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Electrophoresis '99

Meeting of the International Council of
Electrophoresis Societies



ICES '99

May 25(Tue.)-28(Fri.), 1999, Tokyo, JAPAN

Program and Abstracts

日本電気泳動学会発行

<http://www.tmig.or.jp/JES/>

GREETINGS

Dear Colleagues:

On behalf of the International Council of Electrophoresis Societies, we welcome you to the Meeting of the International Council of Electrophoresis Societies (ICES '99).

Since the modern history of electrophoresis originated with Prof. A. Tiselius in Sweden in 1937, the scientific, technical and applied fields of electrophoresis flourished all over the world. Hence, the first International Congress of Electrophoresis was held at Munich in 1979, then at Charlston and Athens, and Tokyo in 1983. The Congress grew over the years and was finally reorganized as ICES.

ICES '99 deals with a broad range of topics: Advances in Electrophoresis Techniques, Electrophoresis Biology, Medical Sciences, and Application of Electrophoretic Techniques. The aim of the meeting is to provide a forum for the exchange of the latest information and active discussions. We are also pleased to announce that we have at this meeting world's leading researchers in the field of electrophoresis as our guest speakers and many others who have come from many parts of the world to present their work. We hope that this meeting will provide a huge step forward in your study.

For participants from overseas, we have prepared various programs so you can enjoy every aspect of Japanese tradition and culture. We hope you will take this opportunity to learn about our country and enjoy your stay.



Nobuya Hashimoto

Nobuya Hashimoto
President, ICES '99

Dear Colleagues:

It is my great pleasure to invite you to the Meeting of the International Council of Electrophoresis Societies (ICES '99) in Tokyo.

This year's meeting will focus on new challenges giving an impact on electrophoresis looking at the coming 21st Century. Speakers will cover up-to-date electrophoretic subjects and scientific interests. Also, there will be oral and poster sessions which will provide you the chances to exchange scientific information with each other.

Omiya, one of the most important satellite cities of Tokyo and new expanding city of arts, science and culture, welcomes this important scientific event with great warmth. The city is also surrounded by the enchanting legacy of a glorious civilization (Kawagoe city, Nikko, etc.) and beautiful nature.

Sonic City, a modern congress structure, is neighboring a traditional structure of Hikawa Shrine built more than 2400 years ago as well as the Bonsai Village where many people gain skills and become masters of bonsai. They will provide an unforgettable background to our meeting at end of this century.

I hope this meeting will certainly inspire your activities and provide you an opportunity to exchange international friendship. I hope to see you in Omiya.



I. Sakurabayashi

Ikunosuke Sakurabayashi
Chairman, Organizing Committee

ORGANIZATION

■ Organizing Committee

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Chairman: I. Sakurabayashi

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TIME TABLE

DATE	ROOM	9:30	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	
May 24 (Mon.)	IMH									Welcome Reception		
May 25 (Tue.)	LH	Opening, Hirai Prize Special Lectures			Plenary Session (Electrophoresis Now)							
	IMH				Luncheon Seminar 1						Mixer (Civil Hall, 4F)	
	EH	Poster Exhibit · Commercial Exhibit										
May 26 (Wed.)	LH	Electrophoresis of Cells/Particles		2-D Gel Electrophoresis for Proteomics and Genomics								
	IMH	Affinity Electrophoresis		Luncheon Seminar 2		Protein Electrophoresis in Pathological Biochemistry						
	EH	Poster Exhibit · Commercial Exhibit										
May 27 (Thu.)	LH	Proteome and Protein Database		Combination of Electrophoresis with Mass Spectrometry								
	IMH	Lipoprotein, Apolipoprotein and Its Clinical Significance		Luncheon Seminar 3		Cell Function Analysis		Banquet (Palace Hotel, 4F)				
	EH	Poster Exhibit · Commercial Exhibit										
May 28 (Fri.)	LH	Capillary Electrophoresis 1		Capillary Electrophoresis 2		Poster Award, Closing Lecture/ Remarks						
	IMH	DNA Electrophoresis in Molecular Pathology		Electrophoresis in Genetic and Forensic Analysis								
	EH	Poster Exhibit · Commercial Exhibit										

IMH: International Meeting Hall (International Meeting Hall, Hall Wing, 4F)

LH: Lecture Hall (Small Hall, Hall Wing, 2F)

EH: Exhibition Hall

Registration (Hall Wing, 4F)

May 24 17:00-18:30

May 25-27 9:00-17:00

May 28 9:00-13:00

Social Programs

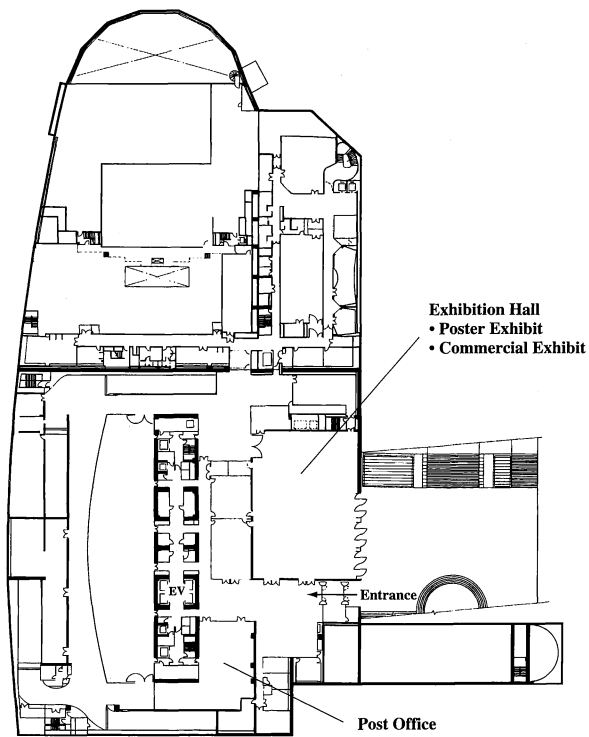
Welcome Reception: May 24 18:00-20:00 (International Meeting Hall, Hall Wing, 4F)

Mixer: May 25 18:30-20:30 (Civil Hall, Building Wing, 4F)

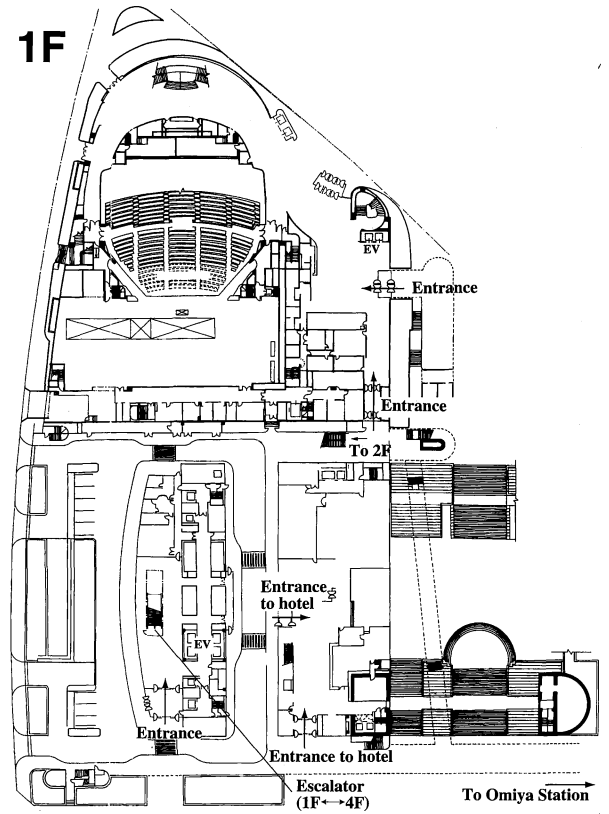
Banquet: May 27 18:30-20:30 (Rose Room, Palace Hotel, 4F)

FLOOR PLAN

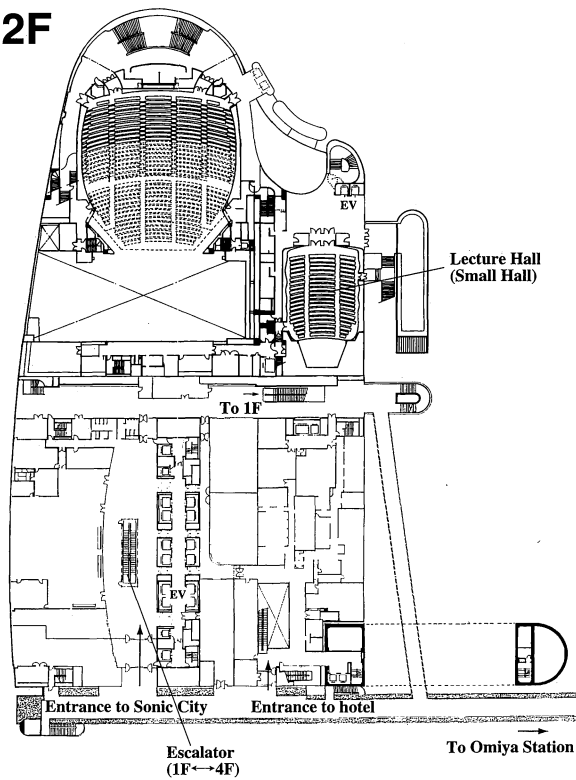
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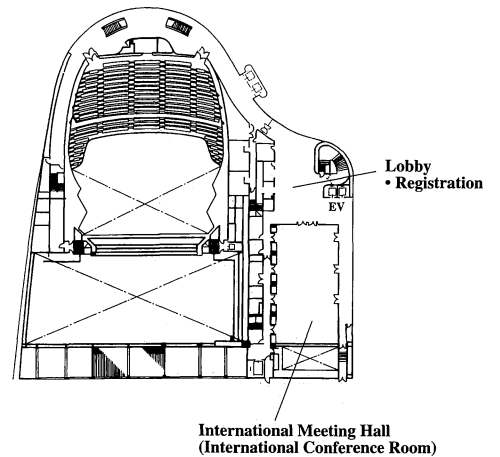
1F



2F



4F



SCIENTIFIC PROGRAM

May 25, Tuesday

(Lecture Hall)

■ **Opening Remarks**

9:40- 9:50 Ikunosuke Sakurabayashi (Omiya Medical Center, Jichi Medical School, Japan)

■ **Hirai Prize Ceremony**

9:50-10:00 Nobuya Hashimoto (Jikei University School of Medicine, Japan)

■ **Lecture Session 1 (LS-1): Special Lectures (Joint Session with 49th Annual Meeting of Electrophoresis Society)**

Chairperson: N. Hashimoto (Japan)

10:00-10:50 Hirai Prize Lecture 1

Novel Electrophoresis Supports and Analysis of Biological Macromolecules
Pier Giorgio Righetti (University of Verona, Italy)

10:50-11:40 Hirai Prize Lecture 2

Two-Dimensional Gel Electrophoresis and Human Protein Databases
Julio E. Celis (University of Aarhus, Denmark)

11:40-12:00 Break

12:00-12:20 50 Years of Japanese Electrophoresis Society

Nobuya Hashimoto (Jikei University School of Medicine, Japan)

12:20-12:40 20 Years of Electrophoresis

Bertold J. Radola (Technical University Munich, Germany)

12:40-15:00 Lunch, Luncheon Seminar 1 (International Meeting Hall)

Poster Visit (Exhibition Hall)

■ **Lecture Session 2 (LS-2): Plenary Session "Electrophoresis Now"**

Chairpersons: K. Taketa (Japan), T. Manabe (Japan)

15:00-15:30 In Pursuit of the Perfect Electrochromatographic Medium

Stellan Hjerten (Uppsala University, Sweden)

15:30-16:00 Particle Electrophoresis for Quality Assurance and Process Control in
Biotechnology, Diagnostics and Pharmaceuticals

Geoffrey V.F. Seaman (Emerald Diagnostics Inc., USA)

16:00-16:30 Newer Genotyping Methods – From Hand Made Gels to Automated Capillary
Systems

Carl-Henrik Brogren (Institute of Food Safety and Toxicology, Denmark)

16:30-16:50 Break

16:50-17:20 Current Status of Proteome Research

K.L. Williams (Australian Proteome Analysis Facility and Macquarie University,
Australia)

17:20-17:50 Glycosyltransferase Genes: Regulation and Expression

Naoyuki Taniguchi (Osaka University School of Medicine, Japan)

May 26, Wednesday

(Lecture Hall)

■ Lecture Session 3 (LS-3): Electrophoresis of Cells and Particles

Chairpersons: J. Bauer (Germany), W. Schütt (Germany)

- 9:30- 9:50 Possibilities to Increase Resolution of Free Flow Zone Electrophoresis
Johann Bauer (Max-Planck-Institut f. Biochemie, Germany)
- 9:50-10:10 Electrophoretic Purification and Characterization of Plasma Membrane Receptors in *Arabidopsis Thaliana*
Hervé Canut (UPS-CNRS, France)
- 10:10-10:30 The Importance of Electrophoretic Properties of Magnetic Polymer Carriers
Cordula Grüttner (Micro Caps GmbH Rostock, Germany)
Wolfgang Schütt (Jikei University School of Medicine, Japan; JMS Co., Ltd., Japan)
Nobuya Hashimoto (Jikei University School of Medicine, Japan)
- 10:30-10:50 Mammalian Pituitary Growth Hormone: Applications of Continuous Flow Electrophoresis
W.C. Hymer (The Pennsylvania State University, USA)
- 10:50-11:00 Break
- 11:00-11:20 Covalent Binding of Polyethylene Glycol (PEG) to the Surface of Red Blood Cells (RBC) as Detected and Followed up by Electrophoretic Mobility Analysis
Domagoj Sabolovic (INSERM, France)
- 11:20-11:40 Electrophoresis and Field-Flow Fractionation in Electric Double Layer Observed by Dynamic Light Scattering as Possible Analytical Instrument
S.N. Semeonov (Institute of Biochemical Physics RAS, Russia)
- 11:40-12:00 Multistage Electrophoresis and Magnetic Separation of Cells, Particles and Solutes
Paul Todd (University of Colorado, USA)
- 12:00-12:20 Recent Instrumental Developments in Free Flow Electrophoresis
Gerhard Weber (Dr. Weber GmbH, Germany)
- 12:20-15:00 Lunch, Luncheon Seminar 2 (International Meeting Hall)
- 13:30-14:50 Poster Discussion 1 (Exhibition Hall)

(International Meeting Hall)

■ Lecture Session 4 (LS-4): Affinity Electrophoresis

Chairpersons: T.C. Bøg-Hansen (Denmark), K. Takeo (Japan)

- 9:30- 9:55 Affinity Electrophoresis for Qualitative and Quantitative Binding Studies
Niels H.H. Heegaard (Statens Serum Institute, Denmark)
- 9:55-10:20 Affinophoresis: A Mobile Affinity-Electrophoresis System
Kiyohito Shimura (Teikyo University, Japan)
- 10:20-10:45 Affinity Capillary Electrophoresis
M.A. Vijayalakshmi (Centre de Recherches de Royallieu, France)

10:45-11:00 Break

11:00-11:25 **Comparison of Lectin-Binding Patterns between Young Adult and Older Rat Glycoproteins in Brain**

Yuji Sato, Mika Kimura and Tamao Endo (Tokyo Metropolitan Institute of Gerontology, Japan)

11:25-11:50 **Antigen-Antibody Specificity and Avidity Studied by Blotting Techniques after Electrophoretic Separations**

Gabriel Peltre (Institut Pasteur, France)

11:50-12:15 **Two-Dimensional Affinity Electrophoresis for Studies of Immune Responses**

Kazuyuki Nakamura, Yusuke Mimura, Tatehiko Tanaka and Kazusuke Takeo (Yamaguchi University, School of Medicine, Japan)

12:15-15:00 Lunch, Luncheon Seminar 2 (International Meeting Hall)

13:30-14:50 Poster Discussion 1 (Exhibition Hall)

(Lecture Hall)

■ Lecture Session 5 (LS-5): Two-Dimensional Gel Electrophoresis for Proteomics and Genomics

Chairpersons: A. Görg (Germany), T. Toda (Japan)

15:00-15:20 **Proteomics Technology Development in Geneva**

Denis F. Hochstrasser (Geneva University Hospital, Switzerland)

15:20-15:40 **Recent Developments in IPG-Dalt: Wide pH Gradients up to pH 12, Longer Separation Distances and Simplified Procedures**

Angelika Görg (Technical University of Munich, Germany)

15:40-15:55 **Combining Sequential Extraction and Multiple Overlapping pH Gradients to Allow Rapid Two-Dimensional Separations of Complex Samples**

Ben R. Herbert, M.P. Molloy, A.A. Gooley, and K.L. Williams (Macquarie University, Australia)

15:55-16:15 **Quantitative Aspect of Two-Dimensional Gel Electrophoresis and Protein Database for Research on Molecular Mechanisms of Aging**

T. Toda and N. Kimura (Tokyo Metropolitan Institute of Gerontology, Japan)

16:15-16:30 Break

16:30-16:50 **Agarose IEF for the Detection of Many Isoforms and High Molecules in Muscle Protein Analysis**

Tamio Hirabayashi and Jun-Ichi Miyazaki (Tsukuba University, Japan)

16:50-17:10 **Comparisons of Human Plasma Protein Patterns Obtained by Four Techniques of Two-Dimensional Gel Electrophoresis to Detect Protein-Protein Interactions**

Takashi Manabe (Ehime University, Japan)

17:10-17:30 **High Resolution Two-Dimensional Electrophoresis of End-Labeled Genomic DNA Fragments**

Jun-ichi Asakawa (Radiation Effects Research Foundation, Japan)

(International Meeting Hall)

■ Lecture Session 6 (LS-6): Protein Electrophoresis in Pathological Biochemistry Chairpersons: J.L. Millan (Sweden), T. Komoda (Japan)

- 15:00-15:25 **Testis-Specific Gene Expression and Its Significance to Fertility Research: Lessons from Idh-c and Cytochrome Ct**
José Luis Millán (The Burnham Institute, USA)
- 15:25-15:50 **Localization and Function of Bone Alkaline Phosphatase**
Viviane Van Hoof (University Hospital Antwerp, Belgium)
- 15:50-16:15 **Reactive Oxygen Species Generated by Glycation Cause a Breakdown of Bone Alkaline Phosphatases**
I. Koyama (Saitama Medical School, Japan)
- 16:15-16:30 **Break**
- Chairpersons: V. Van Hoof (Belgium), K. Suzuki (Japan)
- 16:30-16:55 **Involvement of Calcium and Protein Kinase C (PKC) in the Signal Transduction Pathway of P125FAK and Paxillin Tyrosine Phosphorylation by Cyclical Stretch/Relaxation in Cultured Rat Mesangial Cells**
S. Kondo (St. Marianna University, Japan)
- 16:55-17:20 **Oxidative Stress and Apoptosis**
Keiichiro Suzuki (Osaka University Medical School, Japan)

May 27, Thursday

(Lecture Hall)

■ Lecture Session 7 (LS-7): Proteome and Protein Database Chairpersons: J.E. Celis (Denmark), H. Hirano (Japan)

- 9:30-9:55 **Microsequence Analysis of N-Terminally Blocked Proteins Separated by 2-D Gel Electrophoresis**
H. Hirano (Yokohama City University, Japan)
- 9:55-10:20 **Mass Spectrometry of Nucleic Acids and Proteins in Genome and Proteome Analyses**
Hisaaki Taniguchi (Fujita Health University, Japan)
- 10:20-10:45 **Proteome Analysis of Rat Cerebellar Proteins**
T. Isobe (Tokyo Metropolitan University, Japan)
- 10:45-11:10 **Proteomic Analysis of Heart Disease and Transplantation**
M.J. Dunn (National Heart and Lung Institute, UK)
- 11:10-11:25 **Break**
- 11:25-11:50 **Interface of Genome and Proteome**
T. Sazuka (Kazusa DNA Research Institute, Japan)
- 11:50-12:15 **Analysis of Post-Translational Modifications in Proteins and Proteomes**
R. Aebersold (University of Washington, USA)

12:15-12:40 **Proteomic 2D PAGE Databases: Novel Resources for the Study of the Proteome in Health and Disease**

J.E. Celis (Aarhus University, Denmark)

12:40-15:20 **Lunch, Luncheon Seminar 3 (International Meeting Hall)**

13:50-15:10 **Poster Discussion 2 (Exhibition Hall)**

(International Meeting Hall)

■ Lecture Session 8 (LS-8): Lipoprotein, Apolipoprotein and Its Clinical Significance

Chairpersons: L.K. Curtiss (USA), I. Sakurabayashi (Japan)

9:30-9:55 **Apolipoprotein E and Atherosclerosis**

Linda K. Curtiss (The Scripps Research Institute, USA)

9:55-10:20 **Molecular Analysis of Apolipoprotein Mutants**

Jun Sasaki (Fukuoka University, Japan)

10:20-10:45 **Clinical Implication of LDL-Cholesterol Measurement**

Nader Rifai (Children's Hospital, USA)

10:45-11:10 **Gene Expression in Macrophages Accumulated with Degenerated Lipoproteins**

Yusuke Furukawa (Center for Molecular Medicine, Jichi Medical School, Japan)

11:10-11:25 **Break**

11:25-11:50 **Presence of Oxidized LDL- α 1 Antitrypsin Complex in Human Serum and Its Clinical Significance**

Kazuo Uchida, Shinichi Mashiba (Kyoto Medical Research Institute, Japan)

Ikunosuke Sakurabayashi (Omiya Medical Center, Jichi Medical School, Japan)

Tatsuhiko Kodama (Tokyo University, Japan)

11:50-12:15 **Atherosclerosis and Small Dense LDL**

Gen Yoshino (Toho University, School of Medicine, Japan)

12:15-15:20 **Lunch, Luncheon Seminar 3 (International Meeting Hall)**

13:50-15:10 **Poster Discussion 2 (Exhibition Hall)**

(Lecture Hall)

■ Lecture Session 9 (LS-9): Combination of Electrophoresis with Mass Spectrometry

Chairpersons: A. Burlingame (USA), T. Isobe (Japan)

15:20-15:45 **Assemblages and Machines Using 2-D Gel Electrophoresis, Advanced Mass Spectrometry and Genomic Database Interrogation**

A. Burlingame (Univ. California, San Francisco, USA; Ludwig Institute of Cancer Research, UK; University College of London, UK)

15:45-16:10 **Differential Scanning for De Novo Sequencing: Mass Spectrometry Overcomes the Species Boundary for Protein Sequencing**

Matthias Wilm, Gitte Neubauer and Angela Bachi (EMBL, Germany)

16:10-16:35 **Proteomics Using the Combined Systems of Multi-Dimensional Separation Techniques and Mass Spectrometry**
Kazuo Seta (Tokyo Metropolitan University, Japan; PE Biosystems, Japan)

16:35-16:50 **Break**

16:50-17:15 **Proteomic Approach to the Identification of Cell Membrane Proteins: Analysis by Two Dimensional Electrophoresis and MALDI-TOF Mass Spectrometry**
Toshihiko Kadoya (Kirin Brewery Co., Ltd., Japan)

17:15-17:40 **Bioproteomics and Colon Cancer**
Richard J. Simpson (Ludwig Inst., Australia)

(International Meeting Hall)

■ **Lecture Session 10 (LS-10): Cell Function Analysis**
Chairpersons: A. Sobel (France), K. Nakamura (Japan)

15:20-15:45 **Regulation of Invasive Growth of Tumor Cells by Matrix Proteinases and Cell Adhesion Proteins**
Kaoru Miyazaki (Yokohama City University, Japan)

15:45-16:10 **Stathmin, Its Family and Partners in Intracellular Signal Relay and Integration**
Andre Sobel (INSERM, France)

16:10-16:35 **Isolation of Subpopulations of Human Myeloma Cells by a Cell Sorter and Their Proliferative Response to Interleukin-6**
Hideaki Ishikawa (Yamaguchi University School of Medicine, Japan)

16:35-16:50 **Break**

16:50-17:05 **Analysis of Galectin 1-Mediated Cell Signaling by Combined Precipitation and Electrophoresis Techniques***
Michael Caron (Université Paris-Nord, France)
*Nominated from the list of presentation in ICES '99

17:05-17:30 **Neuronal Activity-dependent Genes Associated with Survival and Apoptosis of Cerebellar Granule Neurons**
T. Ono, N. Suzuki and K. Kawashima (Tokyo Metropolitan Institute of Medical Science, Japan)

May 28, Friday

(Lecture Hall)

■ **Lecture Session 11 (LS-11): Capillary Electrophoresis 1**
Chairpersons: P.G. Righetti (Italy), S. Terabe (Japan)

9:30-9:55 **Capillary Electrophoresis in Clinical Analysis**
Wolfgang Thormann (University of Bern, Switzerland)

9:55-10:20 **Fluorescence-Labeled Peptide pI Markers for Capillary Isoelectric Focusing with Fluorescence Detection - Labeling at a Cysteine Residue**
Kiyohito Shimura (Teikyo University, Japan)

10:20-10:45 **Aptamers and Antibodies as Ligands in High-Speed Assays by Capillary Electrophoresis**
Robert T. Kennedy (University of Florida, USA)

10:45-11:00 **Break**

11:00-11:25 **Improvement of Detection Sensitivity in Micellar Electrokinetic Chromatography**
Shigeru Terabe (Himeji Institute of Technology, Japan)

11:25-11:50 **CZE Electropherogram with Effective Mobility Axis and Its Analytical Utility (II)**
Takesi Hirokawa (Hiroshima University, Japan)

11:50-13:00 **Lunch, Poster Visit (Exhibition Hall)**

(International Meeting Hall)

■ **Lecture Session 12 (LS-12): DNA Electrophoresis in Molecular Pathology**
Chairpersons: A.E. Reeve (New Zealand), K. Imai (Japan)

9:30-9:55 **Molecular Changes in Human Gastrointestinal Tumors**
Hiroyuki Yamamoto (Burnham Institute, USA)

9:55-10:20 **Role of Genomic Imprinting in Embryonal Tumourigenesis**
Anthony E. Reeve (University of Otago, New Zealand)

10:20-10:45 **DNA Methylation Alterations in Cancer**
Fumiichiro Yamamoto (Burnham Institute, USA)

10:45-11:00 **Break**

11:00-11:25 **Significance of Methylation of Genes**
Minoru Toyota (Johns Hopkins Oncology Center, USA)

11:25-11:50 **Immunogene Therapy for Cancer**
David P. Carbone (Vanderbilt Cancer Center, USA)

11:50-13:00 **Lunch, Poster Visit (Exhibition Hall)**

(Lecture Hall)

■ **Lecture Session 13 (LS-13): Capillary Electrophoresis 2**
Chairpersons: S. Honda (Japan), R. Kennedy (USA)

13:00-13:20 **Studies of Carbohydrate-Protein Interaction by Capillary Electrophoresis**
Susumu Honda (Kinki University, Japan)

13:20-13:45 **Capillary Electrochromatography on Antidepressant Drugs**
Douglas Westerlund (Uppsala University, Sweden)

13:45-14:10 **Chemical Integrated Circuits**
Andrew J. De Mello (Imperial College of Science, UK)

14:10-14:30 **Integrated Analytical System on a Glass Chip-reaction, Separation and Detection in Liquid Micro Space**
Takehiko Kitamori (The University of Tokyo, KAST, Japan)

14:30-14:50 **Microfabricated Capillary Array Electrophoresis Chip for Genome and Proteome Analysis**
Yoshinobu Baba (The University of Tokushima, Japan)

14:50-15:00 Break

(International Meeting Hall)

■ **Lecture Session 14 (LS-14): Electrophoresis in Genetic and Forensic Analysis**
Chairpersons: F. Yamamoto (USA), N. Yoshioka (Japan)

13:00-13:25 **Nucleotide Changes Underlying Genetic Polymorphisms of Protein in Serum and Blood Cells**
Koichi Suzuki (Osaka Medical College, Japan)

13:25-13:50 **Sequence and Length Polymorphism at the ACTBP2 Short Tandem Repeat Locus**
Burkhard Rolf (Universität München, Germany) and Bernd Brinkmann
(Westfälische Wilhelms-Universität, Germany)

13:50-14:15 **Histo-Blood Group ABO System: Structure and Function Analysis of Genes and Gene Products**
Fumiichiro Yamamoto (Burnham Institute, USA)

14:15-14:40 **Structure Properties and Biological Functions of Human Blood Group Antigens**
Jean Pierre Cartron (Institut National de la Santé et de la Recherche Médicale
(U76), France)

14:40-15:00 Break

(Lecture Hall)

■ **Poster Award**
15:00-15:20

■ **Closing Lecture (CL)**
Chairperson: T. Manabe (Japan)

15:20-16:00 **From Genome to Proteome: A New Look at Nature Complexity**
Denis F. Hochstrasser (Geneva University Hospital, Switzerland)

■ **Closing Remarks**
16:00-16:05 Nobuya Hashimoto (Jikei University School of Medicine, Japan)

POSTER SESSIONS

(Exhibition Hall)

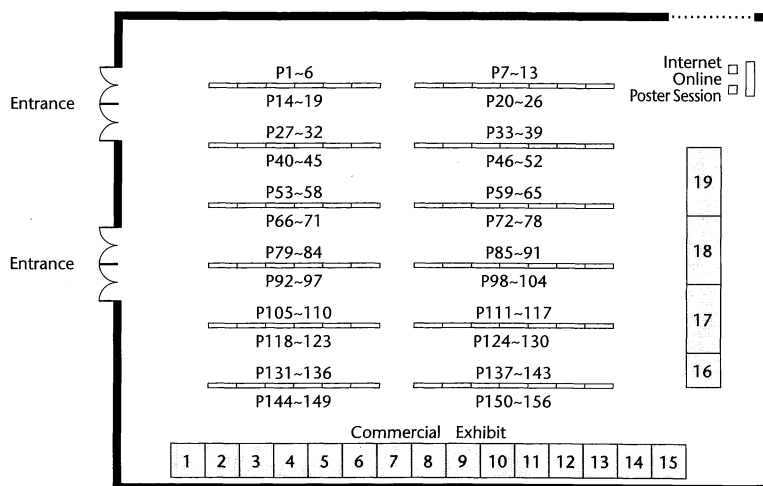
Poster Exhibit

May 25 (Tue.) - May 27 (Thu.) 9:30-18:00
May 28 (Fri.) 9:30-16:00

Poter Discussion

1: May 26 (Wed.) 13:30-14:50 (For posters in odd numbers)
2: May 27 (Thu.) 13:50-15:10 (For posters in even numbers)

*Presenters are requested to stand in front of their panels for questions and answers during the discussion time indicated above.



Electrophoresis of Cells and Particles

- P-1** Application of Free-flow Electrophoresis to the Separation of Murine Lymphocytes
T. Liu, X. Shen, G.-D. Wu, Q.-C. Xia, S.-N. Wang, Z.-J. Wu and W. Hu (China)
- P-2** Characteristics of Highly Disperse Oxides and Interaction with Polymers
V.M. Gun'ko, V.I. Zarko, E.F. Voronin, V.V. Turov, E.M. Pakhlov, E.V. Goncharuk (Ukraine), R. Leboda, E. Chibowski (Poland)
- P-3** Application of Cell Electrophoresis for Study of Rheological Properties of Water Solutions Treated by a Direct Electrical Current
A.I. Miroshnikov, A.V. Gavryushkin, A.Y. Ivanov and V.M. Fomchenkov (Russia)
- P-4**
- P-5** Electrokinetic Phenomena of the Second Kind. Theory. Experiment. Applications
N. Mishchuk (Ukraine) and S. Barany (Hungary)
- P-6** Study of an Electrokinetic Potential Cells *Escherichia coli* at Interaction of Antibodies with a Surface Antigene K99
V.M. Fomchenkov, M.M. Sadikov and A.V. Gavryushkin (Russia)

- P-7 Blood-Compatibility of Particulate Drug Carriers Investigated by Cell-Electrophoresis**
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Y.-M. Chiung, B.-L. Lin and H.-D. Shen (Taiwan)

- P-144 HSP70 Related Epitopes are Common Allergenic Determinants for Barley and Corn Antigens**
Y.-M. Chiung and B.-L. Lin (Taiwan)
- P-145 A Case of IgG Type Multiple Myeloma Converted from Monoclonal Gammopathy of Undetermined Significance at a Short Term Interval**
S. Shiohira, K. Fujita, I. Sakurabayashi, K. Heshiki and T. Miyaguni (Japan)
- P-146 Investigation of the Electrophoretic Analysis System for Routine Practice**
K. Kawamura, E. Nagano, Y. Okuzumi and M. Mori (Japan)
- P-147 Association between Enzyme-linked Immunoglobulins and Antinuclear Antibodies**
K. Kubota, T. Tozawa and K. Akano (Japan)
- P-148 Measurement of Serum LDL-cholesterol in Patients with Hypertriglycemia**
Y. Horiuchi, K. Takanohashi, S. Oikawa, A. Numabe, A. Hishinuma, T. Ieiri (Japan)
- P-149 An Another Aspect of Lipid Lowering Agent Using Agarose Gel Electrophoresis**
H. Kurata, K. Uehara, K. Utsunomiya, T. Kido, T. Iwamoto, K. Kondo, R. Tobiyama, H. Itakura, N. Hashimoto and N. Tajima (Japan)
- P-150 Rapid Immunoelectrophoresis Technique for the Diagnosis of Helminthiasis, Systemic Mycoses, and Hypersensitivity Pneumonitis**
P. Recco, R. Falcou (France), C. Blessum (USA), A. Monier, V. Sans and J.P. Seguela (France)

INTERNET ONLINE POSTER SESSIONS

Internet Online Poster Sessions are open at the Virtual Conference Hall:
[<http://proteome.tmig.or.jp/JES/ICES/OLP/olp.html>]

Networking computers for free access to the Virtual Conference Hall are available in the Exhibition Hall during the meeting. Presenters and registered audience may also attend the poster sessions and join the electric discussion from outside of the meeting room by internet connection.

The latest version of program of the INTERNET ONLINE POSTER SESSIONS is announced at the Exhibition Hall.

LUNCHEON SEMINARS

(International Meeting Hall)

■ Luncheon Seminar 1 (L25) (12:45-13:45, May 25)

Clinical Capillary Electrophoresis – What Can Be Seen through Capillary

Chairperson: I. Sakurabayashi (Japan)

Serum Protein Fractionation Analysis by Paragon CZE™ 2000 Fully Automated
Capillary Electrophoresis

Masahiro Daimon (Jichi Medical School)

Providing Electrophoresis Interpretation in a Cost-Controlled Environment

Carl R. Jolliff (Physicians' Laboratory Services, Inc.)

Development of a Capillary Zone Electrophoresis System for Routine Clinical Use

Cynthia Blessum (Beckman Coulter Inc.)

(Presented by Beckman Coulter Inc.)

■ Luncheon Seminar 2 (L26) (12:45-13:45, May 26)

Proteome Works™ System for Proteome Discovery

Emily Dale (Bio-Rad Laboratories)

(Presented by Nippon Bio-Rad Laboratories)

■ Luncheon Seminar 3 (L27) (12:45-13:45, May 27)

Chairperson: T. Toda (Japan)

Proteomic Analysis on the Basis of Two-Dimensional Electrophoresis

1) Angelika Görg (Technische Universität München, Lehrstuhl für Allgemeine
Lebensmittel Technologie)

2) Rolf Ehrnström (Amersham Pharmacia Biotech)

(Presented by Amersham Pharmacia Biotech)

GENERAL INFORMATION

- **Dates:** May 25 (Tue.) - 28 (Fri.), 1999
- **Venue:** Omiya Sonic City
1-7-5 Sakuragi-cho, Omiya City, Saitama 331-0852, Japan
- **Hosted by:** Japanese Electrophoresis Society (Established in 1950)
ICES '99 Organizing Committee
- **Supported by:** Japan Society for Biomedical Gerontology
Japan Society of Clinical Chemistry
Japanese Association of Medical Technologists
Japanese Society of Legal Medicine
Japanese Society of Veterinary Science
The Japan Society for Analytical Chemistry
The Japan Society of Clinical Pathology
The Japanese Biochemical Society
The Pharmaceutical Society of Japan
The Society for Chromatographic Sciences
(in alphabetical order)
Japan National Tourist Organization
The Commemorative Association for
the Japan World Exhibition (1970)

■ **Official Language:** English

■ **ICES '99 News in WWW**

Information of the meeting can be obtained via internet at:

<http://www.tmig.or.jp/JES/ICES/ices99.html>

■ **Registration**

Registration desk is located on the 4th floor of the Hall Wing. Registration hours are as follows:

May 24 (Mon.) 17:00-18:30

May 25 (Tue.)-27 (Thu.) 9:00-17:00

May 28 (Fri.) 9:00-13:00

Those who have registered in advance will receive a Congress bag containing the "Program & Abstracts" and a name tag at the Registration Desk upon presenting their registration cards. For on-site registration, participants must fill out the Registration Form and pay the late registration fee.

Participants are required to wear the name tag when attending the Scientific Sessions as well as Social Programs.

■ Proceedings

Proceedings, a special issue of the journal ELECTROPHORESIS (Wiley-VCH), will be published after the meeting. The cost is ¥4,500/issue including postage. Those who wish to purchase a copy should check the appropriate box on the Registration Form and pay the fee at the registration desk. Proceedings will be sent directly from the publisher.

■ Information Desk and Message Board

Information Desk will be in the lobby of the International Meeting Hall (4th floor).

A Message Board will be provided in the lobby. Any program changes and urgent announcement from the secretariat will be posted on the Message Board. Incoming mail and fax messages addressed to the congress participants will be also placed on the Message Board.

■ Hotel Accommodation and Travel Assistance (JTB Desk)

Assistance with hotel accommodation can be obtained from the JTB (Japan Travel Bureau) Desk in the lobby. Their booth will be open all day during the meeting to assist participants with their travel arrangements and airline reconfirmation for their return flights.

■ Meals and Refreshment

Refreshments will be served free of charge. There are several restaurants inside the Omiya Sonic City and many others including coffee shops at reasonable prices in the immediate vicinity of the complex.

■ Communication Services

Post office is located in the basement floor of the Building Wing.

Public phones can be found at various places in the Omiya Sonic City. Gray-colored public phones can be used for international calls.

Public fax machines are also available in the complex; however, no internet facilities are provided.

■ Lost and Found

Inquiries concerning lost properties will be handled at the Information Desk.

■ Airport Tax

All air travelers leaving Japan will be required to pay an airport tax of ¥2,040 from New Tokyo International Airport (Narita) or ¥2,650 from Kansai International Airport, payable only in Japanese yen. All other international airports in Japan such as Haneda, Osaka and others do not require the airport tax. For those leaving Japan from Narita Airport, the airport has two terminal buildings, Terminal 1 and Terminal 2. Please make sure of the terminal building of your airline.

■ Customs

Japanese customs is fairly lenient and allows bringing in items necessary for personal use.

Duty-free imports are: 3 bottles of liquor; 200 cigarettes or 50 cigars; 2 ounces of perfume; gifts and souvenirs other than the above whose total market value does not exceed ¥200,000.

Strictly prohibited are firearms and other types of weapons, and narcotics.

■ **Tax:** There is a consumption tax of 5% on all expenditures.

■ **Tipping:** In Japan, tips are not necessary, even at hotels and restaurants.

■ **Climate**

The temperature in Omiya during the period of the meeting ranges between 14°C and 23°C.

■ **Currency Exchange**

Only Japanese yen (¥) is accepted at regular stores and restaurants. Certain foreign currencies and credit cards may be accepted at a limited number of hotels, restaurants and souvenir shops. You can exchange currencies at foreign exchange banks and other authorized money exchangers on presentation of your passport.

■ **Traveler's Checks and Credit Cards**

Traveler's checks are accepted only at leading banks and major hotels in principal cities, and the use of traveler's checks in Japan is not as popular as in some other countries. MasterCard, Diners Club, Visa and American Express are widely accepted at hotels, department stores, shops and restaurants.

■ **Electrical Appliance**

Japan operates on 100-110 volts for electrical appliances. The frequency is 50 Hz in eastern Japan including Tokyo and Omiya and 60 Hz in western Japan including Kyoto.

■ **Shopping**

Business hours of department stores are generally from 10:00 to 19:00. They are open on Sundays and national holidays, but closed either on Mondays, Wednesdays or Thursdays.

Business hours for retail shops differ from one another, but usually from 10:00 to 20:00, and are open on Sundays and national holidays.

■ **Time Zone:** Japan standard time is 9 hours ahead of Greenwich Mean Time.

■ **Insurance**

The Organizing Committee will not accept liability for personal injuries or for loss or damage to property belonging to participants, either during or as a result of the meeting or during any tours.

Delegates are thus encouraged to obtain travel insurance (medical, personal, accident, and/or luggage) in their home country prior to departure.

OPTIONAL TOURS

OP-1 OMIYA HALF-DAY

Date: May 25 (Tuesday) 9:00 - 12:30

Fare: ¥7,500 (per person)

Assemble place: Entrance Hall of Sonic City, Building Wing

Sightseeing points:

- * Hikawa Jinja: The shrine is said to have been built more than 2,400 years ago and was rebuilt a number of times. Currently, there are more than 290 Hikawa Jinja in Japan and the fact that this shrine is the center of all the Hikawa Jinja illustrates the historical importance of Omiya as the birthplace of the nation's rapid ethnological and political development.
- * Bonsai Village: The place where people gain skills and spiritual growth through bonsai. Many of the people who have studied at the village are now active leaders of bonsai all over the world.

OP-2 TOKYO FULL-DAY

Date: May 26 (Wednesday) 9:00 - 16:00

Fare: ¥13,500 (per person)

Assemble place: Entrance Hall of Sonic City, Building Wing

Sightseeing points:

- * Imperial Palace Plaza: The palace became the Imperial Family residence after the Meiji Restoration in 1868. It is in the heart of Tokyo covering an area of 101ha. (250 acres).
- * Asakusa Kannon Temple: This ancient temple is one of the major symbols of old Tokyo with its two great gates and rows of traditional family shops and stalls, called "Nakamise."
- * Edo Tokyo Museum: Various displays of museum galleries enable visitors to learn the history, life style and culture of Tokyo. Those of Edo period (17th-19th century) are also displayed.

OP-3 KAWAGOE FULL-DAY

Date: May 27 (Thursday) 9:00 - 16:00

Fare: ¥12,000 (per person)

Assemble place: Entrance Hall of Sonic City, Building Wing

Sightseeing points:

- * Kawagoe Castle (Honmaru Goten): Honmaru Goten is a huge structure built in 1848, as a main residence of Kawagoe Castle. It has been converted into a museum with archaeological artifacts and pictures of culture properties.
- * Tokino Kane (Bell Tower): This "Bell Tower" is the symbol of historical Kawagoe town, originally built in 1624.
- * Kawagoe City Museum: The city museum was built in 1980 to collect and display the precious, cultural properties which are left today in Kawagoe city, the city often called "Little Edo," one of the typical castle town in the Kanto area.
- * Kitain Temple: The head Tendai Sect temple of the Kanto area boasts several beautiful gardens in its precinct. Planted with plum, cherry, and maple trees, plus a variety of flowers, particularly hydrangeas and azaleas, the gardens change their colors throughout the year.

OP-4 NIKKO FULL-DAY

Date: May 28 (Friday) 9:00 - 17:30

Fare: ¥14,000 (per person)

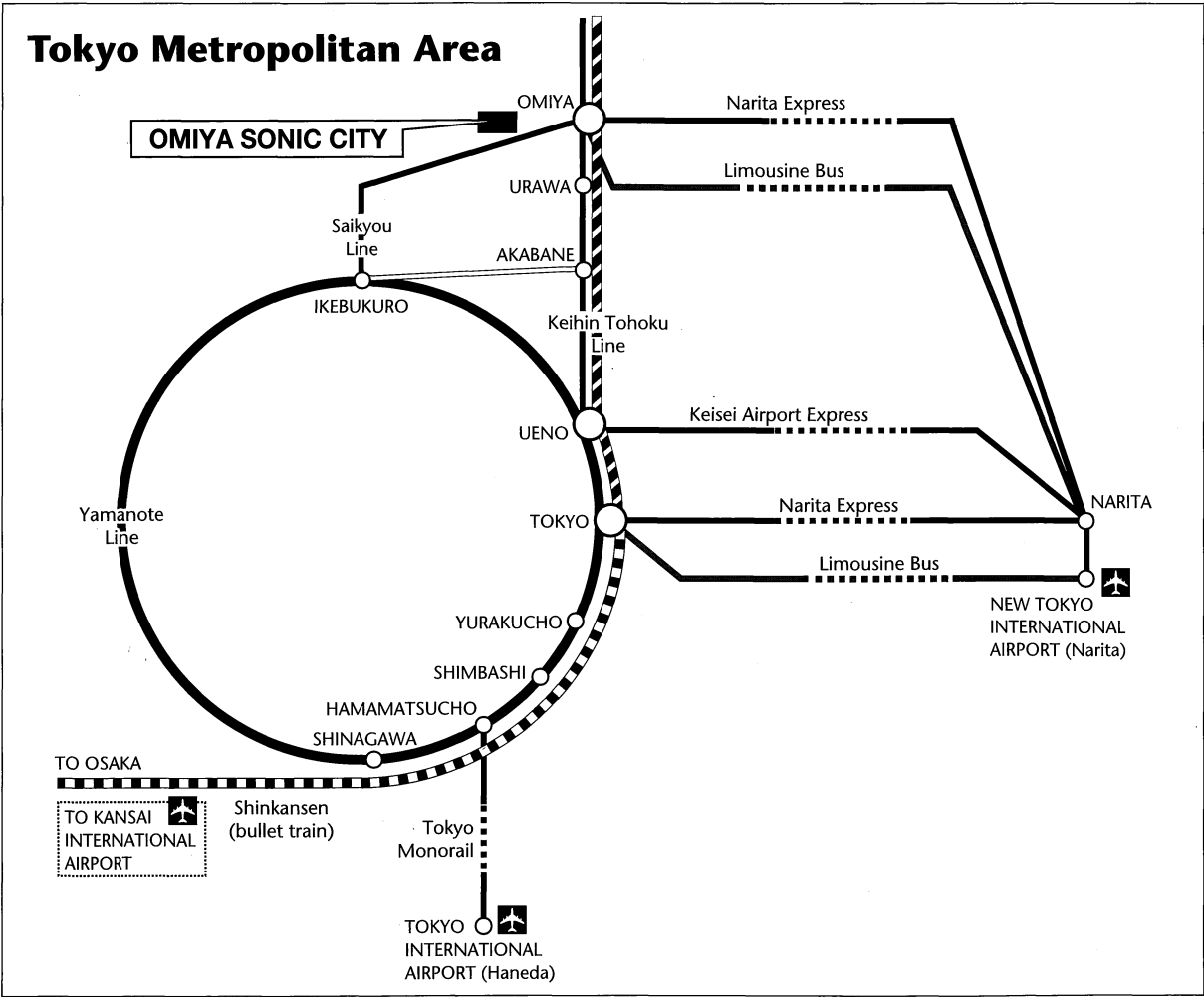
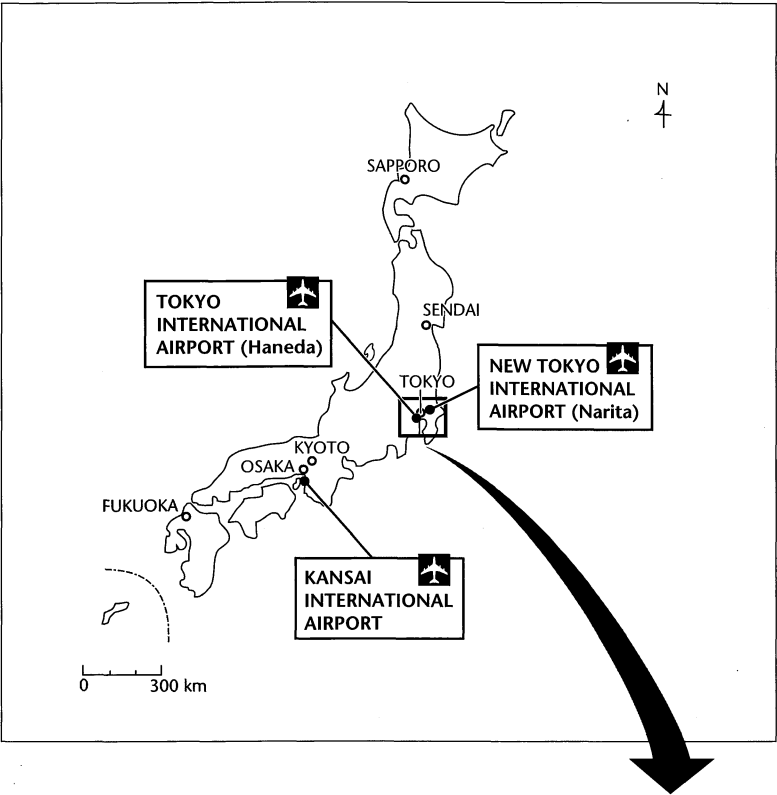
Assemble place: Entrance Hall of Sonic City, Building Wing

Sightseeing points:

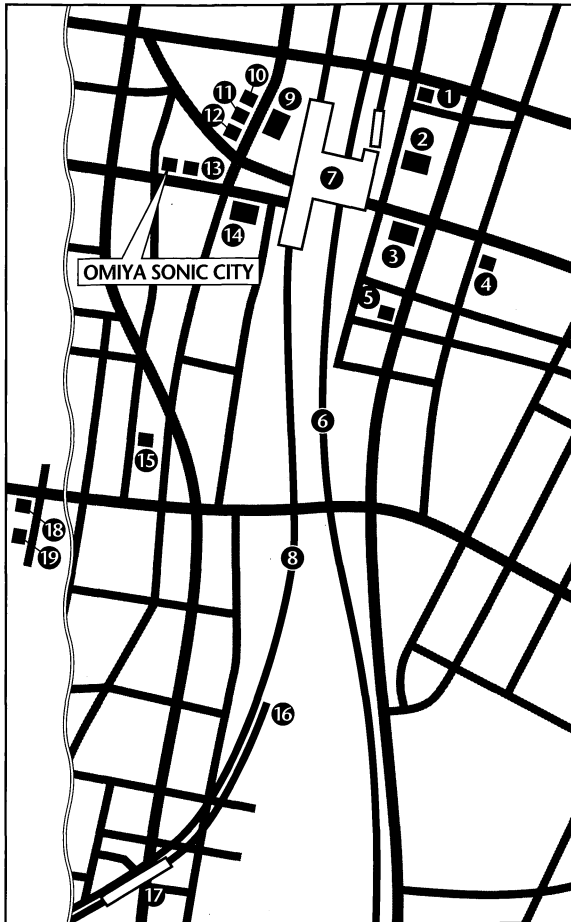
- * Toshogu-gu shrine, designated as a national treasure, is comprised of many magnificent wooden buildings covered in gold and richly colored ornamentation. This synthesis of Buddhist and Shinto architecture includes a five-story pagoda, belfry, drum tower, 'torii'gate, and sacred cistern.
- * Rinno-ji Temple: Riinoji, the head temple of the Tendai-shu Sect, is a huge temple complex which consists of one main temple and 15 minor temples, and boasts a large congregation of followers.

- Note:
- 1) Please prepare walking shoes when you join the tour.
 - 2) Places to visit are subject to change with or without notice.
 - 3) Tours may be cancelled when the number of participants fails to reach 20.

ACCESS TO MEETING SITE

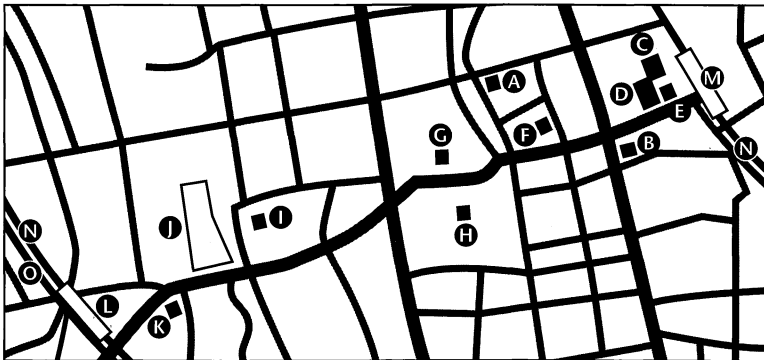


■ Omiya/Yono Area

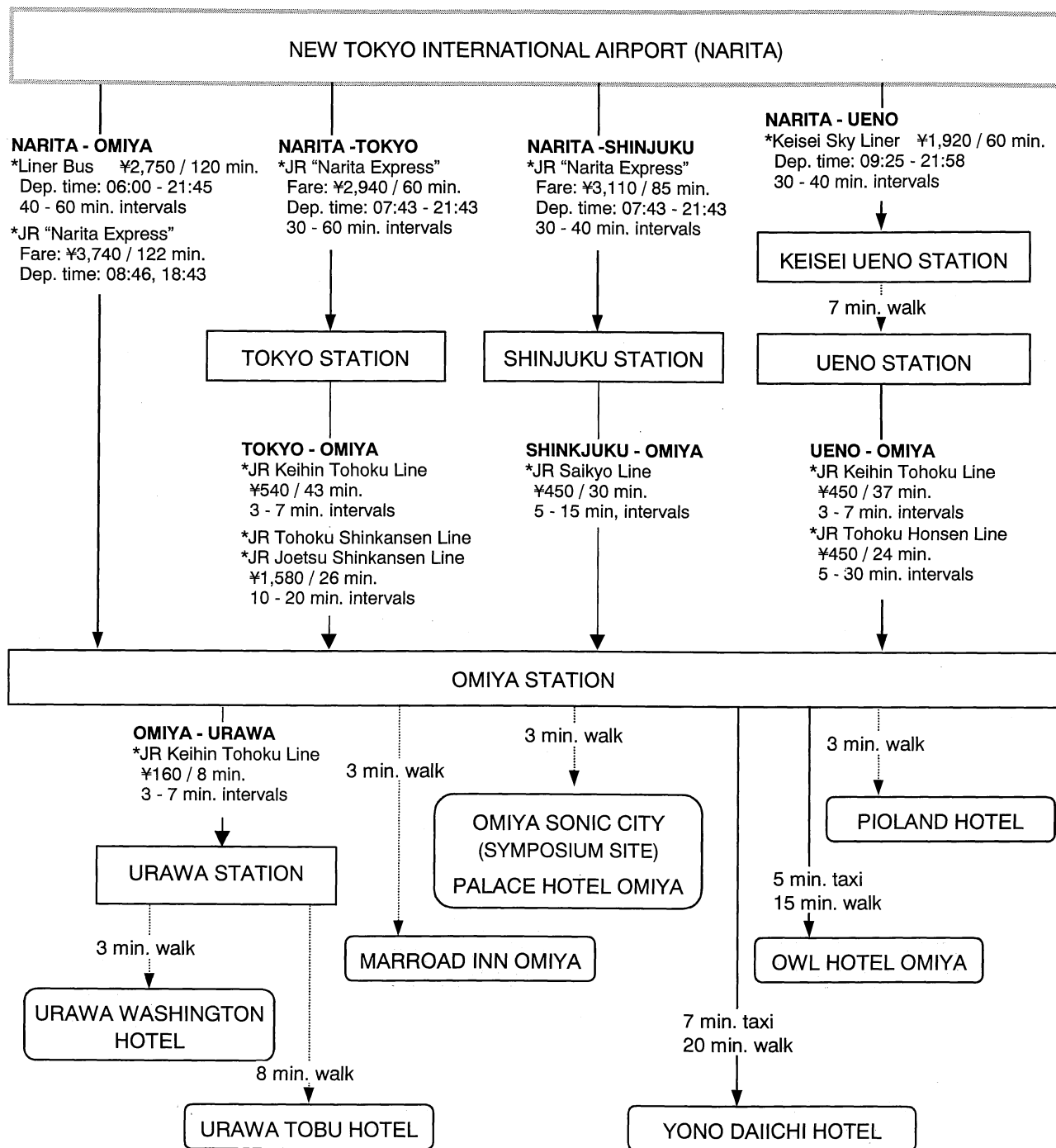


- ① OMIYA PIOLAND HOTEL
- ② SEIBU DEPT. STORE
- ③ TAKASHIMAYA DEPT. STORE
- ④ OMIYA CYTY HALL
- ⑤ OWL HOTEL OMIYA
- ⑥ KEIHIN TOHOKU LINE
- ⑦ JR OMIYA STATION
- ⑧ TOHOKU AND JOETSU SHINKANSEN
- ⑨ MARUI DEPT. STORE
- ⑩ MARROAD INN OMIYA
- ⑪ DAIEI SUPERMARKET
- ⑫ TOKYO SOWA BANK
- ⑬ PALACE HOTEL OMIYA
- ⑭ SOGO DEPT. STORE
- ⑮ OMIYA RED CROSS HOSPITAL
- ⑯ SAIKYOÛ LINE
- ⑰ KITA-YONO STATION
- ⑱ HIGH SCHOOL
- ⑲ YONO DAI-ICHI HOTEL

■ Urawa Area



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| ① URAWA TOBU HOTEL | ① JUNIOR HIGH SCHOOL |
| ② URAWA WASHINGTON HOTEL | ② BESSHONUMA PARK |
| ③ ISETAN DEPT. STORE | ③ OJI SHINKIN BANK |
| ④ COMMUNITY PLAZA-CORSO | ④ NAKA-URAWA STATION |
| ⑤ ASAHI BANK | ⑤ URAWA STATION |
| ⑥ SAITAMA HALL | ⑥ TOHOKU HONSEN LINE |
| ⑦ SAITAMA PREFECTURAL OFFICE | ⑦ TOHOKU AND JOETSU SHINKANSEN |
| ⑧ PUBLIC PROSECUTOR'S OFFICE | |



(as of April, 1999)

