

36TH
INTERNATIONAL CONGRESS OF
PHYSIOLOGICAL SCIENCES (IUPS2009)
3RD CIRCULAR

Function of Life: Elements and Integration

July 27th - August 1st,
2009 in KYOTO, JAPAN



President:
Yasushi Miyashita, Ph.D.
(The University of Tokyo)

XXXVI**International Congress of
Physiological Sciences 2009,
Kyoto (Japan)****General Information****CONGRESS PERIOD:** 27th (Mon.) July - 1st (Sat.) August 2009**VENUE:** Kyoto International Conference Center (ICC Kyoto)
Takaragaike, Sakyo-ku, Kyoto 606-0001, Japan**WEBSITE:** <http://www.iups2009.com/>**OFFICIAL LANGUAGE:** English**Schedule of Key Dates****Abstract Submission** 1 September – 10 December 2008**Registration for Participation** Pre-registration**Early:** 1 September 2008 – 17 April 2009**Late:** 18 April 2009 – 30 June 2009**Application for Travel Grants** 1 September – 10 December 2008**Deadline for Satellite Symposia Submission**

10 December 2008

Online Booking for Accommodation Starts on 1 September 2008 -

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[IUPS President's Lecture]:

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[Ernst Knobil Lecture]:

Bruce S. McEwen (Rockefeller University, USA)

[T. P. Feng Lecture]:

Sten Grillner (Karolinska Institute, SWEDEN)

[Knut Schmidt-Nielsen Lecture]:

Brian M. Barnes (University of Alaska, Fairbanks, USA)

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Ramón Latorre (University of Valparaiso, CHILE)

Michel Lazdunski (CNRS, FRANCE)

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Shigetada Nakanishi (Osaka Bioscience Institute, JAPAN)

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[Congress Lecture]:

Masao Ito (RIKEN Brain Science Institute, JAPAN)

[Kyoto Memorial Lecture]:

Susumu Tonegawa (Massachusetts Institute of Technology, USA)

[Hagiwara Lecture]:

Albert J. Hudspeth (Rockefeller University, USA)

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XXXVI

*International Congress of Physiological
Sciences 2009, Kyoto (Japan)*

27 July to 1 August 2009

Invitation & Call for Papers

On behalf of the organizing committee, it is my great pleasure and honor to extend this invitation to take part in the coming XXXVIth Congress of the International Union of Physiological Sciences (IUPS), to be held in the beautiful and historic city of Kyoto, Japan, from July 27 to August 1, 2009.

We believe we are now in the midst of developments leading to a new era in physiological research, fueled by the recent revolutionary progress in the biological sciences. We have witnessed the sequencing of the human genome, dramatic progress in computer technology and bioinformatics, and the determination of the structures of a variety of proteins including membrane receptors and channels.

The congress will provide an excellent opportunity to review these rapid advances. Many distinguished speakers from all parts of the world will be invited to bring us all up-to-date on recent developments, both in basic and clinical research, through 28 Invited Lectures (7 Named Lectures, 17 Special Lectures and 4 PSJ Named Lectures), and a wide variety of symposia (55 regular symposia, 16 whole-day symposia, and 5 PSJ symposia), together consisting of more than 150 proposals that cover almost all academic fields related to the physiological sciences.

There will also be opportunities for young scientists to make their work known to a wider audience through Poster Sessions and to discuss their scientific interests with colleagues from many different countries. For this purpose, we are ready to support and encourage young investigators, through Travel Grants, to participate in IUPS 2009 Kyoto. Please look at our website for details of the funding and the application procedure.

We are ready to invite you and calling now for papers in the Congress under the title of **"Function of Life: Elements and Integration."**

Information technology has increased the volume and speed of information flow astronomically. However, it is still no substitute for face-to-face communication. We hope you will be able to join us to share in the exciting scientific dialogue and enjoyable social exchange that will take place in Kyoto.



YASUSHI MIYASHITA
President

36th IUPS International Congress, 2009

Professor, Department of Physiology, The University of Tokyo, School of Medicine

Organization

36th IUPS Congress Organizing Committee Japan

The late Setsuro Ebashi (Honorary Chairperson)	Toshinori Hongo (Member)
Masao Ito (Honorary Chairperson)	Ken-ichi Honma (Member)
Yasushi Miyashita (Chairperson)	Katsumasa Kawahara (Member)
Yoshihisa Kurachi (Vice Chairperson)	Yoshio Maruyama (Member)
Satoshi Kurihara (Vice Chairperson)	Osamu Matsuo (Member)
Yasunobu Okada (Vice Chairperson)	Katsuhiko Mikoshiba (Member)
Akimichi Kaneko (Advisory Board)	Harunori Ohmori (Member)
Ikuo Homma (Inspector)	Hideyuki Okano (Member)
Shunichi Miyazaki (Inspector)	Taketoshi Ono (Member)
	Tadaharu Tsumoto (Member)

IUPS Council

Akimichi Kaneko (President)	Antonio Campos de Carvalho (Council)
Irene Schulz (First Vice President)	Yung E. Earm (Council)
Pierre Magistretti (Second Vice President)	Cecilia Hidalgo (Council)
Ole Petersen (Secretary General)	A.D.C. Macknight (Council)
Malcom S. Gordon (Treasurer)	David Oyebola (Council)
	Quentin Pittman (Council)
	Daniel Ricquier (Council)
	Ann Sefton (Council)
	Tai Yao (Council)

86th Annual Meeting of Physiological Society of Japan (PSJ)

Yoshinori Marunaka (Chairperson of 86th PSJ Meeting in Kyoto)

The 86th Annual Meeting of PSJ joins the 36th IUPS Kyoto Congress in hosting the meeting.

Others supporting the 36th IUPS Kyoto Congress

The 36th IUPS Congress in Kyoto 2009 would be not possible without invaluable financial contributions by the members of the Physiological Society of Japan, and the various support of local committees, scientific societies and companies in Japan.

Call for Abstracts



Participants wishing to make scientific contributions are invited to submit abstracts via our website.

Style: Poster presentations (plus some oral presentations in symposia and workshops)

Submission period: 1 September to 10 December 2008 via the website

Further details: <http://www.iups2009.com/>

Notes for attention

- (1) The committees of Research Ethics and Program will check all submitted abstracts, and unsuitable ones to the IUPS2009 might be rejected. In case of rejection, the result will be informed to the presenting author by an email in the middle of February in 2009.
- (2) In some of the Regular Symposia, the organizers will pick one or two oral presentations from the submitted abstracts in addition to the already decided ones (<http://www.iups2009.com/0220/index.html>). Those who wish to give an oral presentation in a certain Regular Symposium should clearly indicate upon registration the symposium number they wish to join. The names of the organizers and speakers and their presentation titles are shown in the program on the web.
- (3) In all Workshops, all oral presentations will be picked up from the submitted abstracts by the organizers. Those who wish to give an oral presentation in a certain Workshop should clearly indicate upon registration the Workshop number they wish to join. The titles, contents and the organizer names are shown in the program on the web (<http://www.iups2009.com/0220/index.html>)
- (4) The results of selection in (2) and (3) will be informed by an email to the presenting author in the middle of February in 2009. Presentations which were not selected as oral presentations will be assigned as poster presentation.
- (5) Those who wish to apply to the Travel Grant should indicate it clearly when they register their presentations. The Travel Grant committee will select awardees and the results will be informed in the middle of February in 2009.
- (6) In case there are problems (e.g. incomplete, duplicated) in the submitted abstract, the IUPS2009 office will contact the presenting author by email requesting for prompt clarification.

Synchronization with Registration and Travel Grants

- 1) Submission may be cancelled if Registration is not completed by 17 April 2009
- 2) Those wishing to have Travel Grants must submit an abstract as a paper-presenting author (see also Travel Grants).

Registration



Early: 1 September 2008 – 17 April 2009

Late: 18 April 2009 – 30 June 2009

On-line-registration can be made through the Congress Website

<http://www.iups2009.com/>

Status	Early Registration 1 Sep. 2008 -17 Apr. 2009	Late Registration 18 Apr. - 30 Jun. 2009	On-site
Regular Participant	35,000 yen	45,000 yen	55,000 yen
Student ^{*1}	10,000 yen	10,000 yen	10,000 yen
Accompanying Person ^{*2}	10,000 yen	10,000 yen	10,000 yen
Congress Dinner ^{*3*4}	7,000 yen	7,000 yen	7,000 yen

*1) Student includes Graduate Student. Student participant is required to send a copy of student ID/an official letter that proves the status, to the Registration Desk by fax or post (see p.23).

*2) Accompanying Person must be a spouse or a family member of the registered delegate. Boys and girls aged 15 and under are regarded Accompanying Person without registration. Authors can not be registered as Accompanying Person.

*3) Boys and girls aged 15 and under can attend Congress Dinner without Congress Dinner ticket, when they are accompanied by Regular Participant.

*4) The numbers of tickets is limited.

Registration Fee for Regular Participant and Student includes:

1. Admission to scientific programs of the Congress
2. Admission to exhibition of the Congress
3. Documentation including abstract CD-ROM
4. Opening Ceremony, Welcome Reception and Closing Ceremony

Registration fee for Accompanying Person includes:

1. Opening Ceremony, Welcome Reception and Closing Ceremony

*Accompanying Person will not be admitted to scientific programs other than poster presentations.

Congress Dinner : Evening, 31 July (5th day of the Congress)

Travel Grants



The aim of the Travel Grants is to encourage young investigators who will be 45 years or under on 1 August 2009, to participate in IUPS 2009 Kyoto.

Support amounts

East Asia (China, Korea and Taiwan):	80,000 JPY
Other Asia-Oceania countries:	100,000 JPY
Europe and North America:	120,000 JPY
Africa and Central/South America:	150,000 JPY

Application period: 1 September – 10 December 2008

Applicants' Abstract Submission and Registration

Applicants must submit an abstract as a **paper-presenting author** during the period,

1 September to 10 December 2008, and
finish the Registration via our website during the period of *the Early Registration*,
1 September 2008 to 17 April 2009.

The Travel Grant Committee of IUPS 2009 will review the applicants and make selections based on the scientific quality of the submitted abstract.

Travel Grant Committee Chairperson: Noriyuki Koibuchi (Gunma University Graduate School of Medicine)

For further information, please visit our website.





XXXVI

*International Congress of Physiological
Sciences 2009, Kyoto (Japan)*

27 July to 1 August 2009

Lectures



Named Lectures

Wallace Fenn Lecture

Prof. Erwin Neher

(Max Planck Institute for Biophysical Chemistry, Germany)

Tentative Title of Lecture:

“Biophysical dissection of neurotransmitter release”



IUPS President’s Lecture

Prof. Akimichi Kaneko

(Kio University, Japan)

Tentative Title of Lecture:

“Neural mechanism of lateral inhibition in vision: Proton-mediated feedback from horizontal cells to cones in the retina”



Ernest Knobil Lecture

Prof. Bruce S. McEwen

(Rockefeller University, U.S.A.)

“Sex and stress hormone actions above the hypothalamus: A different view of neuroendocrinology”



T. P. Feng Lecture

Prof. Sten Grillner

(Nobel Institute, Karolinska Institute, Sweden)

“The computational logic of networks in motion - from ion channels to behaviour”



Knut Schmidt-Nielsen Lecture

Prof. Brian M. Barnes

(University of Alaska Fairbanks, U.S.A.)

Tentative Title of Lecture:

“Overwintering adaptations of animals in a changing Arctic”



Robert Pitts Lecture

Prof. René Bindels

(Radboud University Nijmegen Medical Centre, the Netherlands)

Tentative Title of Lecture:

“A TR(i)P through epithelial calcium and magnesium channels”



August Krogh Lecture

Prof. Tobias Wang

(University of Aarhus, Denmark)

Tentative Title of Lecture:

“The evolution of high blood pressures in vertebrates”



Special Lectures



Prof. Frances M. Ashcroft

(University of Oxford, U.K.)

Tentative Title of Lecture:

“ATP-sensitive potassium channels and diabetes: From molecule to malady”



Prof. Stefan Bröer

(Australian National University, Australia)

Tentative Title of Lecture:

“Inherited disorders of neutral amino acid transport”



Prof. Clara Franzini-Armstrong

(University of Pennsylvania School of Medicine, U.S.A.)

Tentative Title of Lecture:

“The macromolecular complex of calcium release units in cardiac and skeletal muscle: Structure function correlations”



Prof. Jeffrey M. Friedman

(Rockefeller University, U.S.A.)

Tentative Title of Lecture:

“Leptin and the homeostatic control of body weight”



Prof. Yoshinori Fujiyoshi

(Kyoto University, Japan)

Tentative Title of Lecture:

“Structural physiology of multifunctional channels”



Prof. Lily Y. Jan

(University of California, San Francisco, U.S.A.)

Tentative Title of Lecture:

“Potassium channel function and regulation”



Prof. Kenji Kangawa

(National Cardiovascular Center Research Institute, Japan)

Tentative Title of Lecture:

“Ghrelin: Discovery and physiological significance”



Prof. Ramón Latorre

(University of Valparaíso, Chile)

Tentative Title of Lecture:

“Transplantable sites confer temperature and PIP2 sensitivity to thermo transient receptor potential (TRP) channels”



Prof. Michel Lazdunski (CNRS, France)

Tentative Title of Lecture:

“Sensing with ionic channels”



Prof. Atsushi Miyawaki

(RIKEN Brain Science Institute, Japan)

Tentative Title of Lecture:

“New fluorescent probes and new perspectives in bioscience”



Prof. Shigetada Nakanishi

(Osaka Bioscience Institute, Japan)

Tentative Title of Lecture:

“The neural network: Integration and regulation of synaptic transmission”



Prof. Denis Noble (University of Oxford, U.K.)

Tentative Title of Lecture:

“Principles of systems biology and the future of physiology”



Prof. Fernando Nottebohm

(Rockefeller University, U.S.A.)

Tentative Title of Lecture:

“Neuronal replacement in adult brain”



Prof. Mu-ming Poo

(University of California Berkeley, U.S.A/China)

Tentative Title of Lecture:

“Spike timing dependent plasticity of neural circuits”



Prof. Nadia Rosenthal *(European Molecular Biology Laboratory Monterotondo Outstation, Italy)*

Tentative Title of Lecture:

“Enhancing mammalian regeneration”



Prof. Masatoshi Takeichi

(RIKEN Kobe Institute and Center for Developmental Biology, Japan)

Tentative Title of Lecture:

“Cadherin and catenins in neural morphogenesis and wiring”



Prof. Joseph S. Takahashi

(Northwestern University, U.S.A.)

Tentative Title of Lecture:

“Genetic analysis of circadian clocks in mammals”



PSJ Named Lectures



[Congress Lecture]

Prof. Masao Ito

(RIKEN Brain Science Institute, Japan)

Tentative Title of Lecture:

“Toward complex biological functions - a view from cerebellar physiology”



[Kyoto Memorial Lecture]

Prof. Susumu Tonegawa *(MIT, USA)*

Tentative Title of Lecture:

“Hippocampal circuits for episodic and spatial memories”



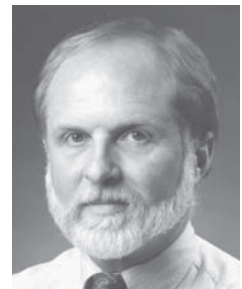
[Hagiwara Lecture]

Prof. Albert J. Hudspeth

(Rockefeller University, U.S.A.)

Tentative Title of Lecture:

“Making an effort to listen: Mechanical amplification by myosin molecules and ion channels in hair cells of the inner ear”



[Tawara Lecture]

Prof. Yoram Rudy

(Washington University, U.S.A.)

Tentative Title of Lecture:

“Cardiac excitation and arrhythmias in the human heart: Insights from noninvasive ECG imaging (ECGI)”





Function of Life: Elements and Integration

Lectures



7 Named, 17 Special and 4 PSJ Named Lectures

Regular Symposia



55 symposia in various fields

Whole-day Symposia and PSJ Symposia



16 Whole-day symposia and 5 PSJ (Physiological Society of Japan) symposia

Workshops and Tutorials



5 Workshops and 3 Tutorials

Luncheon Seminars and Meet-the-Lecturer Sessions



In preparation

We would like to express our cordial gratitude to all the scientists who have kindly accepted our invitation and the organizers of symposia, workshops and tutorials for their cooperation.



Program Overview

	2009.7.28 TUE					2009.7.29 WED					2009	
	8:50-9:50	10:00-12:30		14:00-16:30	17:00 -	8:50-9:50	10:00-12:30		14:00-16:30	17:00 -	8:50-9:50	10:00-12:30
	Welcome Reception after lecture on the Venue garden 18:30 -					Exhibition of Asian culture after congress lecture in Room A 18:30 -						
Main Hall	Denis Noble	WD-IX-15		WD-IX-15	Wallace Fenn Lecture	Kyoto memorial Lecture	WD-IX-16		WD-IX-16	Congress Lecture		
Room A	Mu-Ming Poo	RS IV-15		RS LB-51		President's Lecture	WD-IV-7		WD-IV-7	Exhibition 18:30~	Joseph S. Takahashi	WD-VII-10
Room B-1		WD-VIII-13		WD-VIII-13		Clara Franzini-Armstrong	WD-I-1		WD-I-1		Yoshinori Fujiyoshi	WD-V-9
Room B-2	Stefan Brörer	RS V-26		RS V-29			PSJ V-3		RS II-5			RS V-28
Room C-1		PSJ II-1		RS II-10			RS V-22		RS V-23			RS II-8
Room C-2		PSJ VI-4		RS II-7			RS IV-19		RS VI-37			RS VI-35
Room D	Frances M. Ashcroft	RS A-50		RS IV-20		Kenji Kangawa	RS IV-17		PSJ IV-2		TP Feng Lecture	RS IV-21
Room E	Atsushi Miyawaki	PSJ VI-5		RS VI-38		Hagiwara Lecture	RS IV-18		RS A-47		Tawara Lecture	WD-II-3
Room F		RS V-25		RS V-24			KOJACH		KOJACH			RS I-2
Room G		RS I-1		RS I-3			TU-3		WS-3			RS III-12
Room H		PSJ VII-6		RS VII-39			RS Ph-45		TU-1			RS Ed-43
Annex												

Notes

1. Details are shown on the website (<http://www.iups2009.com/>).
2. Opening ceremony is scheduled from 14 PM on July 27 (Mon) in the Main Hall.
3. Regular Symposia and Workshops which will pick up presentation(s) from general abstracts are colored in yellow.

IUPS2009 (Kyoto) Whole Congress Schedule

.7.30 THU			2009.7.31 FRI					2009.8.1 SAT				
	14:00-16:30	17:00 -	8:50-9:50	10:00-12:30		14:00-16:30	17:00 -	8:50-9:50	10:00-12:30		14:00-16:30	17:00 -
			Congress dinner after lecture					Closing ceremony in Room A 17:30 -				
	WD-VII-10	Shigetada Nakanishi	Fernando Nottebohm	WD-VIII-14		WD-VIII-14	Masatoshi Takeichi	Michel Lazdunski	WD-VII-11		WD-VII-11	Closing ceremony
	WD-V-9		Jeffrey M. Friedman	WD-II-5		WD-II-5		Ernest Knobil Lecture	WD-III-6		WD-III-6	
	RS VIII-42	Nadia Rosenthal		WD-II-4		WD-II-4			WD-IV-8		WD-IV-8	
	RS VI-31			WD-I-2		WD-I-2			RS N-54		RS IV-16	
	RS LB-52			RS V-30		RS IV-14			RS A-49		RS VI-36	
	RS N-53		Robert Pitts Lecture	RS VI-33		RS A-48	Ramón Latorre	Knut Schmidt-Nielsen Lecture	WD-VII-12		WD-VII-12	
	WD-II-3		Lily Y. Jan	RS VI-32		RS VI-34		August Krogh Lecture	RS II-6		RS V-27	
	RS II-9			RS III-11		RS VII-40			WS-2		TU-2	
	RS I-4			WS-4		WS-1			RS III-13		WS-5	
Ed-Poster	RS G-55			RS Ed-44	Ed-Poster	RS VII-41			RS Et-46			
											Lectures for citizens	



Notice for Satellite Symposia

(Deadline for Submission – 10 December 2008)

Requirements

1. Satellite Symposia must be held during the week before or week after IUPS2009 Congress; however, NO Satellite Symposia must be held during IUPS2009 Congress (27 July to 1 August 2009)
2. Venues for the Satellite Symposia have to be within 1,200km from Kyoto, Japan.
3. All the Organizers and Speakers of Satellite Symposia have to pay Registration Fee for IUPS2009.
4. Any proposed Satellite Symposia have to be approved by International Scientific Program Committee.



Others



Day Care Center for Kids

A Day Care Room for children (under 10 years old) will be provided at the same venue at limited expense (300 yen /h per a child) during the Congress. In addition, a kids' Room for elder children (under 15 years old) will also be opened. Congress participants who expect the service are advised to register via our website.

Entertainment

We will entertain all participants joining us at the Congress. Event information will be repeatedly updated on our website.





Congress Venue

The Scientific Sessions will be held at

Kyoto International Conference Center (ICC Kyoto).

<http://www.icckyo.or.jp/en/service/index.html>

The ICC Kyoto is a state-of-the-art meeting and exhibition complex located at the foot of Mt. Hiei, a Buddhist's sacred mountain. It is a 20 minutes ride by subway from Kyoto Station.

The ICC Kyoto is surrounded by natural beauty reflecting myriad faces of Kyoto's four seasons and its facilities offer a comfortable space to conduct the Congress.





We all hope you will have a fruitful experience with other participants during IUPS2009, Kyoto, Japan.

Contact Address:

Secretariat of IUPS 2009

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www.iups2009.com

*Just try to imagine what is waiting
for us to discover.*



*Join us at Kyoto
2009 Summer*

