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Message from President Jiin-Shuh Jean:

In 1998, attention was drawn to the groundwater arsenic problem faced by Bangladesh and other countries. Taiwan had experienced the blackfoot disease (BFD) problem during 1950-1990. This disease and other associated skin diseases and internal cancers might be related to consuming arsenic-contaminated groundwater. Although BFD was vanished in Taiwan for recent twenty years, this arsenic-contained groundwater has still been utilized in irrigation and aquaculturing. This can lead to pose a health threat. I would like to draw your attention in looking into this matter. We issue this newsletter twice a year. This newsletter contains some new messages of our progress and important research. I sincerely hope you can join us and publish your influential research papers and your opinions in this newsletter, making it more abundant and fruitful. Thank you much for your attention.

With best wishes,

Jiin-Shuh Jean

President of IMGA Taiwan Chapter
IMGA Chapter in the World List

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2011 Aims:

- To combine the three disciplines of hydrogeology, biology, and medicine in a collaborative research in any environmental epidemiology problems.
- To disclose your published papers, reports, and opinions.
- To understand our activity, meeting, published papers, and reports of the Taiwan Chapter of IMGA.

Activities from June to December:

- REPORTS ON CONFERENCES, WORKSHOPS AND MEETINGS

3rd International Congress on Arsenic in the Environment:

Date: May 17-21, 2010

Location: International Conference Hall of NCKU Tainan, Taiwan.

THE CONGRESS

The 3rd International Congress on Arsenic in the Environment with the theme of Arsenic in Geosphere and Human Diseases was held on May 17-21, 2010 in the International Conference Hall of National Cheng Kung University, Tainan, Taiwan.

The inter- and multi-disciplinary congress was attended by 225 experts to arsenic. The proceedings volume, which was unveiled during the opening ceremony of the congress by the president of the National Cheng Kung University, contains 289 published extended abstracts.

The oral and poster sessions were held on May 18-20 and the field trip was conducted on May 21st. It included seven topics which were presented in three parallel sessions:

I. Geology, Hydrology, and Hydrogeology of Arsenic
II. Ecological Effects: Arsenic in Soils, Plants, and Food Chain Cycle
III. Marine and Terrestrial Biota
IV. Health Effects on Humans: Epidemiology and Biomarkers
V. Toxicological Effects: Animal Models
VI. Assessment and Remediation of Arsenic Contaminations, Policy, and Protection
VII. Analytical Methods for Arsenic

A panel discussion concluded each session. A plenary panel discussion was offered on May 20th, in which the discussed topics involved in specific and general issues in geological, environmental, toxicological and health sciences were addressed.

SOCIAL EVENTS AND SIDE EVENTS

On May 18th, a concert performance was offered and on May 19, a congress dinner was used for discussion in between the participants and for organizing some side events such as the establishment of the Taiwan Chapter of the International Medical Geology Association (IMGA). During the congress dinner, the President of the IMGA, Prof. José Centeno, presented a certificate to Prof. Jiin-Shuh Jean, who is leading from now on the Taiwan Chapter of IMGA.

FIELD TRIP (May 21, 2010)
On May 21st, a field trip was provided to visit Chianan plain in southwestern Taiwan, where the Blackfoot disease cases occurred before 1990. The trip was guided by Prof. Jiin-Shuh Jean from NCKU and Prof. Ming-Kuo Lee from Auburn University, Auburn (Alabama, USA). There were 43 attendants to join this trip. The field trip comprised visits to the Taiwan Blackfoot Disease Museum in the township of Beimen, a site with research drillings into the arsenic-contaminated aquifer of Chianan plain near to Budai town, and Chukuo area in Chiayi County, where outcrops of black shales, which form a potential arsenic source were visited. A visit to Piyun Temple in the Guanzihling area offered an overview on Chianan plain, a methane gas vent and the Guanzihling hot spring.

For Further Information, please click here!!!


WEBSITE: http://www.as2010tainan.com.tw/

2010 GSA Annual Meeting
Date: 31 October – 3 November  
Location: Denver, Colorado USA

**NCKU Prof. Jiin-Shuh Jean Awarded with the Fellow of the Geological Society of America**

Prof. Jiin-Shuh Jean of Department of Earth Sciences at National Cheng Kung University (NCKU), Taiwan, was awarded Fellow of the Geological Society of America (GSA) for his excellent achievements in groundwater contaminant transportation and renovation.

Prof. Jiin-Shuh Jean was the only person receiving the honorary title in Taiwan, 2010, and it will be presented to him in the GSA Annual Meeting at Denver, Colorado, USA, from October 31st to November 3rd, 2010.

Prof. Jiin-Shuh Jean humbly expressed, “It was an honor for me to receive this title of Fellow by the Geological Society of America. I will continue to devote myself to geological research and expect to have better performance.”

The Fellow of the Geological Society of America is the highest title for the field of geology in United States. Organized by federal government, the Geological Society of America is the most prestigious society in the field of geology, having approximately 20,000 members. In 2010, it has elected 60 fellows. It’s understood that only one person in Taiwan is elected as GSA Fellow every two year.

Prof. Jiin-Shuh Jean is awarded mainly for his fruitful achievements and contributions on the research of hydrogeology, groundwater simulation, geological microorganisms, environmental microorganisms and environmental geology, papers published in renowned journals, as well as two ROC patents.

Prof. Jiin-Shuh Jean is the President of International Medical Geological Association, Taiwan Branch, and the organizer of The Third International Congress on Arsenic in the Environment. He’s also the Associate Editor for internationally renowned Journal of Hydrology and Hydrogeology Journal and the Co-Editor for Water Research in 2010.

Prof. Jean was the first to raise the concept of biomedical hydrogeology dealing with environmental epidemics (such as Enterovirus and Blackfoot Disease) in Hydrogeology Journal in 1999. He also brought up the association between rainfall rate and occurrence of enterovirus epidemic due to a contaminated well in Journal of Applied Microbiology in 2006.

His three year project, the geological microorganisms, chemical characteristics and health effects of arsenic-rich alluvial aquifers, from National Science Council, Taiwan, is expected to end in July, 2010, hoping to find the proper solutions for groundwater arsenic in Taiwan, Bangladesh and India.

Website:
http://conf.ncku.edu.tw/research/news/e/20100611/1.html
Professor Jiin-Shuh Jean at the 2010 GSA (Geological Society of America) Meeting, Colorado Convention Center, Denver, Colorado, USA

Professor Jiin-Shuh Jean received the GSA fellow honor from the president of GSA at the 2010 GSA Meeting

Professor Jiin-Shuh Jean (table) chaired the T78 topical session in the 2010 GSA Meeting
Professor Jiin-Shuh Jean research team members Dr. Sandeep Kar (left) and PhD student Chia-Chuan Liu (right) presented their papers in the T78 topical session

Professor Jiin-Shuh Jean (center) research team members presented their poster papers in the 2010 GSA Meeting

Professor Jiin-Shuh Jean joined the Hydro lunch in the 2010 GSA Meeting
# Upcoming Conference

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<th>Location</th>
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<tr>
<td>IMGA GOMED 2011</td>
<td>20-25 September 2011</td>
<td>Sheraton Nicolaus Hotel &amp; Conference Centre, Bari, Italy</td>
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<tr>
<td>ICOBTE 2011, 11th International Conference on the Biogeochemistry of Trace Elements</td>
<td>3 - 7 July 2011</td>
<td>Congress Center Florence - Italy</td>
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<tr>
<td>IUGG 2011 Melbourne</td>
<td>28 June - 7 July 2011</td>
<td>Melbourne Convention &amp; Exhibition Centre</td>
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<tr>
<td>2011 GSA Annual Meeting</td>
<td>9-12 October 2011</td>
<td>Minneapolis, Minnesota USA</td>
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**Website:**

**Important Publications**

**Presentation at the 2010 GSA Meeting:**

Colorado Convention Center: Room 107/109  
8:00 AM-12:00 PM, Monday, 1 November 2010

**View:**

**POTENTIAL ROLE OF ARSENIC REDUCTION [AS(V) TO AS(III)] BY OSBH2 (PSEUDOMONAS STUTZERI) AND OSBH5 (BACILLUS CEREUS) IN OIL-CONTAMINATED SITE—JEAN, Jiin-Shuh**


**POSSIBLE ROLE OF ORGANIC MATTER AND HUMIC SUBSTANCES IN BINDING AND MOBILITY OF ARSENIC IN GANGETIC AQUIFER, WEST BENGAL-INDIA—KAR, Sandeep**


**BIOGEOCHEMICAL INTERACTIONS AMONG THE ARSENIC, IRON, HUMIC SUBSTANCES, AND BACTERIA ACTIVITY IN MUD VOLCANOES IN SOUTHERN TAIWAN—LIU, Chia-Chuan**


**Publications by Taiwan Arsenic Research Group (TARG), International Medical Geology Association - Taiwan Chapter president (TIMGA) President – Jiin Shuh Jean**
Taiwan Crisis: A Showcase of Global Arsenic Problem

Publisher: CRC Press 、Bolkema

Authors: Jiin-Shuh Jean, Jochen Bundschuh, Chien-Jen CHEN, How-Ran GUO, Chen-Wuing LIU, Tsair-Fuh LIN, Yen-Hua CHEN

Year 2010

In the 1950s, the residents of the southwestern coastal areas of Taiwan suffered greatly from Blackfoot disease (BFD) due to the consumption of arsenic-contaminated groundwater. Groundwater with high levels of arsenic in southwestern and northeastern Taiwan received much attention. After arsenic-safe tap water was utilized for drinking instead of groundwater in the 1970s, BFD cases decreased greatly. After 1990, no new BFD cases were reported, and as a consequence, BFD problems disregarded. However, arsenic is still present in the groundwater.

This book will improve the knowledge and understanding of the occurrence and genesis of arsenic-rich groundwaters in Taiwan. It deals with constraints on the mobility of arsenic in groundwater, its uptake from soil and water by plants, arsenic-propagation through the food chain, human health impacts, and arsenic-removal technologies. Taiwan case experiences are described in this book and can be applied worldwide.

This book is a state-of-the-art overview of research on arsenic in Taiwan and is designed to:
- create interest in regions within Taiwan that are affected by the presence of arseniferous aquifers;
- draw attention from the international scientific community;
- increase awareness among researchers, administrators, policy makers, and company executives;
- improve the international cooperation on arsenic problems worldwide.
The congress "Arsenic in the Environment" offers an international, multi- and interdisciplinary discussion platform for arsenic research aimed at short-term solutions of problems with considerable social impact, rather than only focusing on cutting edge and breakthrough research in physical, chemical, toxicological, medical and other specific issues on arsenic on a broader environmental realm. The congress "Arsenic in the Environment" was first organized in Mexico City (As 2006) followed by As 2008 in Valencia, Spain. The Third International Congress As 2010 was held in Tainan, Taiwan from May 17-21, 2010 entitled: "Arsenic in Geosphere and Human Diseases". The session topics comprised:

1. Geology + hydrogeology of arsenic;
2. Ecological effects: Arsenic in soils, plants and food chain;
3. Marine + terrestrial biota;
4. Health effects on humans: Epidemiology + biomarkers;
5. Toxicological effects;
6. Assessment and remediation;
7. Analytical methods.

Hosting this congress in Taiwan was especially relevant, because the endemic Blackfoot Disease, related to the arsenic uptake from drinking water supplied by artesian wells, was discovered here half a century ago. Since then Taiwan has become an important region specializing in arsenic research. This volume presents the extended abstracts of the congress and will give the latest state of the art knowledge based on current research performed by the global scientific community.
Referred Papers (*corresponding author)

(A) Journals (*corresponding author)


(B) Conference papers


12. **Jean, J.-S.*,** A.H.M.S. Reza, 2008. Distribution of arsenic in core sediments as well as groundwater in arsenic hot spot area in Bangladesh. Oral presentation to 2008 GSA meeting (5-9 October), Houston, USA.


(C) Books and reports


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