

Nishinomiya-Yukawa International & Interdisciplinary Symposium 2007

What is Life?

*The Next 100 Years of
Yukawa's Dream*

October

15 (Mon) ~ 20 (Sat)

2007

CO-OP Inn Kyoto
Conference Hall

Invited Speakers

Robert Arking (Wayne State Univ.)
Carl Becker (Kyoto Univ.)
David Deamer (U.C.Santa Cruz)
John Evans (England)
Luciano Floridi (Univ. of Oxford)
Susumu Goto (Kyoto Univ.)
Nicholas Humphrey (London Univ.)
Masami Ishido (Nat. Inst. Env.)
Akio Kanai (Keio Univ.)
Seunghwan Kim (APCTP)
Hajime Kimata (Moriguchi-Keijinkai Hospital)
Saburo Matsui (Kyoto Univ.)
Tetsuro Matsuzawa (Kyoto Univ.)
Nobuhiro Minaka (NIAES)
Kiyoshi Miyagawa (Univ. of Tokyo)
Yoshihiro Miyake (Tokyo Inst. Tech.)
Alex Mogilner (U.C.Davis)
Aage R. Møller (Univ. of Texas, Dallas)
Vidyanand Nanjundiah (IISc, Bangalore)
Yoshiaki Omura (New York Medical College)
Kuniaki Otsuka (Tokyo Women College Med.)
Donald W. Pfaff (Rockefeller Univ.)
Raphael Pinaud (Univ. of Rochester)
Rudy Rucker (U.S.)
Leif. G. Salford (Lund Univ.)
Mitsuhiko Shionoya (Univ. of Tokyo)
Gentaro Taga (Univ. of Tokyo)
Junji Takabayashi (Kyoto Univ.)
Hiroyuki Takeda (Univ. of Tokyo)
Naoko Tosa (Kyoto Univ.)
Mark van Atten (CNRS, Paris)
Toshio Yanagida (Osaka Univ.)
Motohiro Yoritomi (Shuchiin Univ.)

Organizing Committee

Masatoshi Murase (Kyoto Univ. Chair)
Kuniyoshi Ebina (Kobe Univ.)
Yukio-Pegio Gunji (Kobe Univ.)
Tsuyoshi Hondou (Tohoku Univ.)
Shoji Itakura (Kyoto Univ.)
Kunihiko Kaneko (Univ. of Tokyo)
Kazuto Kato (Kyoto Univ.)
Tutomu Murata (NICT, Brain Proj.)
Shigetoshi Nara (Okayama Univ.)
Yasumasa Nishiura (Hokkaido Univ.)
Shingo Oda (Kyoto Univ.)
Akira Shudo (Tokyo Metro. Univ.)
Shigenori Tanaka (Kobe Univ.)
Shuichi Tasaki (Waseda Univ.)
Ichiro Tsuda (Hokkaido Univ.)
Toshio Yokoyama (Kyoto Univ.)

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Yukawa Institute for Theoretical Physics, Kyoto University

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	10/15(Mon)	10/16(Tue)	10/17(Wed)	10/18(Thu)	10/19(Fri)	10/20(Sat)	
	S.Nara	K. Kaneko	K. Kato	Y. P. Gunji	I. Tsuda	Y. P. Gunji	
9:00 9:15	M. Murase <i>Kyoto Univ.</i> Opening address	Seunghwan Kim <i>APCTP</i> A few problems on functional self-organization in brain	Kunihiko Kaneko <i>Univ. Tokyo</i> Consistency principle in biological dynamical system: Plasticity, robustness, and genotype-phenotype relationship*	Susumu Goto <i>Kyoto Univ.</i> <i>Network perspective in bioinformatics</i>	9:00	Toshio Yokoyama <i>Kyoto Univ.</i>	9:00 9:40
9:15 10:00	Nobuhiro Minaka <i>NIAES</i> Historical reasoning and abductive inference in phylogenetic reconstruction				9:20		
	S.Nara	H. Kook	K. Kato	D. Deamer	A. Kanai	R. Pinaud	
10:15 11:15	Alex Mogilner <i>U. C. Davis</i> Sorting of polar filaments by multiple motor action	L. Tsuda, Y. Yamaguti, S. Kuroda, Y. Fukushima and M. Tsukada <i>Hokkaido Univ.</i> A mathematical model for the hippocampus: towards the understanding of episodic memory and imagination*	Hiroyuki Takeda <i>Univ. Tokyo</i> Coupled oscillators in vertebrate segmentation	Akio Kanai <i>Keio Univ.</i> Importance of periodicity in the genetic information and a new hypothesis of the tRNA evolution*	10:35 11:35	David Deamer <i>U. C. Santa Cruz</i> Self-assembly processes in the prebiotic environment	9:50 10:50
	S.Nara	A. R. Moller	K. Kato	R. Rucker	Y. Takagi	K. Nishimura	
11:30 12:30	Toshio Yanagida <i>Osaka Univ.</i> Single molecule study for elucidating the mechanism involved in utilizing fluctuations by biosystems	Tsutomu Murata <i>NICT, Brain Proj.</i> Creativity and Consciousness of the Human Brain	Vidyanand Nanjundiah <i>Indian Institute of Science</i> How important is genetic relatedness for social behaviour?	Mark van Atten <i>CNRS, Paris</i> The foundations of mathematics as a study of life*	11:45 12:45	Robert Arking <i>Wayne State Univ.</i> Why and how we age, and is that process modifiable?*	11:00 12:00
	S. Kim	Poster Session	L. Salford	Free time	C. Becker	J. Evans	
14:45 15:45	Yukio-Pegio Gunji <i>Kobe Univ.</i> A minimal cell model showing both amoebic movement and network formation!*		John Evans <i>Cambridge University</i> Vertebrate growth and form: A whole-body approach		14:15 15:15	Motohiro Yoritomi <i>Shuchiin Univ.</i> The multiple implications and functions in Mandalas*	13:30 14:10 14:20 15:20
	R. Arking	K. Yoshimura	T. Murata	16:15-17:15 S. Tsokolov Franz Halberg <i>University of Minnesota</i>	A. Mogilner	V. Nanjundiah	
16:00 17:00	Luciano Floridi <i>Oxford Univ.</i> What is bioinformation?	Yoshiaki Omura, MD, ScD <i>New York Medical College</i> Non-invasive quick diagnosis and safe & effective treatment of intractable medical problems: Anti-aging and anti-cancer	Mitsuhiko Shionoya <i>Univ. Tokyo</i> Nanoscope Molecular Architectures in Supra-molecular Science	Life's waves in space-time in and around us	15:40 16:30	Junji Takabayashi <i>Kyoto Univ.</i> Leaf volatile ecology: multitrophic interaction networks mediated by leaf volatiles*	15:40 16:30
	K. Kaneko	Y. Miyake	M. van Atten	T. Hondou	D. W. Pfaff	S. Tsokolov	
17:30 18:30	Raphael Pinaud <i>Univ. of Rochester</i> Neural basis of vocal communication in songbirds*	Kuniaki Otsuka <i>Tokyo Women College Med.</i> Biological clocks in the life and its clinical use	Rudy Rucker <i>San Jose State University</i> Life as a gnarly computation	Hajime Kimata <i>Moriguchi-Keijinkai Hospital</i> Environmental stress and atopic dermatitis: Cure with steroid-free treatment and mutual trust*	16:45 17:45	Nicholas Humphrey <i>London Univ.</i> The necessity of consciousness. Why human zombies would be an evolutionary dead end.	16:45 17:45
18:45 21:00	Reception				Reception	Masatoshi Murase <i>Kyoto Univ.</i> Closing address	
		Y. Miyake	K. Ebina	S. Tanaka			
	20:00 20:45	Gentaro Taga <i>Univ. Tokyo</i> Being and Becoming Human: A dynamical systems perspective on development of brain and behavior*	Yoshihiro Miyake <i>Tokyo Inst. Tech.</i> Co-creation of presence and its application to human interface*	Shoji Itakura <i>Kyoto Univ.</i> <i>Understanding other's mind: Approach from the Developmental Cybernetics</i>			