society of Balneology, Climatology and Physical Medicine (BCPM), I am inviting you to the 39th World Congress of ISMH in Japan. This will be the first time for ISMH to be held outside of Europe since it was established in 1921.

Since ancient times, humans have accumulated knowledge about how their body reacts to stimuli from nature. We have used such responses of the body to treat discomfort, trauma, and diseases, and even to diagnose certain conditions. The empirically accumulated feelings, experiences, and knowledge have evolved to become the science of balneology or physical medicine. This field has recently become more than a concept in medicine at a time when severe artificial therapeutic measures predominate.

Japan has nearly 30,000 hot-spring sources and nearly 3,000 hot-spring areas throughout its many islands. It is the country most abundant in hot-spring sources in the world. Scientific research led to the establishment of BCPM in Japan in 1935.

Kyoto, the ancient capital of Japan for over 10 centuries until 1869, was designated as a World Heritage Site in 1994. Many shrines and temples have been designated as National Treasures. May is an especially beautiful time of the year and we are delighted to be holding the Congress in Kyoto in May.

Please attend the joint meeting of the 39th World Congress of ISMH and 79th BCPM, and present your excellent lectures.

Shigeko Inokuma, MD, PhD, FACP
President of the 39th World Congress of International Society of Medical Hydrology
Dear participants and presenters,

To participants,

1. The reception desks will open from 15:30 on May 11th (Sun.). They will be set up around the ground-floor reception area of Kyoto International Conference Center (ICC). The registration fee is 50,000 yen (ISMH or BCPM member). If you are a student no admission fee is required, but requested to show your student ID. The fee of non-member of ISMH or BCPM (except for students) is 55,000 yen. Welcome reception and gala dinner are included in the registration fees.

2. A name tag will be handed at the time of reception. Please wear the tag in a visible manner while you are in the venue.

3. Opening Ceremony will be held in “Room A” from 19:00, May 11th (Sun.). Also, welcome drink will be served at the ground-floor “Swan” of ICC from 19:30. Please attend on this occasion.

4. A gala dinner is scheduled from 18:30, May 13th (Tue.) at the ground-floor “Sakura” of ICC. We hope that you will be joining us.

5. Luncheon seminars will be held on May 12th (Mon.) and on 13th (Tue.) at “Room A”. Please note that the number of seat on each day is limited.

6. If you need another copy of this book, it is available at the reception for a fee.
To presenters,

1. All abstracts will be reported orally using personal computers. Allocated time for each speaker is:
   • Keynote and combined: 15 minutes for presentation and 3 minutes for discussion.
   • Others: 10 minutes for presentation and 3 minutes for discussion.
   Signs will be given one minute prior to each end. Please be reminded that there will be no discussion if you spend allocated minutes all for your presentation.

2. Please register your presentation file through the Congress website. Registration period is from April 22nd (Tue.) to May 2nd (Fri.) Follow the instruction of the screen.
   * COI (Conflict of Interest) disclosure disclosure: Attach COI disclosure statement on the second page (following the title page) of your presentation files upon submission. For details about COI, refer to the guideline on the Journal of the Japanese Society of Balneology, Climatology and Physical Medicine Vol.76 No.2 (February 2013).
39th World Congress of ISMH × 79th BCPM
COI Disclosure

Lead Presenter: 00 00
Affiliated Organization: 000000

There are no COI with regard to this presentation.

3. PCs for presentations will be prepared by the secretariat.

4. Please report to the reception desk for presentation no later than 30 minutes prior to your session and confirm if your presentation file works properly on a PC.

5. Abstracts will be published in the Journal of the Japanese Society of Balneology, Climatology and Physical Medicine afterwards. If you need any correction in your abstract already submitted, send a revised version to the secretariat via E-mail (ismh-bcpm.2014@onki.jp) no later than May 19th (Mon.), 2014. If not, the registered version will be printed. Please let us know in advance if you do not wish your abstract to be published.

6. If you should require any further information, please contact Secretariat at your convenience (ismh-bcpm.2014@onki.jp).
May 11 (Sun)

ROOM 1 (ROOM A)  ROOM 501  ROOM 510  ROOM 552

8:30  9:00  10:00  11:00  12:00  13:00  14:00  15:00  16:00  17:00  18:00  19:00  20:00  21:00

12:00-13:00  Association of Onsen-ryoho-i, board meeting

13:00-17:15  Training workshop for balneotherapy doctors

13:15-14:15  Committee meetings

14:30-16:00  Administrative board meeting

16:15-17:15  Council meeting

19:00-19:30  Opening ceremony

19:30-21:00  Welcome drink
Room: Swan
# Schedule for May 12 (Mon)

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 1 (ROOM A)</th>
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<th>Room 3 (ROOM B-2)</th>
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<td>8:50</td>
<td>ISMH presidential address</td>
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<tr>
<td>9:00</td>
<td>Section 1</td>
<td>9:10:30</td>
<td>Present topics on balneotherapy 1</td>
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<tr>
<td>9:10:30</td>
<td>Educational lecture 1</td>
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<td>10:00</td>
<td>Section 2</td>
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<td>Section 3</td>
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<td>Luncheon seminar 1</td>
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<td>Luncheon seminar 2</td>
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<td>Panel discussion</td>
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<td>BCPM general assembly</td>
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<td>Memorial service for Dr. S. Sukenik</td>
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<td>Presentation of excellent paper in 2013</td>
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<td>12:00-13:00</td>
<td>Luncheon seminar 3</td>
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<td>13:00-14:10</td>
<td>Special lectures from Japan</td>
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<td>Symposium 2</td>
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<td>ISMH general assembly</td>
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<td>18:00-20:30</td>
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**May 13 (Tue)**

**ROOM 1 (ROOM A)**

- **Section 8**: 8:30-9:40
- **Section 9**: 9:40-10:45
- **Section 10**: 10:45-12:00
- **Luncheon seminar 3**: 12:00-13:00
- **Special lectures from Japan**: 13:10-14:10
- **Symposium 2**: 14:10-16:10
- **ISMH general assembly**: 16:20-17:00
- **Special lecture 2**: 16:20-17:00
- **Section E**: 17:00-18:00
- **Reception and dinner**: 18:30-20:30

**ROOM 2 (ROOM B-1)**

- **Section C**: 9:00-9:50
- **Educational lecture 2**: 9:50-10:20
- **Symposium 1**: 10:20-12:00
- **Section D**: 13:10-14:00
- **Symposium 2**: 14:10-15:50
- **Section F**: 16:10-17:00
- **Section E**: 17:00-17:50

**ROOM 3 (ROOM B-2)**

- **Section 11**: 8:30-9:35
- **Section 12**: 9:50-10:45
- **Section 13**: 10:45-12:00
- **Section 14**: 13:10-14:05
- **Section 15**: 14:05-15:00
- **Section 16**: 15:00-16:05
- **Section 17**: 16:10-17:00
- **Section G**: 17:00-17:50
Access

1. To Kyoto Station

Route 1. From Kansai International Airport
- By Limousine bus
  2,500 yen, 2 hours to Kyoto, departing every 30 minutes.
- By Airport Shuttle Train “Haruka”
  about 3,500 yen, 70 minutes to Kyoto, departing every 30 minutes.
  http://www.kansai-airport.or.jp/en/access/train/

Route 2. From Osaka (Itami) Airport
- By Limousine bus,
  1,280 yen, about 55 minutes to Kyoto, departing every 20 minutes.

Route 3. From Tokyo Station
- By Shinkansen (Bullet Train) “Nozomi”
  about 13,000 yen, 2 hours 15 minutes to Kyoto, departing every 10-60 minutes.

2. From Kyoto Station to the Congress venue (ICC Kyoto)
- Take subway Karasuma line from Kyoto station and get down at
  Kokusaikaikan Station.
  280 yen, 20 minutes.
• About 75 minutes by Airport Shuttle Train “Haruka” from Kansai International Airport to Kyoto Station.
• About 55 minutes by Limousine bus from Osaka (Itami) Airport to Kyoto Station.
• 2 hours 15 minutes by Shinkansen (Bullet Train) from Tokyo Station to Kyoto Station.
Floor Map of the Venue
PROGRAM

May 12 (Mon)

Presidential address  8:30-8:50  ROOM 1 (ROOM A)
chairperson: Yoshinori Ohtsuka

39th ISMH President

Shigeko Inokuma  Department of Allergy and Rheumatic Diseases, Japanese Red Cross Medical Center

ISMH Presidential address  8:50-9:10  ROOM 1 (ROOM A)
chairperson: Shigeko Inokuma

ISMH President

Prof. Dr. Müfit Zeki Karagülle  MD, PhD, ISMH President

Present topics on balneotherapy 1  9:10-10:35  ROOM 3 (ROOM B-2)
chairperson: Tamas Bender

Sohtaro Mimasaka

PT1-1 Effect of balneotherapy on microcirculation in diabetic patients
- Irena Ponikowska, Michal Tolodziecki
  Department of Balneology and Physical Medicine, Nicolaus Copernicus University, Toruń, Poland

PT1-2 Current status balneotherapy in Spain
- Francisco Maraver123, Carla Morera12
  1) Professional School of Medical Hydrology, Faculty of Medicine, Universidad Complutense de Madrid, Madrid, Spain; 2) Dept. of Physical Medicine and Rehabilitation, Medical Hydrology, Faculty of Medicine, Universidad Complutense; 3) Thalasso Center, San Pedro del Pinatar-Murcia, Spain

PT1-3 Balneology in Europe: principles, practice, education and research
- Pedro Cantista123, Carolina Martins Moreira13
  1) Servio de Estaria, Hospital de Santo Antônio, Porto, Portugal; 2) Presidente da Sociedade Portuguesa de Hidrologia Medica; 3) Professor at the ICBAS Medicine School - University of Porto

PT1-4 Balneotherapy research in France: the AFRETH (French Association for Balneotherapy Research)
- Christian François Roques1, Claude Eugene Bouvier2
  1) Professor of Physical & Rehabilitation Medicine – Toulouse Sabatier University, AFRETH Scientific Committee President, Paris; 2) French College of Health Economy, AFRETH Manager, Paris

PT1-5 The Balneology Association of North America: Who we are, what we do, and our role in the international balneology profession
- Marcus Coplin
  Balneology Association of North America
**Balneotherapy actual medical Benefit. Data of evidence of the last twenty years**

- Christian François Roques
  - AFRETH Scientific Committee President, Paris, Physical & Rehabilitation Medicine Professor, Toulouse University, France

**Balneotherapy for common metabolic conditions – the French experience**

- Christian François Roques, Hanh T, Blin P, Gin H, Moore N
  - AFRETH, Paris

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**Present topics on balneotherapy 2**  
10:35-11:55  
ROOM 3 (ROOM B-2)

**Chairperson:** Pedro Cantista  
Hiroharu Kamioka

**EBM Balneotherapy in Hungary**

- Tamas Bender, Géza Bálint, Pál Géher, Zoltán Prohaszka, Ildiko Katalin Tefner  
  - Departement of Physiotherapy Hosp brother of St of God

**What’s new in Balneology?**

- Müft Zeki Karagülle  
  - Department of Medical Ecology and Hydroclimatology, Istanbul University, Istanbul Medical Faculty

**Immunoinflammatory regulation effects of Korean hot spring water**

- Jin-Wou Kim  
  - Department of Dermatology, Uijeongbu St. Mary’s Hospital, College of Medicine, The Catholic University of Korea

**Assessing the quality of study reports on spa therapy based on randomized controlled trials by the spa therapy checklist (SPAC)**

- Hiroharu Kamioka1), Kichiro Tsutani2), Masaharu Maeda3), Shinya Hayasaka4), Yastiaki Goto5)  
  1) Faculty of Regional Environment Science, Tokyo University of Agriculture, 2) Department of Drug Policy and Management, Graduate School of Pharmaceutical Sciences, The University of Tokyo, 3) Department of Rehabilitation, International University of Health and Welfare Graduate School, 4) Department of Health Science, Daito Bunka University, 5) Japan Health and Research Institute

**Balneotherapy in Russia**

- Nazim Badalov  
  - Russian Scientific Center of Rehabilitation and Resort Medicine, Moscow, Russian Federation
F-5
The sympathetic nerve reaction during the hand bathing of high concentration bicarbonate warm water

Masaharu Maeda, Jun Yamamoto
Department of Rehabilitation, International University of Health & Welfare graduate school, Japan

Introduction: The bicarbonate (CO₂) bathing has the vasodilatation effect, and that is controlled by the autonomic nerve. The report to the autonomic nerve of the artificial CO₂ water doesn’t have certain evidence. Here, the effect on the autonomic nerve when the forearm was immersed in the hand bath device of the high-concentration artificial CO₂ warm water was examined.

Method: The high-concentrate artificial CO₂ warm water hand bath device (“Carboseraompar SPA7001®” made by the Mitsubishi Rayon Cleansuit company) was used for the experiment. Objects are eight normal adults (mean 23 years old, 3 male and 5 female). The forearm was immersed during 15 min at 38 degree Celsius while keeping the rest, it measured with the LH/HP (Index of the sympathetic nerve activity measured by CHECK MY HEART®) measuring assembly of 10 min. after start bathing and of 10 min. after out of bathing, and it compared with the tap water bathing.

Results: In the tap water, LH/HP at 10 min. after start bathing was not changed, and the slight decreasing was recognized at 10 min. after out of bathing. In the CO₂ warm water, it was kept a slight increasing at 10 min. after start bathing, and kept the increasing with slight decreasing at 10 min. after out of bathing.

Discussion: Because LH/HP was slight increased, that thought to be a dominant sympathetic nerve was recognized though the vasodilatation was caused during the bathing in the artificial CO₂ warm water hand bath. This proved the vasodilatation caused by the CO₂ water was not due to the parasympathetic nerve activity, and it was thought that activity was unrelated. Moreover, this increasing was a vasodilate reaction at the activity of the sympathetic nervous system in the situation of the CO₂ bathing that excluded the temperature influence of 38 degree Celsius during the bathing. Therefore, the increasing of the sympathetic nervous system was thought to be another reaction that did not relate in the effect of the vasodilatation by the CO₂ water. In addition, after out of bathing, the decrease of the sympathetic nervous system or the activation of the parasympathetic nerve system is thought slight decreasing of LH/HP by tap water. Because the CO₂ water after 10min. out of bathing has been kept slight increasing compared with tap water, this period is suggested that a dominant state of the sympathetic nerve remains without becoming dominant of parasympathetic nerve.

Conclusion: The autonomic nerve of the CO₂ water in the hand bath seemed to be in the state of a dominant sympathetic nerve for 15 minutes while bathing. After bathing the sympathetic nerve domination still continues for 10 min.
H-3 The changes of the oriental medical state to use hot spring (Sawatari Onsen)

Ο Katsuhsa Nishi¹, Kiyoshi Mashio², Kazuo Takamine²

1) NishiOmiya hospital, Saitama, Japan
2) GUNMA rehabilitation hospital, Gunma, Japan

The Edo era, there was Syuan Kagawa (the Kampo doctor). His book [Hppoondo Yakusen] states SPA effect to be able to treat OKETU (disturbance of micro-circulation). We study his speech by comparison patients of hot spring use with patients of no using hot spring. Oketu is the term of oriental medicine, so we use the tool of oriental medical state analysis. To do it, we can score patient’s oriental medical states. The results say use of hot spring has low score of OKETSU, KETSUKYO, RINETU and KAN. Each word includes the abnormal situations of micro-circulations of the body. Use of hot spring improves micro-circulations of blood. We think that Syuan’s opinions are right.
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Sato Pharmaceutical Co., Ltd.
Sawai Pharmaceutical Co., Ltd.
Shionogi & Co., Ltd.
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Taisho Pharmaceutical Co., Ltd.
Takeda Bio Development Center Limited
Takeda Pharmaceutical Company Limited
Teijin Pharma Limited.

Terumo Corporation
Toa Eiyo Ltd.
Torii Pharmaceutical Co., Ltd.
Towa Pharmaceutical Co., Ltd.
Toyama chemical Co., Ltd.
Tsumura & Co.
Wakamoto Co., Ltd.
Yakult Honsha Co., Ltd.
Zeria Pharmaceutical Co., Ltd.

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Work station Co., Ltd.
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Japan Care System
Flora Co., Ltd.
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The Society for Sound Healing

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39th WORLD CONGRESS of ISMH

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Printer: SECAND,
4–39–11 Suizenji, Chuo–ku,Kumamoto 862–0950, Japan