The 16th International Taurine Meeting
“Taurine for the Future Healthcare”

September 2-5, 2007
Shimoda Central Hotel
SHIMODA, JAPAN

Edited by Junichi Azuma, Takashi Ito, Haruaki Nobori
Cover page: Mt. Fuji and Black Ship
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Sponsors
Taisho Pharmaceutical Co., LTD
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<table>
<thead>
<tr>
<th>Time</th>
<th>Sunday Sep 2</th>
<th>Monday Sep 3</th>
<th>Tuesday Sep 4</th>
<th>Wednesday Sep 5</th>
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</thead>
<tbody>
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<td>Stephen W Schaffer</td>
<td>Yukio Yamori</td>
<td>Russell W Chesney</td>
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- Lecture I: Stephen W Schaffer
- Lecture II: Yukio Yamori
- Lecture III: Russell W Chesney
- Session I: Neuroprotective Effects 1
- Session V: Cardiovascular Effects 1
- Session X: Diabetes and Nutrition 1
- Session II: Neuroprotective Effects 2
- Session VI: Cardiovascular Effects 2
- Session III: Renal Effects
- Session VI I: Inflammatory Effects
- Session IV: Taurine Movement
- Session X: Diabetes and Nutrition 2
- Closing Remarks
- Poster Session
- 13:00-Excursion
- Spa time
- Welcome party
- Dinner
- Banquet dinner
Oral Session

Monday September 3

9:00 AM-9:40 AM
Lecture 1  Chairperson:  Junichi Azuma

Potentiation of angiotensin II-mediated mitochondrial damage by taurine deficiency
Stephen W. Schaffer, University of South Alabama, USA

9:40 AM-10:20 AM
Session I  Neuroprotective Effects of Taurine: Part 1
Chairperson:  Simo S Oja

9:40-  Mechanism of neuroprotective function of taurine
Jang-Yen Wu, Florida Atlantic University, USA

10:00-  Taurine and GES differentially affect protein expression and phosphorylation in rat C6 glioma cells
Hemanta K. Sarkar, BB Tech, USA

10:20 AM-10:40 AM  Coffee Break

10:40 AM-11:10 AM
Session II  Neuroprotective Effects of Taurine: Part 2
Chairperson:  Jang-Yen Wu

10:40-  Taurine protects immature cerebellar granular neurons against acute alcohol administration
Simo S Oja, University of Tampere, Finland

11:00-  Taurine conjugation of ganglioside GM2 In Tay-Sachs disease
Yu-Teh Li, Tulane University School of Medicine, USA

11:20-  Taurine improves cognitive functions in a mouse model of Fragile X Syndrome
Abdeslem El Idrissi, College of Staten Island, USA

11:40 AM – 1:00 PM  Lunch
1:00 PM – 3:00 PM  Poster Session 1  (P1-01 – P1-19)

3:00 PM-4:00 PM

Session III  Renal Effects of Taurine
Chairperson:  Stephen W Schaffer

3:00- Role of TauT in protecting against cisplatin-induced acute renal injury – a study using a TauT transgenic mouse model
Russell W Chesney, The University of Tennessee Health Science Center, USA

3:20- Mechanisms of over-expression of TauT in protecting against cisplatin-induced acute renal injury
Xiao Bin Han, The University of Tennessee Health Science Center, USA

3:40- Perinatal taurine status influences arterial pressure control and renal function in the adult, female offspring
Sanya Roysommuti, Khon Kaen University, Thailand

4:00 PM-4:20 PM  Coffee Break

4:20 PM-5:00 PM

Session IV  Taurine Movement
Chairperson:  Fili Fazzino

4:20- Diversity and precision in taurine content visualized in a metabolomic atlas of the C57B6/J mouse
Robert E Marc, University of Utah, USA

4:40- Cyclosporin A induced inhibition of taurine transport is reversible, and is due to altered surface abundance of the taurine transporter
Hemanta K. Sarkar, BB Tech, USA

6:00 PM- Dinner
Tuesday  September 4

8:30 AM-9:10 AM
Lecture 2  Chairperson: Stephen W Schaffer

Taurine as the Nutritional Factor for the Longevity of the Japanese Revealed by a World-wide Epidemiological Survey
Yukio Yamori, International Center for Research on Primary Prevention of Cardiovascular Diseases WHO Expert Advisory Panel, Japan

9:10 AM-10:10 AM
Session V  Cardiovascular Effects of Taurine: Part 1
Chairperson: Diana Conte Camerino

9:10- Taurine myocardial protective effects greater at reperfusion
Tadaomi A Miyamoto, Kokura Memorial Hospital, Japan

9:30- Pharmacological actions of taurine on rat aortic smooth muscle
Seiichirou Nishida, Nara Medical University, Japan

9:50- Cardiac and skeletal muscle abnormality in taurine transporter-knockout mice
Takashi Ito, Osaka University, Japan

10:10 AM-10:30 AM  Coffee Break

10:30 AM-11:30 AM
Session VI  Cardiovascular Effects of Taurine: Part 2
Chairperson: Hiroyasu Satoh

10:30- Effects of taurine on cardiovascular and autonomic nerve function in cold exposure rats
Masayoshi Kuwahara, University of Tokyo, Japan

10:50- Taurine suppress pressure response through the inhibition of sympathetic nerve activity and improves impaired baro-reflex sensitivity in spontaneous hypertensive rats
Takuzo Hano, Wakayama Medical University, Japan

11:10- Tool from traditional medicines is useful for health-medication: Bezoar Bovis and taurine
Kyoko Takahashi, Osaka University, Japan
11:30 AM – 1:00 PM  Lunch

1:00 PM – 3:00 PM  Poster Session 1  (P2-1 – P2-21)

3:00 PM–4:20 PM

**Session VII  Taurine for Inflammation System**

**Chairperson:**  Byong-Kak Kim

3:00-  **Taurine haloamines  (TauCl, TauBr) and heme oxygenase-1 (HO-1) cooperate in the regulation of inflammatory response**  
Janusz Marcinkiewicz, Jagiellonian University Medical College, Kraków, Poland

3:20-  **Regulation of reactive oxygen/nitrogen species by taurine chloramine in inflammatory cells**  
Chaekyun Kim, Inha University, Korea

3:40-  **Taurine chloramine: a possible oxidant reservoir**  
Tetsuya Ogino, Okayama University, Japan

4:00-  **Taurine chloramine differentially inhibits matrix metalloproteinase 1 and 13 synthesis in interleukin-1β-stimulated fibroblast-like synoviocytes**  
Kyoung Soo Kim, Kyung Hee University, Korea

4:20 PM-  Spa Time

6:00 PM-  Banquet Dinner
Wednesday  September 5

9:00 AM-9:40 AM  Lecture 3  Chairperson:  Junichi Azuma

Does taurine deficiency cause metabolic bone disease and rickets in polar bear cubs raised in captivity?
Russell Chesney, The University of Tennessee Health Science Center, USA

9:40 AM-10:20 AM  Session IX  Diabetes and Nutrition: Part 1  Chairperson:  Russell Chesney

9:40-  Taurine feeding inhibits bile acid absorption from the ileum in rats fed a high cholesterol and high fat diet
Naomichi Nishimura, Nayoro City University, Japan

10:00-  The effects of hypotaurine, taurine, and taurine homologs on erythrocyte morphology, membrane fluidity and cytoskeletal spectrin alterations due to diabetes, alcoholism and diabetes-alcoholism in the rat
Cesar Lau-Cam, St. John's University, USA

10:20 AM-10:40 AM  Coffee Break

10:40 AM-11:40 AM  Session VI  Diabetes and Nutrition: Part 2  Chairperson:  Ha Won Kim

10:40-  Dietary taurine attenuates dextran sulfate sodium-induced experimental colitis in mice
Makoto Shimizu, University of Tokyo, Japan

11:00-  Taurine and analogues: Nutraceuticals and functional food components
Ramesh Gupta, Nagaland University, India

11:20 AM   Closing Remarks  Junichi Azuma, Osaka University, Japan

12:00PM-  Lunch
1:00 PM-  Excursion
P1-01  Evaluation of the preventive effect of fermented milk supplement containing tomato (Lycopersicon Esculentum) and taurine on bone loss in ovariectomized rats
Kyung Ja CHANG, Inha University, Korea

P1-02  The effects of dietary taurine supplementation on bone mineral density in OVX rats
Mi Ja Choi, Keimyung University, Korea

P1-03  Effects of dietary taurine supplementation on bone mineral density in OVX rats fed calcium deficient diet
Mi Ja Choi, Keimyung University, Korea

P1-04  Therapeutic potential of taurine in hypogravity-induced skeletal muscle disuse
Diana Conte Camerino, University of Bari, Italy

P1-05  Effects of taurine administration on exercise
Yoshihisa Yatabe, Moriya Daiichi Hospital, Japan

P1-06  Knocking out the taurine transporter gene results in decreased exercise capacity and skeletal muscle atrophy in mice
Mika Takai, Osaka University, Japan

P1-07  Inhibition of apoptosis by taurine in macrophages treated with sodium nitroprusside
Ha Won Kim, University of Seoul, Korea

P1-08  Glucose uptake and glucose transporter 1 expression are inhibited by taurine chloramine in RAW 264.7 macrophages
Chaekyun Kim, Inha University, Korea

P1-09  Effect of taurine on antioxidant enzyme system in B16F10 mouse melanoma cells
An Keun Kim, Sookmyung Women's University, Korea

P1-10  Taurine and ions: Some effects of interrelations
Medeya Akhalaya, M.V. Lomonosov Moscow State University, Russia
Characterization of taurine and its derivatives as potential molecular chaperones under ER stress induced in Xenopus laevis oocytes  
Dong Hee Lee, Yonsei University, Korea

Taurine reduces ER stress during adipogenic differentiation in 3T3 L1 cell  
Dong Hee Lee, Yonsei University, Korea

Taurine transporter in lymphocytes of patients with major depression treated with venlafaxine and venlafaxine plus psychotherapy  
Fili Fazzino, Instituto Venezolano de Investigaciones Científicas, Venezuela

Effects of taurine on anxiolytic and locomotor behavior of mice  
Abdeslem El Idrissi, College of Staten Island, USA

Functional implications of taurine in aging  
Abdeslem El Idrissi, College of Staten Island, USA

Localization of taurine transporter, taurine and zinc in rat and goldfish retina  
Sonia Nusetti, Instituto Venezolano de Investigaciones Científicas, Venezuela

Effect of medium osmolarity on neuritic outgrowth from goldfish retinal explants  
Lisbeth Cubillan, Instituto Venezolano de Investigaciones Científicas, Venezuela

The change of taurine transport by calcium channel blockers and calcium ion in the osteoblast  
Young-Sook Kang, Sookmyung Women’s University, Korea

Involvement of transcriptional factor TonEBP in the regulation of taurine transporter gene expression in cardiac myocyte  
Takashi Ito, Osaka University, Japan
Tuesday September 4  (1:00 PM- 3:00 PM)

P2-01  Evaluation of taurine as an osmotic agent for peritoneal dialysis solution
Hideki Nishimura, Tokyo Women’s Medical University, Japan

P2-02  Effect of taurine on hypertension in rat
Gaofeng Wu, Shen Yang Agricultural University, China

P2-03  Decreased plasma taurine and fMLP-stimulated chemiluminescence by neutrophils in patients with hemorrhagic stroke
Yukio Seki, Chubu Rosai Hospital, Japan

P2-04  Attenuating action of taurine on the cardiovascular alterations caused by pyridoxal-isoproterenol, a vitamin-drug interaction with cardiopathologic significance
Cesar Lau-Cam, St. John’s University, USA

P2-05  Vascular pharmacology of taurine on human arterial stiffness and wave reflection
Jangmi Kang, Nara Medical University, Japan

P2-06  Beneficial effect of taurine treatment against doxorubicin-induced cardiac toxicity in mice
Takashi Ito, Osaka University, Japan

P2-07  Perinatal taurine status-predisposed arterial pressure control of the adult offspring is gender different
Atcharaporn Thaeomor, Khon Kaen University, Thailand

P2-08  Effect of PTP1B inhibitors and taurine on blood lipid profiles in adolescence obesity
Kyung Ja Chang, Inha University, Korea

P2-09  Effect of taurine supplementation on plasma homocysteine level of the middle-aged Korean women
CS Ahn, Ansan College, Korea

P2-10  The effects of taurine, taurine homologs and hypotaurine on cell membrane and antioxidant system alterations caused by type-2 diabetes in rat erythrocytes
Cesar Lau-Cam, St. John’s University, USA
P2-11  **Taurine supplementation and pancreatic remodeling**  
Abdeslem El Idrissi, College of Staten Island, USA

P2-12  **Dietary taurine intake, nutrient intakes, anthropometric data and body composition by abdominal obesity in Korean college students**  
Kyung Ja Chang, Inha University, Korea

P2-13  **Protection effect of taurine on nitrosative and oxidative stress in the stomach of rat with water immersion restraint stress**  
Ning Ma, University of Tokushima, Japan

P2-14  **Effect of taurine on alcoholic liver disease in rat**  
Gaofeng Wu, Shen Yang Agricultural University, China

P2-15  **The preventive effect of taurine on hepatic damages in liver disease model and hepatic stellate cells**  
Teruo Miyazaki, The George Washington University, USA

P2-16  **Taurine depletion by β-alanine inhibits induction of hepatotoxicity in mice treated with carbon tetrachloride acutely**  
Sun J Kim, Seoul National University, Korea

P2-17  **Taurine normalizes blood levels and urinary losses of selenium, manganese, and chromium in rats with chronic alcohol consumption**  
Taesun Park, Yonsei University, Korea

P2-18  **The effect of dietary taurine supplementation on plasma, liver lipid concentration in OVX rats**  
Mi Ja Choi, Keimyung University, Korea

P2-19  **Effects of dietary taurine supplementation on lipids in OVX rats fed calcium deficient diet**  
Mi Ja Choi, Keimyung University, Korea

P2-20  **Dietary taurine intake and life stress in Korean college students**  
Kyung Ja Chang, Inha University, Korea

P2-21  **Taurine as a marker of food education for traditional seafood intake in Japan and China**  
Mari Mori, Mukogawa Women’s University, Japan