

The top of the page features a banner with a light green background on the left containing the text 'ICPM5' in a dark grey font, where the '5' is a larger, vibrant green. To the right is a photograph of bright green leaves. The main body of the page has a light green background with a repeating geometric pattern of interlocking lines.

ICPM5

# **5th International Conference on Plasma Medicine (ICPM5)**

**PROGRAM**

**Nara, Japan  
May 18-23, 2014**



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# Welcome to ICPM5

On behalf of the International Society of Plasma Medicine, I am delighted to welcome you to the 5th International Conference on Plasma Medicine (ICPM5), which will be held from the 18th to the 23rd of May, 2014, in Nara, Japan.

The ICPM is a full-week conference this time (one day longer than the previous one) as we anticipate having more presentations and longer discussion time among participants during the conference. The field of "plasma medicine" is growing rapidly and we hope that the ICPM5 will provide an ideal venue for the exchange of new ideas and information, and also support the initiation or further development of international collaborations among those who work in this multidisciplinary field.

Let me briefly introduce you to the city of Nara. It is located in the Kansai region (central west) of Japan, close to Osaka and Kyoto. Nara was the capital of Japan from 710 to 784, prior to Kyoto (794-1868), during which the framework of the national government of Japan was being consolidated. It was also a city of international cultures, with strong connections with Korea, China, Middle East, and even Europe through the Silk Road. Indeed the conference venue (Nara Prefectural New Public Hall) is surrounded by historic monuments of ancient Nara, UNESCO World Heritage. It seems to me that holding the ICPM5 here in Nara at this juncture signifies our aim to strengthen the foundation of emerging field of plasma medicine under truly international collaborations.

Satoshi Hamaguchi  
Chair, ICMP5



## 1. Committees

### **International Scientific Committee**

Farzaneh Arefi-Khonsari	Paris, France
Alexander Dolgopolsky	Philadelphia, USA
Pietro Favia	Bari, Italy
Alexander Fridman	Philadelphia, USA
Gennady Friedman	Philadelphia, USA
David Graves	Berkeley, USA
Satoshi Hamaguchi	Osaka, Japan (Vice Chair)
Michael Kong	Norfolk, USA
Gerrit Kroesen	Eindhoven, Netherlands
Mounir Laroussi	Norfolk, USA
Gregor Morfill	Garching, Germany
Jean-Michel Pouvesle	Orleans, France (Chair)
Richard Satava	Seattle, USA
Victor Vasilets	Moscow, Russia
Klaus-Dieter Weltmann	Greifswald, Germany
Michael Wertheimer	Montreal, Canada

### **Local Organizing Committee**

Satoshi Hamaguchi	Osaka University, Japan (Chair)
Katsuhisa Kitano	Osaka University, Japan (Vice Chair)
Maya Wazumi	Polaris Secretaries Office Co., Ltd., Japan

### **Secretariat**

Polaris Secretaries Office Co., Ltd., Japan

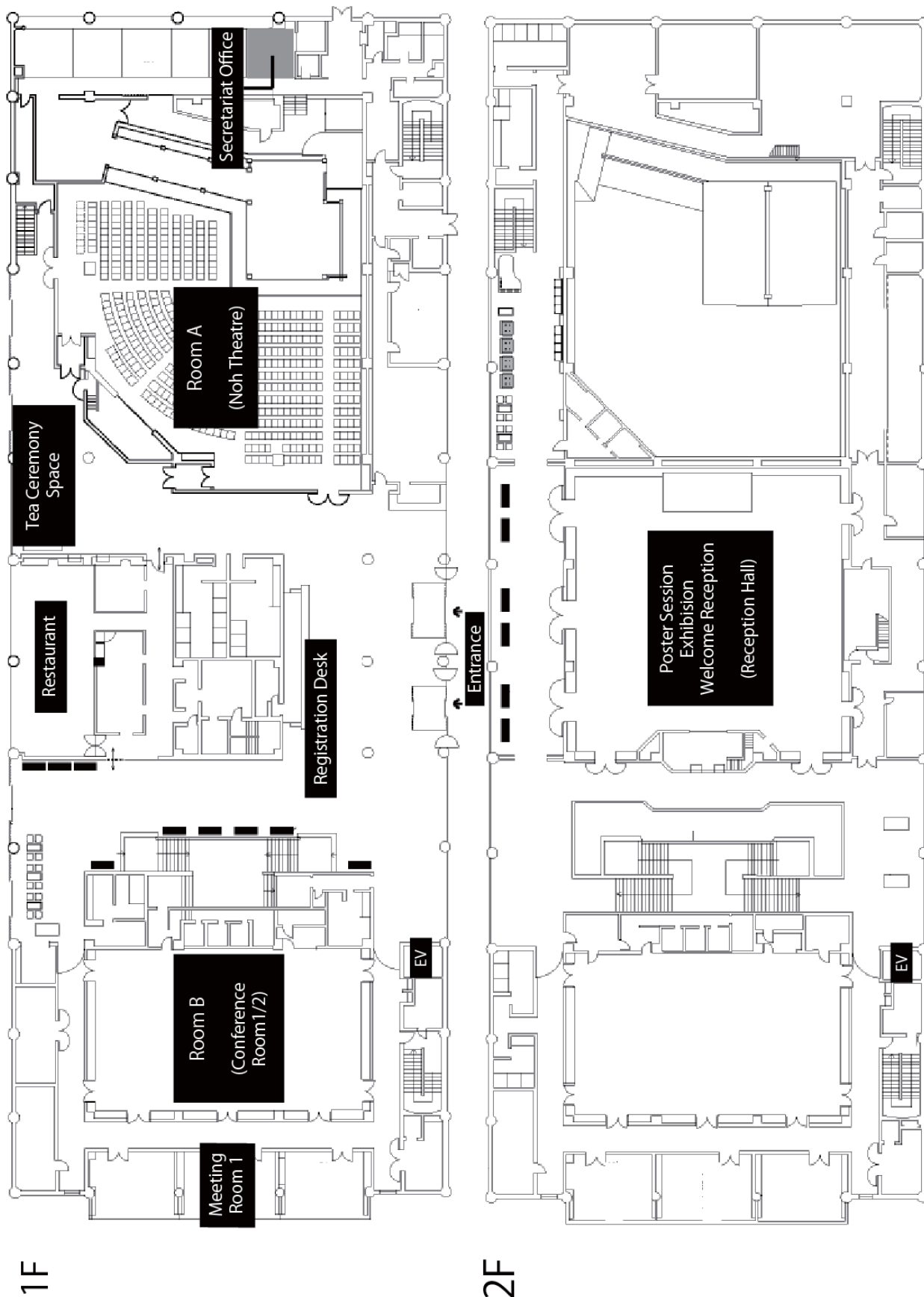
## 2. Time Table

		Sun (May 18)	Mon (May 19)		Tue (May 20)			
			Room A (Noh Theatre)	Room B (Conference Room)	Room A (Noh Theatre)	Room B (Conference Room)		
			<b>Chair: Masaharu Shiratani</b>		<b>Chair: Mark Kushner</b>			
9:00		09:00-09:15	Opening 9:00-9:15 (RoomA)		<Plenary> Eun Ha Choi 9:00-9:45 (Room A)		09:00-09:45	
9:30		09:15-10:00	<Plenary> Masaru Hori 9:15-10:00 (Room A)		<Tutorial> David Graves 9:45-10:15 (Room A)		9:45-10:15	
10:00		10:00-10:20	Break (20min)		Group Photo and Break (20min)		10:15-10:35	
10:15		10:20-10:50	<b>Chair: Kai Mazur</b> <Invited> Hans-Robert Metelmann 10:20-10:50	<b>Chair: Victor Vasilets</b> <Invited> Masaharu Shiratani 10:20-10:50	<b>Chair: Svetlana A. Ermolaeva</b> <Invited> Akira Myoui 10:35-11:05	<b>Chair: Farzaneh Arefi-Khonsari</b> <Invited> Krasimir Vasilev 10:35-11:05	10:35-11:05	
		10:50-11:20	<Invited> Tomoko Oshima 10:50-11:20	<Invited> Steven Shannon 10:50-11:20	<Invited> Georg Isbary 11:05-11:35	<Invited> Cristina Canal 11:05-11:35	11:05-11:35	
11:00		11:20-11:35	<Invited> Julia Bandow 11:20-11:50	Jean-Michel Pouvesle	<Invited> Jeniffer Shin 11:35-12:05	<Invited> Fabio Palumbo 11:35-12:05	11:35-12:05	
11:30		11:35-11:50	Gregory Fridman	Kim Rouven Liedtke	<Invited> Jing Fang 12:05-12:35	<Invited> Sudhir Bhatt 12:05-12:35	12:05-12:35	
12:00		11:50-12:05	Uta Schnabel	Seth Norberg				
		12:05-12:20	Kamonporn Panngom	Tomy Abuzairi				
		12:20-12:35	Lunch Break 12:35-14:00		Lunch Break 12:35-14:00	BoD meeting 13:00- (MTG Room 1)		
13:00		12:35-14:00						
13:30		14:00-15:45	<b>Chair: Katsuhisa Kitano</b>		<b>Chair: Katsuhisa Kitano</b>		14:00-15:45	
14:00			Poster Session 14:00-15:45 (Reception Hall)		Poster Session 14:00-15:45 (Reception Hall)		Tea Ceremony	
15:00		14:45-16:00	Break (15min)		Break (15min)		14:45-16:00	
15:30			<b>Chair: Richard Satava</b> Simon Schneider	<b>Chair: Eric Robert</b> Jong-Shinn Wu	<b>Chair: Klaus-Dieter Weltmann</b> <Invited> Lars Ivo Partecke 16:00-16:30	<b>Chair: Pietro Favia</b> Yuichi Setsuhara	16:00-16:15	
16:00		16:00-16:15	Endre J. Szili	Han S. Uhm		Yong Wang	16:15-16:30	
		16:15-16:30	Chanchai Chutsirimongkol	Yasushi Nishida	<i>Special Session</i> "COST Activities Overview" 16:30-17:50	Robert D. Short	16:30-16:45	
	Registration 16:30-	16:30-16:45	<i>Special Session</i> "Challenges in Industry" 16:45-18:05	Gyungsoon Park	Miles Turner	Anchu Viswan	16:45-17:00	
17:00		16:45-18:05	Amnon Lam	Hachiro Yasuda	Deborah O'Connell	Farazaneh Arefi-Khonsari	17:00-17:15	
	Welcome Reception		Miriam Mann	Daniela Boehm	Kai Masur	Beate Haertel	17:15-17:30	
			Tetsuji Shimizu	Masafumi Ito	Stephan Reuter	Yoko Yamanishi	17:30-17:45	
			Lionel Duvillaret	Taichi Miura		Kaori Sano	17:45-18:00	
18:00						BoD meeting 18:00- (MTG Room 1)	18:00-	
19:00								
20:00								

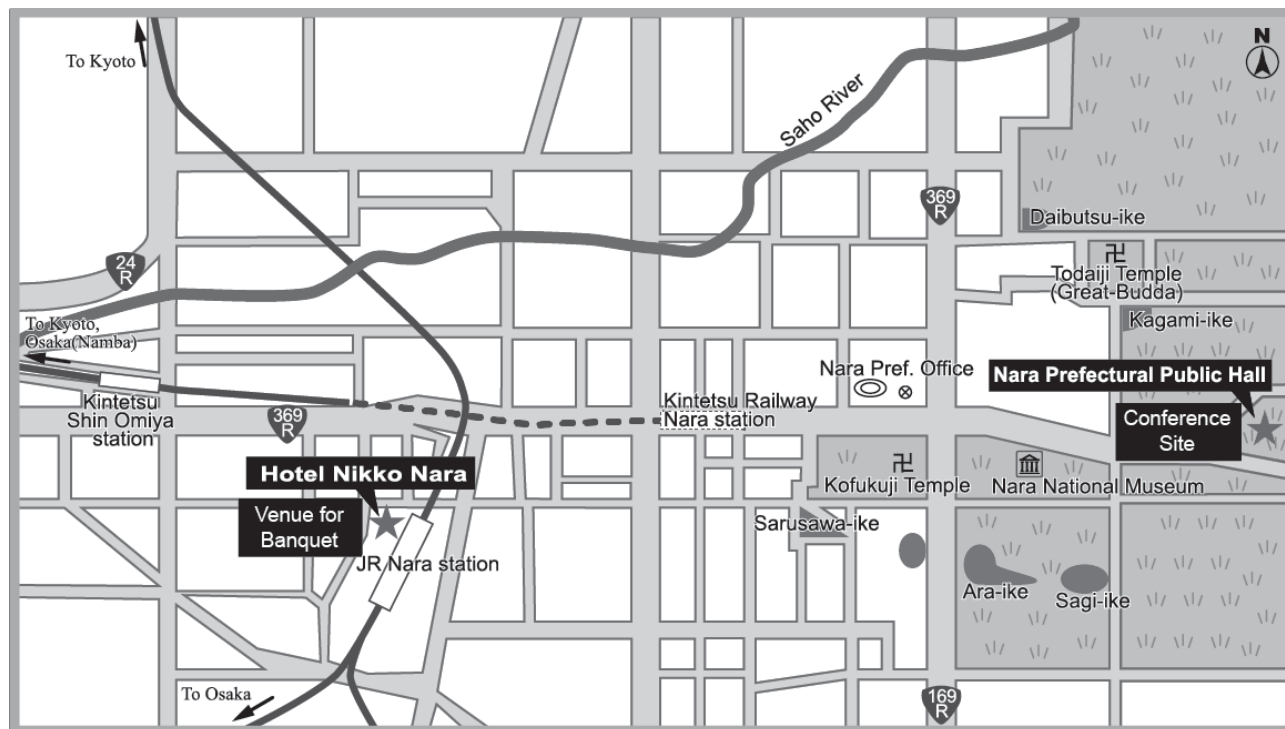


	Wed (May 21)			Thu (May 22)			Fri (May 23)		
	Room A (Noh Theatre)	Room B (Conference Room)		Room A (Noh Theatre)	Room B (Conference Room)		Room A (Noh Theatre)	Room B (Conference Room)	
	<b>Chair: William Graham</b>			<b>Chair: Jean-Michel Pouvesle</b>			<b>Chair: David Graves</b>	<b>Chair: Toshiro Kaneko</b>	
09:00-09:45	<Plenary> Michael Keidar 9:00-9:45 (Room A)		9:00-9:45	<Plenary> Jürgen Lademann 9:00-9:45 (Room A)		9:00-9:30	<Invited> Sophie Lerouge 9:00-9:30	<Invited> Peter Bruggeman 9:00-9:30	
9:45-10:05	Break (20min)		9:45-10:15	<Tutorial> Klaus-Dieter Weltmann 9:45-10:15 (Room A)		9:30-10:00	<Invited> Sarah Cousty 9:30-10:00	<Invited> Valery A. Titov (*) 9:30-10:00	
10:05-10:35	<b>Chair: Georg Isbary</b>	<b>Chair: Katsuhisa Kitano</b>		Break (20min)		10:00-10:20	Break (20min)		
	<Invited> Jürgen Schlegel 10:05-10:35	<Invited> Vittorio Colombo 10:05-10:35	10:15-10:35			10:20-10:35	Kenji Ishikawa	Stephan Reuter	
10:35-11:05	<Invited> Hiroaki Kajiyama 10:35-11:05	<Invited> Xinpei Lu 10:35-11:05	10:35-11:05	<b>Chair: Alexander Fridman</b>	<b>Chair: Timo Gans</b>	10:35-10:50	Kohei Soga	Timo Gans	
11:05-11:35	<Invited> Kiwon Song 11:05-11:35	<Invited> Eric Robert 11:05-11:35	11:05-11:35	<Invited> Yuzuru Ikehara 10:35-11:05	<Invited> Mark Kushner 10:35-11:05	10:50-11:05	Hiromasa Tanaka	Helena Tresp	
11:35-13:00	Lunch Break 11:35-13:00		11:05-11:35	<Invited> William Graham 11:05-11:35	<Invited> Anne Bourdon 11:05-11:35	11:05-11:20	Michael V. Autieri	Petr Lukes	
	Conference Excursion		11:35-12:05	<Invited> Theresa Freeman 11:35-12:05	<Invited> Zdenko Machala 11:35-12:05	11:20-11:35	Nozomi Takeuchi	Sybille Hasse	
			12:05-12:35	General Assembly 12:05-12:35 (Room A)		Closing 11:35-12:10 (Room A)		(*) Presented by Svetlana A. Ermolaeva	
			12:35-14:00	BoD meeting if needed					
				Lunch Break 12:35-14:00					
				<b>Chair: Stephan Reuter</b>	<b>Chair: Zdenko Machala</b>				
			14:00-14:15	Jörn Winter	Rene Bussiahn				
			14:15-14:30	João Santos Sousa	Oleg Petrov				
			14:30-14:45	Toshiro Kaneko	Xiao Tan				
			14:45-15:00	Kristian Wende	Takehiko Sato				
			15:00-15:15	Jue Zhang	Norimitsu Takamura				
	15:15-15:30	Svetlana A. Ermolaeva	Tomoko Ito						
	15:30-15:45	Matteo Gherardi	David B. Graves						
	15:45-16:00	Jan-Wilm Lackmann	Tomoyuki Murakami						
	16:00-16:30	Break (30min)							
	16:30-16:45	<b>Chair: Tomoyuki Murakami</b>	<b>Chair: Deborah O'Connell</b>						
		Katsuhisa Kitano	Miles Turner						
	16:45-17:00	Kai Masur	Christof C. W. Verlackt						
	17:00-17:15	Atsushi Tani	Tatsuru Shirafuji						
	17:15-17:30	Awards Ceremony							
		move to Hotel Nikko							
	18:45-21:30	Conference Banquet (Hotel Nikko)							

### 3. Floor Plan



## 4. Guide to Facilities



### **Nara Prefectural Public Hall: Conference Site**

101, Kasugano-cho, Nara-shi, Nara, 630-8212, Japan

TEL: 0742-27-2630

Venue for Oral Sessions: Room A (Noh Theatre),  
Room B (Conference Room 1/2)

Venue for Poster Sessions: Reception Hall

### **Hotel Nikko Nara**

8-1, Sanjo Hommachi, Nara-shi, Nara, 630-8122, Japan

TEL: 0742-35-8831

Venue for Banquet (Thursday, May 22): Hiten (4th Floor)

## 5. Session Overview

### **Oral Sessions**

*Plenary Lectures* are delivered in the morning from Monday 19th to Thursday 22th. The lecture room is Room A (Noh Theatre).

*Invited Lectures* and *Contributed Oral Presentations* are delivered in the two lecture rooms (Room A and Room B) in parallel.

### **Poster Sessions**

Poster Sessions are held in the Reception Hall at 14:00-15:45 on Monday 19th and Tuesday 20th.

### **Special Session “Challenges in Industry”**

In *the Special Session “Challenges in Industry”*, activities and experiences associated with commercialization of plasma medicine are discussed by specially appointed speakers. It is held at 16:45 - 18:05 on Monday 19th.

### **Special Session “COST Activities Overview”**

In *the Special Session “COST Activities Overview”*, COST (European Cooperation in Science and Technology) activities of MPNS (Materials, Physics, and Nanosciences) COST Action MP1101 “Biomedical Applications of Atmospheric Pressure Plasma Technology” and CMST (Chemistry and Molecular Sciences and Technologies) COST Action TD1208 “Electrical discharges with liquids for future applications” related to plasma medicine are reported by representatives of the COST actions. It is held at 16:30 – 17:50 on Tuesday 20th.

## 6. Social Programs

### **Welcome Reception**

Date: 17:00-19:00, Sunday, May 18

Venue: Nara Prefectural New Public Hall, Reception Hall

Please join us for a drink at the welcome reception to be held on the Conference site.

### **Opening Ceremony**

Date: 9:00-9:15. Monday, May 19

Venue: Nara Prefectural New Public Hall, Noh Theatre

### **Japanese Tea Ceremony**

Date: Afternoon, Monday & Tuesday, May 19 & 20

Venue: Nara Prefectural New Public Hall, Side of Noh Theatre

Fee: Free of charge

Please join the ceremony and taste traditional green tea and some sweets.

The ceremony will be performed by Chugu-ji Goryu School passed down in Nara Chugu-ji Temple

The Japanese tea ceremony is called *Cha-no-yu*, *Sado* or simply *Ocha* in Japanese.

It is a choreographic ritual of preparing and serving Japanese green tea, called *Matcha*, together with traditional Japanese sweets to balance with the bitter taste of the tea.

### **Conference Excursions**

May 21(Wednesday) afternoon, there are three kinds of excursions that will be dedicated to the visit of World heritage of Kyoto or Nara. Prior reservation is required.

#### **【CE-1 Kyoto World Heritage Tour】**

Date: 13:00-21:00 Wednesday, May 21

Fee: 12,000 JPY

13:00 Nara Prefectural New Public Hall === 14:30 Kinkakuji === 16:15 Heian Jingu Shrine (from a bus window) === 16:30 Kiyomizu-dera === 18:30 Dinner (Kyoto Kokusai Hotel) === 21:00 Kintetsu Nara station, JR Nara station

- The price includes a fee for an English-speaking guide, chartered bus fee, dinner and the entrance fees.
- The minimum number of participants: 30 persons

### **【CE-2 Nara World Heritage Tour】**

Date: 13:00-18:15 Wednesday, May 21

Fee: 3,500 JPY

13:00 Nara Prefectural New Public Hall === 13:30 Toshodaiji=== 15:15 Horyuji === 18:15  
Kintetsu Nara station, JR Nara station

- The price includes a fee for an English-speaking guide, chartered bus fee and the entrance fees.
- The minimum number of participants: 30 persons

### **【CE-3 Nara walking Tour】**

Date: 13:00-16:00 Wednesday, May 21

Fee: 2,000 JPY

13:00 Nara Prefectural New Public Hall === 13:10 Kofukuji === 14:10 Sarusawa lake <Nara  
machi walk> Old entertainment district, Old "machiya" townhouses, Private folklore museum  
=== 16: 00 Kintetsu Nara station, JR Nara station

- The price includes a fee for an English-speaking guide and the entrance fee.
- The minimum number of participants: 15 persons

### **Conference Banquet**

Prior reservation is required.

Date: 18:45-21:30, Thursday, May 22

Venue: Hotel Nikko Nara, Hiten (4th floor)

Fee: 10,000 JPY

A sit-down dinner of classic western cuisine with authentic local ingredients in a banquet hall.

### **Closing Ceremony**

Date: 11:50-12:20, Friday, May 23

Venue: Nara Prefectural New Public Hall, Noh Theatre

## 7. General Information

### **Registration Desks**

- Pre-Registration Desk
- On-Site Registration Desk
- Cashier / Hotel & Excursions / JTB Desk

For arrangements of accommodations and personal sightseeing tours, please consult the JTB Desk.

### **Secretariat Office**

Location:

Greenroom in the back of Conference Hall (Noh Theatre)

Telephone Number (pilot number):

0742-27-2630

### **Lunch**

Boxed lunches, called "Bento", will be sold at the conference site.

\* Vegetarian menu will be available.

One can have lunch in Room B (Conference Room 1/2) during lunch time. (No eating and drinking is allowed in Room A (Noh Theatre)). If the weather is nice, the park (Nara Park) surrounding the Conference Hall may be a nice place to have lunch.

Several restaurants are also available within walking distance.

### **Lost and Found**

If you lose or find an item, please stop by the Secretariat Office: Greenroom in the back of Conference Hall (Noh Theatre).

### **First Aid**

If you require any medical assistance during

the Conference, please contact the Secretariat Office staff immediately.

### **Wi-Fi Area**

Free Wi-Fi is available in the Conference Hall.

### **Message Board**

Messages and general information from the Secretariat Office will be posted on the message board near the Registration Desk.

### **Taxi**

If a taxi is required, please contact the Registration Desk.

### **Restaurant in the Conference Hall**

QUEEN ALICE NARA GEIHINKAN

Open: 11:00-17:00 (Lunch and Tea)

### **Smoking Policy**

Smoking is not permitted in Nara Prefectural New Public Hall except in designated areas.

### **Tipping**

In general, tipping is not common in Japan. However, in major hotels and higher-class restaurants, it is common that a 10 to 15 % service charge is automatically added to the bill.

### **Insurance**

The organizer does not accept responsibility for personal injuries and material damages or loss occurring during the Conference. Participants are advised to take their own insurance.

**Hotels (Telephone Number)**

Hotel Nikko Nara (0742-35-8831)

Nara Hotel (0742-26-3300)

Comfort Hotel Nara (0742-25-3211)

Nara Washington Hotel Plaza  
(0742-27-0410)

Hotel Fujita Nara (0742-23-8111)

Sun Hotel Nara (0742-25-2111)

When calling from outside Japan, please replace the first 0 with 81 (the country code).



## 8. Instructions for Presenters

### Oral Presentation

- The presentation time is as follows (including the time for you to connect your PC to the projector):

- Plenary	45 min	(40 min presentation and 5 min discussion)
- Invited	30 min	(25 min presentation and 5 min discussion)
- Tutorial	30 min	(25 min presentation and 5 min discussion)
- Oral (Contributed)	15 min	(12 min presentation and 3 min discussion)
- Industrial Session	20 min	(15 min presentation and 5 min discussion)
- COST Session	20 min	(15 min presentation and 5 min discussion)
- Shoes are NOT allowed on the Noh Theater stage, so please be kind to take off your shoes and use slippers (provided there) when you make your presentation in the Noh Theatre (Room A).

### Poster Presentation

- Please put up your poster before your poster session starts. Your poster board will be available around noon on the day of your poster presentation.
- Please remove your poster by 17:00 on the day of your poster presentation. Posters left on the board after this time may be removed by the Conference staff.

## 9. Sponsors

### **Co-Sponsored by**

- Grant-in-Aid for Scientific Research on Innovative Areas: Plasma Medical Innovation (Ministry of Education , Culture, Sports, Science and Technology, Japan)
- Osaka University

### **Endorsed by**

- American Physical Society (APS)
- American Vacuum Society (AVS)
- Division of Plasma Electronics, Japan Society of Applied Physics (JSAP)
- The IEEE Nuclear and Plasma Sciences Society (IEEE NPSS)
- Japan Society of Plasma Science and Nuclear Fusion Research (JSPF)
- Physical Society of Japan (JPS)

### **Corporate Sponsors**

- IOP Publishing
- Kepteos

## Programs

### (1) Oral Sessions



Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Masaharu Shiratani</b>				
<b>Plenary</b>				
Room A	09:15-10:00	19-PL01	Masaru Hori (Nagoya University, Japan)	Bridge the Gap between Plasma and Medical Sciences towards Future Medical Care
<b>CHAIR: Kai Mazur</b>				
<b>Invited</b>				
Room A	10:20-10:50	19-AI01	Hans-Robert Metelmann (Greifswald University, Germany)	Plasma-Jet supported surgery of advanced head and neck cancer - Requirements and first steps for proof of concept
	10:50-11:20	19-AI02	Tomoko Ohshima (Tsurumi University, Japan)	Possible dental applications of plasma-based sterilization using the reduced pH method : treatment of dental caries and root canal infection
	11:20-11:50	19-AI03	Julia Bandow (Ruhr University Bochum, Germany)	Modulation of protein activity by atmospheric pressure plasmas
<b>Oral (Contributed)</b>				
Room A	11:50-12:05	19-AO01	Gregory Fridman (Drexel Plasma Institute, USA)	Effect of Reactive Nitrogen Species Produced in Water by Reverse Vortex Gliding Arc Plasmatron on Plant Germination and Growth Rate
	12:05-12:20	19-AO02	Uta Schnabel (INP Greifswald e.V., Germany)	Non-thermal atmospheric pressure plasmas for food decontamination
	12:20-12:35	19-AO03	Kamonporn Panngom (Plasma Bioscience Research Center, Kwangwoon University, Republic of Korea)	Induction of Fungal Cell Death and Enhancement of Host Resistance by Non-thermal Dielectric Barrier Discharge (DBD) Plasma
<b>CHAIR: Richard Satava</b>				
<b>Oral (Contributed)</b>				
Room A	16:00-16:15	19-AO04	Simon Schneider (Ruhr-University Bochum, Germany)	Detailed Study of Plasma-Surface Interactions with an Atmospheric Pressure Plasma Jet (APPJ) as Selective Source for O, O <sub>3</sub> and N
	16:15-16:30	19-AO05	Endre J. Szili (University of South Australia, Australia)	Synthetic biological sensors and their role in unraveling mechanisms of plasma medicine
	16:30-16:45	19-AO06	Chanchai Chutsirimongkol (Thailand Center of Excellent for Life Science, Thailand)	Non-Thermal Plasma for Acne and Aesthetic Skin Improvement

Monday, May 19

<b>Venue</b>	<b>Time</b>	<b>Abstract No.</b>	<b>Presenting Author (Affiliation, Country)</b>	<b>Title</b>
<b>Special Session: "Challenges in Industry"</b>				
Room A	16:45-17:05	19-AO07	Ammon Lam (IonMed LTD., Israel)	Preliminary Evaluation of Novel Skin Closure of Pfannenstiel Incisions Using Cold Helium Plasma and Chitosan Films
	17:05-17:25	19-AO08	Miriam Mann (Leibniz Institute for Plasma Science and Technology (INP Greifswald), Germany)	Standards in Plasma Medicine: Development, Contents and Importance of the first German DIN Specification.
Room A	17:25-17:45	19-AO09	Tetsuji Shimizu (terraplasma GmbH, Germany)	Activities of terraplasma GmbH
	17:34-18:05	19-AO10	Lionel Duvillaret (Kapteos, France)	Cold Plasma Diagnostic Using Vectorial Electrooptic Probe

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Victor Vasilets</b>				
<b>Invited</b>				
Room B	10:20-10:50	19-BI01	Masaharu Shiratani (Kyushu University, Japan)	Enhancement of food energy efficiency using plasmas
	10:50-11:20	19-BI02	Steven Shannon (North Carolina State University, U.S.A.)	Large scale low operating cost plasma sources for agricultural water treatment
<b>Oral (Contributed)</b>				
Room B	11:20-11:35	19-BO01	Jean-Michel Pouvesle (Université d'Orléans, France)	<i>In vivo</i> tissue oxygenation triggered through Plasma Gun treatment
	11:50-12:05	19-BO02	Kim Rouven Liedtke (University of Greifswald, Germany)	The effect of plasma activated medium on pancreatic cancer cells
	11:35-11:50	19-BO03	Mohammed Yousfi (CNRS, Toulouse University, France)	Genotoxic and cytotoxic effects on multi cellular tumor spheroids exposed to low temperature plasmas
	12:05-12:20	19-BO04	Seth Norberg (University of Michigan, USA)	Controlling Plasma Jets with Gas Shields and Their Interactions with Water Covered Tissue
	12:20-12:35	19-BO05	Tomy Abuzairi (Shizuoka University, Japan)	Surface Modification of Dot-arrayed Carbon Nanotubes for Multifunctional Bio-chip Sensors Using Atmospheric Pressure Plasma Jet
<b>CHAIR: Eric Robert</b>				
<b>Oral (Contributed)</b>				
Room B	16:00-16:15	19-BO06	Jong-Shinn Wu (National Chiao Tung University, Taiwan)	Hybrid Plasma Fluid Modeling and Gas Flow Simulation of Atmospheric-Pressure Plasmas
	16:15-16:30	19-BO07	Han S. Uhm (Kwangwoon University, Republic of Korea)	Mass decontamination of biological warfare agents by plasmas
	16:30-16:45	19-BO08	Yasushi Nishida (National Cheng Kung University, Taiwan)	Air Cleaning System with Use of High Electric Field Plasma without Discharges
	16:45-17:00	19-BO09	Gyungsoon Park (Kwangwoon University, Republic of Korea)	Ionic strength of solutions can modulate the anti-microbial effects of non thermal atmospheric pressure plasma
	17:00-17:15	19-BO10	Hachiro Yasuda (Toyohashi University of Technology, Japan)	Analysis of Plasma-Decontamination Process in Solution Using Bacterial Spores Differentially Labeled with GFP
	17:15-17:30	19-BO11	Daniela Boehm (Dublin Institute of Technology, Ireland)	In-package dielectric barrier discharge atmospheric cold plasma (DBD ACP) for inactivation of <i>Pseudomonas aeruginosa</i> biofilms

Monday, May 19

<b>Venue</b>	<b>Time</b>	<b>Abstract No.</b>	<b>Presenting Author (Affiliation, Country)</b>	<b>Title</b>
Room B	17:30-17:45	19-BO12	Masafumi Ito (Meijo University, Japan)	Inactivation process of <i>P. digitatum</i> spores evaluated by dose of ground-state atomic oxygen
	17:45-18:00	19-BO13	Taichi Miura (Soka University, Japan)	Effects of Low-Temperature Atmospheric-Pressure Plasma Irradiation on the Differentiation of Mouse Embryonic Stem Cells



Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Mark Kushner</b>				
<b>Plenary</b>				
Room A	09:00-09:45	20-PL01	Eun Ha Choi (Kwangwoon University, Korea)	Plasma Physics and Chemistry for Biological Cell Interactions and Healing Diseases by Nonthermal Atmospheric Pressure Plasma
<b>Tutorial</b>				
Room A	09:45-10:15	20-AT01	David Graves (University of California at Berkeley, USA)	Mechanisms of plasma biomedicine: what do we know?
<b>CHAIR: Svetlana Ermolaeva</b>				
<b>Invited</b>				
Room A	10:35-11:05	20-AI01	Akira Myoui (Osaka University Hospital, Japan)	Biological Effect of Plasma Processing on Ceramics Artificial Bone
	11:05-11:35	20-AI02	Georg Isbary (Department of Dermatology, Hospital Schwabing, Germany)	Cold atmospheric plasmas for dermatologic and oncologic purposes
	11:35-12:05	20-AI03	Jennifer Shin (KAIST, KOREA)	HEALING OF WOUNDS BY ATMOSPHERIC PRESSURE PLASMA
	12:05-12:35	20-AI04	Jing Fang (Peking University, China)	Researches on Applying Atmospheric-Pressure Non-thermal Plasmas to Dental Medicine
<b>CHAIR: Klaus-Dieter Weltmann</b>				
<b>Invited</b>				
Room A	16:00-16:30	20-AI05	Lars Ivo Partecke (University of Greifswald, Germany)	Treatment options of atmospheric pressure plasma in GI-Cancer
<b>Special Session: "COST Activities Overview"</b>				
Room A	16:30-16:50	20-AO01	Miles Turner (Dublin City University, Ireland)	COST Action MP1101: Biomedical Applications of Atmospheric Pressure Plasmas
	16:50-17:10	20-AO02	Deborah O'Connell (University of York, UK)	An atmospheric pressure plasma reference source and protocols for biomedical applications
	17:10-17:30	20-AO03	Kai Masur (INP Greifswald, Germany)	Biological Standard Tests for an Evaluation of Different Plasma Sources and Treatment Regimes
	17:30-17:50	20-AO04	Stephan Reuter (ZIK plasmatis at the INP Greifswald, Germany)	Introduction to the EU COST Action TD1208 - Electrical discharges with liquids for future applications

Tuesday, May 20

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Farzaneh Arefi-Khonsari</b>				
<b>Invited</b>				
Room B	10:35-11:05	20-BI01	Krasimir Vasilev (University of South Australia, Australia)	Nanoengineered plasma polymer films for antibacterial coatings
	11:05-11:35	20-BI02	Cristina Canal (Universitat Politècnica de Catalunya, Spain)	Plasma modification of biomaterials for hard and soft tissue repair: relevance for drug delivery
	11:35-12:05	20-BI03	Fabio Palumbo (CNR-IMIP Bari, Italy)	Atmospheric plasma deposition of biocomposite coatings
	12:05-12:35	20-BI04	Sudhir Bhatt (University Pierre and Marie CURIE, France)	Nanometric thick copolymers elaborated by low and atmospheric pressure non-equilibrium plasmas for biomedical applications
<b>CHAIR: Pietro Favia</b>				
<b>Oral (Contributed)</b>				
Room B	16:00-16:15	20-BO01	Yuichi Setsuhara (Osaka University, Japan)	Behaviors of Atmospheric-Pressure Discharge and its Interaction with Soft Materials as a Basis for Plasma Medicine
	16:15-16:30	20-BO02	Yong Wang (University of Missouri, USA)	Non-thermal Atmospheric Plasmas in Dental Restoration: Improved Resin Adhesive Penetration
	16:30-16:45	20-BO03	Robert D. Short (University of South Australia, Australia)	A biological "tissue model" to study the plasma delivery of reactive oxygen species
	16:45-17:00	20-BO04	Anchu Viswan (Shizuoka University, Japan)	Simulation Study of Virus Concentration Using Plasma-functionalized Graphite-encapsulated Magnetic Nanoparticles with Biotin-Avidin System
	17:00-17:15	20-BO05	Farazaneh Arefi-Khonsari (University Pierre and Marie Curie, France)	Biodegradable copolymer coatings deposited by low pressure plasma polymerization for controlled drug delivery - first <i>in vivo</i> results
	17:15-17:30	20-BO06	Beate Haertel (University of Greifswald. Institute of Pharmacy, Germany)	Plasma-based stimulation of biotechnological processes in medicinal mushroom mycelia
	17:30-17:45	20-BO07	Yoko Yamanishi (Shibaura Institute of Technology, Japan)	Electrically-driven micro-bubbles assisted protein crystallization
	17:45-18:00	20-BO08	Kaori Sano (Department of Environmental and Life Sciences, Toyohashi University of Technology, Japan)	Measurement of reactive oxygen species in plasma-treated water

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: William Graham</b>				
<b>Plenary</b>				
Room A	09:00-09:45	21-PL01	Michael Keidar (George Washington University, USA)	Towards understanding mechanism of cold atmospheric plasma in cancer treatment
<b>CHAIR: Georg Isbary</b>				
<b>Invited</b>				
Room A	10:05-10:35	21-AI01	Jürgen Schlegel (Technische Universität München, Germany)	Plasma Cancer Therapy - state of the art and path forward
	10:35-11:05	21-AI02	Hiroaki Kajiyama (Department of Obstetrics and Gynecology, Nagoya University Graduate School of Medicine, Japan)	New strategic plasma therapy for advanced and/or refractory epithelial ovarian cancer
	11:05-11:35	21-AI03	Kiwon Song (Yonsei University, South Korea)	Non-thermal atmospheric pressure plasma preferentially induces apoptosis in p53-mutated cancer cells by activating ROS-responsive pathways
<b>CHAIR: Katsuhisa Kitano</b>				
<b>Invited</b>				
Room B	10:05-10:35	21-BI01	Vittorio Colombo (Alma Mater Studiorum - University of Bologna, Italy)	Investigation of the effectiveness of a low power inductively coupled plasma source for biomedical applications
	10:35-11:05	21-BI02	XinPei Lu (HuaZhong University of Science and Technology, P.R. China)	Room Temperature Plasma Jets and Active Species Diagnostics
	11:05-11:35	21-BI03	Eric Robert (University of Orleans, France)	Understanding of gas flow, plasma and target interplay: a key prerequisite for the optimization of plasma jet treatments

Thursday, May 22

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Jean-Michel Pouvesle</b>				
<b>Plenary</b>				
Room A	09:00-09:45	22-PL01	Jürgen Lademann (Charité-University Medicine Berlin, Germany)	Application of tissue-tolerable plasma in dermatology: Risk assessment and prospects
<b>Tutorial</b>				
Room A	09:45-10:15	22-AT01	Klaus-Dieter Weltmann (Leibniz Institute for Plasma Science and Technology (INP), Germany)	Plasmas sources for medical use
<b>CHAIR: Alexander Fridman</b>				
<b>Invited</b>				
Room A	10:35-11:05	22-AI01	Yuzuru Ikehara (National Institute for Advanced Industrial Science and Technology (AIST), Japan)	An application of low temperature plasma to achieve minimal invasive surgery
	11:05-11:35	22-AI02	William Graham (Queen's University Belfast, UK)	Collaborative studies of a helium-based kHz jet.
	11:35-12:05	22-AI03	Theresa Freeman (Thomas Jefferson University, USA)	Microsecond DBD Plasma for Differentiation, Development and Regeneration
<b>CHAIR: Stephan Reuter</b>				
<b>Oral (Contributed)</b>				
Room A	14:00-14:15	22-AO01	Jörn Winter (Centre for Innovation Competence (ZIK) plasmatis at the INP Greifswald, Germany)	Tracking plasma generated H <sub>2</sub> O <sub>2</sub> from gas into liquid phase and revealing its dominant effect on human skin cells
	14:15-14:30	22-AO02	João Santos Sousa (Laboratoire de Physique des Gaz et des Plasmas, CNRS and Univ. Paris-Sud, France)	Degradation of DNA and Proteins Induced by Microplasma Jets
	14:30-14:45	22-AO03	Toshiro Kaneko (Tohoku University, Japan)	Minimally-Invasive Gene Transfection Using Atmospheric Pressure Plasma
	14:45-15:00	22-AO04	Kristian Wende (INP Greifswald, ZIK plasmatis, Germany)	Differential protein expression and thiol oxidation pattern in human keratinocytes in response to non-thermal plasma to reveal activation route

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
Room A	15:00-15:15	22-AO05	Jue Zhang (Peking University, China)	A genome-wide profiling of response genes in eukaryotic cells to non-thermal atmospheric pressure plasma treatment
	15:15-15:30	22-AO06	Svetlana A. Ermolaeva (Gamaleya Institute of Epidemiology and Microbiology, Russia)	Effects of microwave argon plasma on cell-wall-lacking <i>Mollicutes</i> bacteria
	15:30-15:45	22-AO07	Matteo Gherardi (Alma Mater Studiorum - University of Bologna, Italy)	Non-Thermal Plasma Promotes Apoptosis and Cell-Cycle Arrest in a Lymphoma Cell Line
	15:45-16:00	22-AO08	Jan-Wilm Lackmann (Ruhr University Bochum, Germany)	RNase A is Permanently Inactivated by a Dielectric Barrier Discharge by Chemical Modifications
<b>CHAIR: Tomoyuki Murakami</b>				
	16:30-16:45	22-AO09	Katsuhisa Kitano (Osaka University, Japan)	Cryopreservation of plasma treated water (PTW) for disinfection
	16:45-17:00	22-AO10	Kai Masur (INP Greifswald, Germany)	Modulation of Cell Activities by Changing the Plasma Composition
	17:00-17:15	22-AO11	Atsushi Tani (Osaka University, Japan)	Selective Supply of Active Species using Plasma Treated Water (PTW) for Effective and Safety Disinfection

Thursday, May 22

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Timo Gans</b>				
<b>Invited</b>				
Room B	10:35-11:05	22-BI01	Mark Kushner (University of Michigan, USA)	Progress and Needs in Modeling of Plasma Interactions with Tissue: Wet, Dry, Direct and Indirect
	11:05-11:35	22-BI02	Anne Bourdon (Ecole Centrale Paris, France)	Simulation of atmospheric pressure helium discharges in capillary tubes and in plasma jets
	11:35-12:05	22-BI03	Zdenko Machala (Comenius University, Slovakia)	Identification of RONS in water induced by air plasmas and their biomedical effects
<b>CHAIR: Zdenko Machala</b>				
<b>Oral (Contributed)</b>				
Room B	14:00-14:15	22-BO01	Rene Bussiahn (Leibniz Institute for Plasma Science and Technology (INP Greifswald), Germany)	Plasma therapy for large-scale wound treatments: development of a flexible plasma source
	14:15-14:30	22-BO02	Oleg Petrov (Joint Institute for High temperatures, RAS, Russia)	Cold atmospheric plasma sources, plasma diagnostics and plasma factors at medical applications
	14:30-14:45	22-BO03	Xiao Tan (Huazhong University of Science & Technology, China)	Single-cell-level Mobile Microplasma Jet For Cancer Cell Apoptosis
	14:45-15:00	22-BO04	Takehiko Sato (Tohoku University, Japan)	Generation of micro plasma in water for biomedical applications
	15:30-15:45	22-BO05	Norimitsu Takamura (Kumamoto University, Japan)	Propagation Difference of Atmospheric-pressure Helium Plasma jets Using Different Dielectric Materials
	15:45-16:00	22-BO06	Tomoko Ito (Osaka University, Japan)	Mass spectrometry of ions formed in atmospheric-pressure plasma jets
	15:00-15:15	22-BO07	David B. Graves (University of California at Berkeley, USA)	Atmospheric Pressure Dielectric Barrier Discharges in Air: Chemistry and Antimicrobial Effects
	15:15-15:30	22-BO08	Tomoyuki Murakami (Tokyo Institute of Technology, Japan)	Biologically Relevant Species in Atmospheric Pressure Helium-Oxygen Plasmas Operated in Ambient Air

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Deborah O'Connell</b>				
	16:30-16:45	22-BO09	Miles Turner (Dublin City University, Ireland)	Plasma chemistry modelling in atmospheric pressure plasmas: Errors and uncertainty
	16:45-17:00	22-BO10	Christof C. W. Verlackt (University of Antwerp, Belgium)	Reactive Molecular Dynamics Simulations for the Interaction of Reactive Oxygen Species with Biomolecules
	17:00-17:15	22-BO11	Tatsuru Shirafuji (Osaka City University, Japan)	Numerical Simulation of Electric Double Layer in Contact with DBD - Effects of Mobility and Diffusion Coefficient of Liquid Ions -

Friday, May 23

Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: David Graves</b>				
<b>Invited</b>				
Room A	09:00-09:30	23-AI01	Sophie Lerouge (Ecole de technologie superieure (ETS), Canada)	Primary-amine rich coatings to enhance the biocompatibility of cardiovascular implants
	09:30-10:00	23-AI02	Sarah Cousty (Centre hospitalier universitaire de Toulouse, France)	Medical applications of plasma technology: welcome to the future
<b>Oral (Contributed)</b>				
Room A	10:20-10:35	23-AO01	Kenji Ishikawa (Nagoya University, Japan)	Electron Spin Resonance Study of Plasma-Biological Surface Interactions under Atmospheric Pressure Plasmas
	10:35-10:50	23-AO02	Kohei Soga (Tokyo University of Science, Japan)	Atmospheric Plasma Processing to Form Organic Coating on Ceramic Nanoparticles for Biomedical Imaging
	10:50-11:05	23-AO03	Hiromasa Tanaka (Nagoya University, Japan)	Diagnostics of intracellular signaling systems of glioblastoma brain tumor cells treated with plasma-activated medium
	11:05-11:20	23-AO04	Michael V. Autieri (AJ Drexel Plasma Institute, Drexel University, USA)	Plasma Stimulates Angiogenesis
	11:20-11:35	23-AO05	Nozomi Takeuchi (Tokyo Institute of Technology, Japan)	Two-Dimensional Numerical Simulation of Mass Transfer of Reactive Species through Plasma-Liquid Interface



Venue	Time	Abstract No.	Presenting Author (Affiliation, Country)	Title
<b>CHAIR: Toshiro Kaneko</b>				
<b>Invited</b>				
Room B	09:00-09:30	23-BI01	Peter Bruggeman (University of Minnesota, United States)	Gas phase diagnostics of plasma jets and their induced liquid phase chemistry in the context of interactions with prokaryotic and eukaryotic cells
	09:30-10:00	23-BI02	Valeriy Titov (G.A. Krestov Institute of Solution Chemistry RAS, Russia)	Properties and Some Possible Applications of Gas Discharges Contacting with Liquids
<b>Program Change</b>				
		(23-BI02)	Svetlana A. Ermolaeva (Gamaleya Institute of Epidemiology and Microbiology, Russia)	Effects of the non-thermal argon plasma on intracellular bacteria: biological mechanisms and feasible applications
<b>Oral (Contributed)</b>				
Room B	10:20-10:35	23-BO01	Stephan Reuter (ZIK plasmatis at the INP Greifswald, Germany)	Tailored Reactive Oxygen Species and their generation mechanisms from the plasma, the gas and the liquid phase to human cells
	10:35-11:50	23-BO02	Timo Gans (York Plasma Institute, University of York, UK)	Key reactive species in cold atmospheric pressure plasmas: absolute measurements
	10:50-11:05	23-BO03	Helena Tresp (Center for Innovation Competence plasmatis at INP Greifswald e.V., Germany)	Plasma Jet (V)UV-Radiation Impact on Biorelevant Liquids and Cell Suspension
	11:05-11:20	23-BO04	Petr Lukes (Institute of Plasma Physics AS CR, Czech Republic)	Evidence about Formation of Peroxynitrite in Air Plasma-Treated Water through a Second-Order Post-Discharge Reaction of H <sub>2</sub> O <sub>2</sub> and HNO <sub>2</sub>
	11:20-11:35	23-BO05	Sybille Hasse (ZIK plasmatis, INP Greifswald e.V., Germany)	PLASMA TREATMENT OF HUMAN SKIN TISSUE



## (2) Poster Sessions



Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
<b>01. medical treatment with discharge plasmas</b>		
19-P01-01	Vandana Miller (AJ Drexel Plasma Institute, Drexel University, USA)	Plasma-Tissue Interactions
19-P01-02	Adam M. Hirst (University of York, UK)	Mapping the Effects of Low Temperature Plasma Treatment of Prostate Cancer Cell Lines and Primary Cells: Along the Path to Cell Death
19-P01-03	Takamichi Hirata (Tokyo City University, Japan)	Healing Burns Using Atmospheric Pressure Plasma Irradiation
19-P01-04	Genu Takahashi (Tokyo City University, Japan)	Relationship of Nitric Oxide Concentration in the Blood Pressure Lowering in Rats Following Atmospheric Pressure Plasma Inhalation
19-P01-05	Dehui Xu (Xi'an Jiaotong University, China)	OH radical as a major factor for cell adhesion by cold atmospheric plasma
19-P01-06	Keisuke Hirasawa (Cambwick Healthcare KK, Japan)	Possible Clinical Application of Electron Discharge at Extremely Low Energy Level for Suppression of Oxidative Stress
19-P01-07	Sung Kil Kang (Pohang University of Science and Technology, Republic of Korea)	Compact microwave atmospheric plasma devices for biomedical applications
19-P01-08	Augusto Stancampiano (alma Mater Studiorum - University of Bologna, Italy)	A novel plasma based teeth whitening process
19-P01-09	Satoshi Kaiho (Tokyo city university, Japan)	Diagnostic Imaging of Plasma-Treated Rat Hypoxic Ischemic Encephalopathy Model Using X-ray CT
<b>02. biological reactions to gas plasmas or plasma-treated media/surfaces</b>		
19-P02-01	Franck Clément (Pau University, France)	Analyses of Reactive Oxygen and Nitrogen Species induced by atmospheric pressure guided streamers in a physiological liquid medium
19-P02-02	Shunsuke Yoshizawa (University of Tsukuba, Japan)	Molecular Mechanism of Plasma-Induced Chemical Reaction on Protein and Amino Acid in Aqueous solution
19-P02-03	Carly E. Anderson (University of California Berkeley, USA)	Interaction of Ambient Air Corona Discharges with Aqueous Solutions and Simple Biomolecules
19-P02-05	Kathrin Duske (University Medical Center Rostock, Germany)	A comparative in vitro study of different non-thermal atmospheric pressure plasma-jets concerning cell adhesion capacity on rough titanium alloys

Monday, May 19  
[ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
19-P02-06	Hirofumi Kurita (Toyohashi University of Technology, Japan)	Estimation of Radical Intensity and Apoptosis Induction Activity of Aqueous Media using Single-Molecule DNA Measurement
19-P02-07	Kodai Sakuramoto (Kochi University of Technology, Japan)	UV absorption of water induced by APPJ irradiation
19-P02-08	Angela Privat-Maldonado (University of York, UK)	Determining the effect of plasma on bacterial DNA at the single cell level
19-P02-09	Jean-Philippe Sarrette (Toulouse University / CNRS, France)	Degradation of fatty acids by nitrogen flowing afterglows at reduced pressure
19-P02-10	Elena V. Sysolyatina (Gamaleya Research Institute of Epidemiology and Microbiology, Russia)	Bactericidal and wound healing properties of the air plasma generated by the ferroelectric generator
19-P02-11	Malte U. Hammer (ZIK plasmatis @INP Greifswald, Germany)	Influence of plasma-treated liquids on structure and function of lipid membranes
19-P02-12	Abraham Lin (Drexel Plasma Institute, USA)	Stimulation of Intracellular Reactive Oxygen Species in Uniform and Non-Uniform Regimes of Nanosecond Pulsed Dielectric Barrier Discharge Treatment
19-P02-13	Gai Ohashi (University of Tsukuba, Japan)	Degeneration of amyloid- $\beta$ fibrils in aqueous solution by low-temperature atmospheric-pressure plasma
19-P02-14	Satoshi Ikawa (University of Tsukuba, Japan)	Evaluation of oxidative stress inside cell membrane by the penetration of HOO radical with the reduced pH method for plasma disinfection
19-P02-15	Julia van der Linde (Greifswald University, Germany)	Analysis of intraperitoneal application of TTP on murine small bowel
19-P02-16	Caitlin Heslin (Dublin Institute of Technology, Ireland)	Efficacy and Safety Considerations for the Use of Atmospheric Cold Plasma in Wound Treatment
19-P02-17	Hiroshi Hashizume (Meijo University, Japan)	Proliferation mechanism of budding yeast cells with oxygen radical treatment
<b>03. plasma-based sterilization/decontamination</b>		
19-P03-01	Bulteau Anne-Laure (Pau University - UMR CNRS, France)	Oxydative stress responses induced by atmospheric pressure guided streamers on bacteria <i>Escherichia coli</i>
19-P03-02	Zdenko Machala (University of California, Berkeley and Comenius University, USA, Slovakia)	Frugal Air Spark-like Plasma for Antimicrobial NO <sub>x</sub> Generation

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
19-P03-03	Toshihiro Takamatsu (Tokyo Institute of Technology, Japan)	Investigation of biological effect and toxin degradation using temperature controllable multi-gas plasma jet
19-P03-04	Nid'a H. Alshraideh (Queen's University Belfast, UK)	Atmospheric Pressure, Non-Thermal Plasma for Control of <i>P. aeruginosa</i> Biofilms: Effect of Biofilm Components on Phenotypic Resistance
19-P03-05	Joanna Abigael Daseco (University of the Philippines, Philippines)	Comparative Study on the Use of Different Metal Electrodes in Low Pressure Glow Discharge Plasma Sterilization
19-P03-06	Zuzana Koval'ová (Supelec, France)	Decontamination of the inner walls of a narrow tube at atmospheric pressure using long distance propagation discharge in argon
19-P03-07	Takaya Oshita (Tokyo Institute of Technology, Japan)	Influence Investigation of Gas Temperature on Inactivation of Oral Bacteria using Temperature-controllable Plasma Jet
19-P03-09	Guanyang Tang (Tohoku University, Japan)	Water Sterilization by a Nano-second-pulsed Plasma Discharge in Gas Bubbles
19-P03-10	Yosuke Watanabe (Tokyo Institute of Technology, Japan)	Effect of gas species on plasma-bubbling sterilization
19-P03-11	Xiaoli Yang (Shizuoka University, Japan)	Roles of Oxygen and Nitrogen Atoms N <sub>2</sub> /O <sub>2</sub> Plasma on Inactivation of Spore-forming Microorganisms
19-P03-12	Eva Dolezalova (Institute of Plasma Physics AS CR, Czech Republic)	Detection of membrane damages in <i>Escherichia coli</i> after plasma treatment
19-P03-13	Karol Hensel (Comenius University, Slovakia)	Inactivation of bacteria and cells by DC transient spark discharge
19-P03-14	Kun Qien (Gunma University, Japan)	Enhancement of the Sterilization Efficiency of Argon Plasma Jet by Addition of O <sub>2</sub> and H <sub>2</sub> O <sub>2</sub>
19-P03-15	Hiroto Matsuura (Osaka Prefecture University, Japan)	The Effect of Active Radical Production on the Plasma Degradation of Phorbol Esters in Bio-diesel Fuel industry
19-P03-16	Joey Kim T. Soriano (University of the Philippines, Philippines)	Mold sterilization of contaminated oil-on-canvas paintings via microwave atmospheric plasma pencil (MAPP)
19-P03-17	Siti Khadijah binti Za'aba (UNIVERSITI MALAYSIA PERLIS, Malaysia)	Inactivation Acinetobacter Bacteria by Atmospheric Plasma
<b>04. agricultural applications of plasma technologies</b>		
19-P04-01	Takaaki Amano (Kyushu University, Japan)	Preservation of Growth Enhancement of Plants after Atmospheric Pressure DBD Plasma Irradiation

Monday, May 19  
[ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
19-P04-02	Thapanut Sarinont (Kyushu University, Japan)	Effects of ambient gas species for plasma irradiation to seeds on plant growth promotion
19-P04-03	Kohei Takano (Iwate University, Japan)	Improvement of Growth Rate of Plants using Bubble Discharge in Water
19-P04-04	Taesoo Kim (Kwangwoon University, Republic of Korea)	Effects of Dielectric Barrier Discharge (DBD) Plasma on Seed Germination and Plant Growth
<b>06. plasma-based surface modification for medical/biological applications</b>		
19-P06-01	Maria Letizia Focarete (Alma Mater Studiorum - University of Bologna, Italy)	Atmospheric pressure non-equilibrium plasma for the production of composite materials
19-P06-02	Andreas Heilmann (Fraunhofer Institute for Mechanics of Materials IWM, Halle (Saale), Germany)	Aerosol-Assisted Atmospheric Pressure Dielectric Barrier Discharges on Polymer Surfaces for anti-microbial properties
19-P06-03	Andrey Choukourov (Charles University in Prague, Faculty of Mathematics and Physics, Czech Republic)	Direct covalent coupling of biomolecules to nanostructured plasma polymers
19-P06-04	Yoshihiro Akimoto (Kyorin University School of Medicine, Japan)	Molecular Morphological Analysis of the Effect of Low Temperature Plasma on the Wound Healing of Skin
19-P06-05	So-Hyoun Jeon (Sungkyunkwan University, Republic of Korea)	Flow manipulation in thread-based microfluidics by plasma treatment of wool with various gas
19-P06-06	Mei-Chen Liu (Ming Chi University of Technology, Taiwan)	Surface-Modification Techniques of Thin Film Transistors and Capacitors by Plasma Deposition $\text{SnO}_x\text{C}_y$ for Improve Electric Conductivity of Biomedical Applications
19-P06-07	Kullachard Ozawa (The Petroleum and Petrochemical college Chulalongkorn University, Thailand)	Preparation of Nylon/Chitin Membranes by Solution Casting and DBD Plasma Treatment for Wound Care Application
19-P06-08	Kentaro Hayashida (Organization for Innovation and Social Collaboration, Shizuoka University, Japan)	Observation of Skin Changes by Atmospheric Plasma Jet Irradiation
19-P06-09	Chia-Ti Chang (Tatung University, Taiwan)	Micro-arc Oxidation Titanium and Post Treatment by Cold Plasma and Graft Polymer for Improving Biocompatibility
19-P06-10	Anna Liguori (Alma Mater Studiorum - University of Bologna, Italy)	Atmospheric pressure plasma patterning of biocompatible substrates: comparison of localized treatment effectiveness with different plasma sources



Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
19-P06-11	Paolo Baldissara (Alma Mater Studiorum - University of Bologna, Italy)	Plasma as a new odontoiatric tool to improve implants adhesion
<b>07. biochemical/biomolecular engineering with plasmas</b>		
19-P07-01	Naresh Kumar (Kwangwoon University, Republic of Korea)	Influence of deuterium oxide generated through non thermal D <sub>2</sub> O plasma jet on biomolecule
19-P07-02	Yohei Ikeda (Ehime University, Japan)	Minimization and Localization of Cell Damage under Microplasma Irradiation for Gene Transfection
19-P07-03	Seiryu Shibakawa (Ehime University, Japan)	Evaluation of DNA Damage Irradiated by Plasmas for Gene Transfection
19-P07-04	Chihiro Tsutsui (Tokyo City University, Japan)	Cell Activation using Micro-Spot Atmospheric Pressure Plasma Derived FGF-2/VEGF
19-P07-05	Masaru Yoshioka (Ehime University, Japan)	Plasma Gene Transfection with Surface Discharge
<b>08. fundamentals of atmospheric-pressure plasmas</b>		
19-P08-01	Young J. Hong (Kwangwoon university, Republic of Korea)	Measurement of electron temperature and 1s excited atom density by using collisional radiative model in nonthermal atmospheric Ar plasma jet
19-P08-02	Kanako Sekimoto (Yokohama City University, Japan)	Mass spectrometric analysis of negative ion formation in atmospheric pressure corona discharges with point-to-plane electrodes
19-P08-03	Marguerite Dang Van Sung Mussard (LPP, Ecole Polytechnique, France)	Experimental study of a discharge propagating in a dielectric capillary - Interaction of a plasma jet with a surface
19-P08-04	Youbin Seol (Korea Advanced Institute of Science and Technology, Republic of Korea)	Study on the radical production in atmospheric pressure pulsed DBD plasma jets
19-P08-05	Hikaru Nozaki ( Nagaoka University of Technology, Japan)	Study on Coloring Effect for Metal Surface using Atmospheric Pressure Plasmas
19-P08-06	Sandra Richter (Fraunhofer Institute for Mechanics of Materials IWM, Halle, Germany)	Correlations of in-line analytical investigations of atmospheric pressure plasma processes with surface analysis
19-P08-07	Camille Faith P. Romero (Doshisha University, Japan)	Development of ECR Microwave Antenna for the production of streaming atmospheric-pressure plasma

Monday, May 19  
[ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
19-P08-08	Yubin Xian (Huazhong University of Science and Technology, China)	He Plasma Plumes in Different Surrounding Gases
19-P08-09	Giichiro Uchida (Osaka University, Japan)	Characteristics of Reactive Particle Production in Atmospheric Pressure DBD Plasma Jet
<b>09. plasma-surface interactions relevant for medical/biological applications</b>		
19-P09-01	Jan Benedikt (Ruhr-University Bochum, Germany)	Atmospheric pressure plasma jet for separated and combined treatment with plasma generated reactive species and photons
19-P09-02	Dai Itsuki (Osaka University, Japan)	Modification of hydroxyapatite and polystyrene surface for cell culture by low-pressure plasmas
19-P09-03	Yoshiyuki Suda (Toyohashi University of Technology, Japan)	Defect formation of lipid bilayer membrane by dielectric barrier discharge irradiation and comparison with chemical treatment
19-P09-04	Kosuke Takenaka (Osaka University, Japan)	Interactions of Atmospheric Pressure Non-equilibrium-Plasma with Organic Materials through Gas/Liquid Interface
19-P09-05	Naoyuki Kurake (Nagoya University, Japan)	Electron Spin Resonance Study of Plasma-Activated-Medium
19-P09-06	Yui Hayashi (Nagoya University, Japan)	Reaction of Amino Acid and Protein in Water Induced by Electric Discharge at Argon / Aqueous Solution Interface
19-P09-07	Hiromasa Yamada (Tsukuba University, Japan)	Characteristic measurements of a plasma flare of medical equipment using a low temperature plasma
<b>10. plasma sources for medical/biological applications</b>		
19-P10-01	Anser Ali (Kwangwoon University, Republic of Korea)	Role of non-thermal dielectric barrier discharge (DBD) plasma for wound healing application
19-P10-02	Andreas Helmke (Fraunhofer Institute for Surface Engineering and Thin Films, Germany)	Ozone concentrations in the plasma volume and the surrounding of a plasmamedical dielectric barrier discharge source operated in ambient air
19-P10-03	Mohammed Yousfi (CNRS, Toulouse University, France)	Tuning of low temperature plasmas ejected in open air for biomedical applications from diagnostic and modeling tools
19-P10-04	Chae bok Lee (Department of Plasma Bioscience and Display, Republic of Korea)	Visualization of OH radical interactions in living cells by adding D <sub>2</sub> O in non-thermal plasma jet
19-P10-05	Suk Hwal Ma (Ajou university, Republic of Korea)	An atmospheric-pressure cold plasma jet device with a multi-microchannel structure

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
19-P10-06	Yasumasa Okazaki (Nagoya University, Graduate School of Medicine, Department of Pathology and Biological Responses, Japan)	Non-equilibrium atmospheric pressure plasma (NEAPP) generates oxidative injury
19-P10-07	Henryka Stryczewska (Lublin University of Technology, Poland)	Power Supply in Non-Thermal Plasma Generators for Biological Applications
19-P10-08	Victor N. Vasilets (Institute for Energy Problems of Chemical Physics, RAS, Russia)	Therapeutic effects of gases formed in hot air plasmas and medical applications of graphene-based polymer materials.
19-P10-09	Max Engelhardt (Ruhr-University Bochum, Germany)	Characterization of propagating ionization waves in atmospheric plasma discharges
19-P10-10	Jaeho Kim (National Institute of Advanced Industrial Science and Technology (AIST), Japan)	Discharge characteristics of an atmospheric pressure cold plasma jet for medical applications
19-P10-11	Yota Sasaki (Tokyo Institute of Technology University, Japan)	Investigation of Singlet Oxygen ( $^1O_2$ ) and OH radical in Bacterial Sterilization
19-P10-12	Thibault Darny (GREMI UMR7344 CNRS/ University of Orleans, France)	Selective reactive species production in a $\mu$ s helium plasma gun discharge
19-P10-13	Hea Min Joh (Dong-A University, Republic of Korea)	The study of atmospheric pressure plasma to induce p53-mediated apoptosis through ROS generation in human lung cancer cells
19-P10-14	Xiaoqian Cheng (The George Washington University, USA)	The Effect of Differing Cold Plasma Composition on Glioblastoma Cell Viability

### 11. plasma and/or liquid diagnostics and sensors

19-P11-01	Shusuke Nishiyama (Hokkaido University, Japan)	LIF Imaging of Sodium Atoms in Atmospheric-Pressure Miniature Gas Flow DC Glow Discharge in Contact with Sodium Chloride Solution
19-P11-02	Xuekai Pei (Huazhong University of Science & Technology, China)	Measurement of OH radicals in RT-APPJ using laser-induced fluorescence
19-P11-03	Kentaro Tomita (Kyushu University, Japan)	Thomson Scattering Measurements of Atmospheric Plasmas Contacting with Ionic Liquids
19-P11-04	Tatsuo Ishijima (Kanazawa University, Japan)	Investigation of Chemical Species Production Rates in Aqueous Solution Irradiated by Non-equilibrium Atmospheric Pressure Jet

Monday, May 19  
 [ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
19-P11-05	Takayuki Ohta (Meijo University, Japan)	Molecular structure of microorganisms measured by multiplex coherent anti-Stokes Raman scattering microspectroscopy
<b>12. modeling and numerical simulation</b>		
19-P12-01	Kazumasa Ikuse (Osaka University, Japan)	Numerical simulation of Fenton reactions in water exposed to an atmospheric-pressure plasma
19-P12-02	Maksudbek Yusupov (University of Antwerp, Belgium)	Modeling of the behavior of reactive oxygen species in a liquid water layer of interest for plasma medicine
<b>13. others</b>		
19-P13-01	Akiyo Tanaka (Kyushu University, Japan)	Tissue Distribution of Indium After Repeated Intratracheal Instillations of Indium-Tin Oxide in Hamsters
19-P13-02	Masato Kiuchi (National Institute of Advanced Industrial Science and Technology (AIST), Japan)	Atmospheric Chemical Reaction by Air Activation Apparatus Using Corona Discharge and UV Lamp

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
<b>01. medical treatment with discharge plasmas</b>		
20-P01-01	Nasruddin (Department of Clinical Nursing, Graduate School of Medical Science, Kanazawa University, Japan)	Visually non-contact argon plasma jet on microliter water-dropped wound accelerates wound healing
20-P01-02	Zilan Xiong (University of California at Berkeley, USA)	Atmospheric Pressure Plasma for Nail Fungus Treatment
20-P01-03	Minjoo Lee (Tokyo City University, Japan)	Treatment of Cardiac Disease by of Atmospheric Pressure Plasma Inhalation
20-P01-04	Konstantin Sobyenin (Gamaleya Institute of Epidemiology and Microbiology, Russia)	Plasma inactivation of biofilms formed ex vivo within a root canal by the causative agent of pulpitis
20-P01-05	Chiharu Tokita (Tokyo City University, Japan)	Research for Regenerative Medicine Using Micro-spot Atmospheric Pressure Plasma Source
20-P01-06	Shiyu Zhong (Xi'an Jiaotong University, China)	Cell death and cytokine release induced by surface plasma in immortalized human keratinocytes (HaCaT)
20-P01-07	Jun-ichiro Ikeda (Osaka University, Japan)	Effect of non-equilibrium atmospheric pressure plasma in cancer initiating cells
20-P01-08	Maty Tzukerman (Rambam Medical Center, Israel)	The Effect of Cold Plasma Treatment on Cancer Stem Cells
20-P01-09	Yan-Ren Lin (Changhua Christian Hospital, Taiwan)	Pediatric skin inflammatory reactions (urticaria) increases the risk of developing new-onset depression - a database study
20-P01-10	Guillaume Collet (Université d'Orléans, France)	NTP Antitumor Soft Treatment: Evidence of a Triggering Effect?
<b>02. biological reactions to gas plasmas or plasma-treated media/surfaces</b>		
20-P02-01	Ryo Ono (The University of Tokyo, Japan)	Role of Radicals on Cell Viability
20-P02-02	Roger Martin Agustin (Toyohashi University of Technology, Japan)	Development of method for analyzing eukaryotic cellular responses to atmospheric pressure non-thermal plasma using yeast knockdown collection
20-P02-03	Francesca Cavrini (Alma Mater Studiorum - University of Bologna, Italy)	Antimicrobial activity of a low power inductively coupled plasma source at safe levels for eukaryotic cells
20-P02-04	Jeongeong -Hae Choi (Pusan National University, Republic of Korea)	Treatment with low temperature atmospheric pressure plasma enhances cutaneous delivery of epidermal growth factor by regulating E-cadherin-mediated cell junctions

Tuesday, May 20  
 [ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
20-P02-05	Sung Un Kang (Ajou university school of medicine, Republic of Korea)	Non-thermal atmospheric pressure plasma inhibits invasion of thyroid cancer cells : Involvement of cytoskeletal modulation and MMP change
20-P02-06	Uroš Cvelbar (Jožef Stefan Institute, Serbia)	Effects of Plasma on Lens Epithelial Cells
20-P02-07	Ji Hoon Park (Department of Electrical and biological Physics, Kwangwoon University, Republic of Korea)	A New Generation of Biocompatible Pulse-discharged Plasma by Marx Generator and its Application on the Biomolecules
20-P02-08	Shota Sasaki (Tohoku University, Japan)	Effective Region of Atmospheric Pressure Plasma on Transfection
20-P02-09	Sander Bekeschus (Leibniz Institute for Plasma Science and Technology (INP Greifswald), Germany)	The High Significance of Hydrogen Peroxide in Cold Atmospheric Pressure Plasma treated Human Blood Immune Cells
20-P02-10	Mareike A. Ch. Hänsch (Leibniz Institute for Plasma Science and Technology, INP-Greifswald e.V., Germany)	Bacteria show increased susceptibility against common available antibiotics and no resistance by repetitive atmospheric pressure plasma application
20-P02-11	Pei-Lin Shao (National Cheng Kung University, Taiwan)	Second degree burn wound healing on mice stimulated by N <sub>2</sub> /Ar micro-plasma exposure
20-P02-12	Nathaniel D. Taylor (Drexel University, USA)	Energy Source Effects of Non-thermal Plasma Jet on Skin Cancer Cells in Artificial Tissue Scaffold
20-P02-13	Anne Mai-Prochnow (CSIRO Materials Science and Engineering, Australia)	Bacterial biofilm response to argon plasma treatment
20-P02-14	Julius Andrew P. Nunez (University of the Philippines, Philippines)	Antibacterial performance of magnetron sputtered TiO <sub>2</sub> thin films deposited at varying discharge current and deposition time
20-P02-15	Anke Schmidt (Centre for Innovation Competence plasmatis, Leibniz Institute for Plasma Science and Technology (INP), Germany)	Transcriptional profiling in human keratinocytes in response to non-thermal plasma and identification of transcription factor for regulating differential gene expression
20-P02-16	Paulien Smits (Eindhoven University of Technology, Netherlands)	Dielectric barrier discharge devices tailored to specific skin treatments

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
20-P02-17	Kijung Kim (KAIST, Republic of Korea)	The effect of atmospheric pressure plasma to angiogenesis
20-P02-18	Matteo Zuin (Conorzio RFX, Associazione Euratom-ENEA sulla fusione, Italy)	Control of time-limited activation of human primary fibroblasts through ROS generation induced by cold atmospheric plasma treatment
<b>03. plasma-based sterilization/decontamination</b>		
20-P03-01	Silvia Polverini (Alma Mater Studiorum - University of Bologna, Italy)	Plasma source for fast and continuous purification of water flows
20-P03-02	Hiroshi Okawa (Yamato Scientific Co.,Ltd., Japan)	Bactericidal Characteristics and Material Conformity of Atmospheric-Pressure Glow Discharge
20-P03-03	Takuya Towatari (Meijo University, Japan)	Inactivation of microorganism in liquid treated with neutral reactive oxygen species
20-P03-05	Tomomasa Itarashiki (Kyushu University, Japan)	Multi-torch type microwave air plasma designed for medical sterilization
20-P03-06	Toru Sasaki (Nagaoka University of Technology, Japan)	Inactivation effect of marine microorganisms on hydrogen mixed gas plasma generated by dielectric barrier discharges
20-P03-07	Yuichiro Takemura (Kinki University, Japan)	Sterilization treatment of bacterial spores contaminated spices by Atmospheric Pressure Plasma Jet
20-P03-08	Kohei Umeda (Kumamoto University, Japan)	Difference of Cell Death Ratio between using Atmospheric-pressure Dry- and Mist- Plasma Jets
20-P03-09	Zimu Xu (University of Science and Technology of China, China)	Sterilizing Effect of <i>Xanthomonas Campestris</i> pv. <i>Campestris</i> (Xcc) by Corona-Discharge Nonthermal Plasma Exposure at Atmospheric Pressure
20-P03-10	Akira Yonesu (University of the Ryukyus, Japan)	Internal sterilization of a narrow tube by ECR plasma
20-P03-11	Utku Kursat Ercan (Izmir Katip Celebi University, Turkey)	Cellular Responses in <i>E. coli</i> upon Exposure to Non-Thermal DBD Plasma Treated N-Acetylcysteine (NAC) Solution
20-P03-12	Sarah Higginbotham (Queen's University BELFAST, UK)	EVALUATION OF THE BACTERICIDAL EFFECT OF A HELIUM BASED ATMOSPHERIC PRESSURE NON THERMAL PLASMA JET ON THE 'ESKAPE' PATHOGENS
20-P03-13	Romolo Laurita (Alma Mater Studiorum - University of Bologna, Italy)	Comparison of the growth inhibition potential of different dielectric barrier discharge operating regimes

Tuesday, May 20  
[ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
20-P03-14	Cristina Muja (Toulouse University, CUFR J.F. Champollion, France)	Bacterial surface decontamination of different types of materials using an UV-C dielectric barrier discharge flat lamp
20-P03-15	Hayat Zerrouki (Toulouse University / CNRS, France)	Morphologic changes observed on <i>E. coli</i> bacteria submitted to nitrogen and air plasma jets and afterglows
20-P03-16	Lu Han (Dublin Institute of Technology, Ireland)	Inactivation Mechanism of Atmospheric Cold Plasma against <i>Escherichia coli</i> and <i>Staphylococcus aureus</i> in Liquid
<b>04. agricultural applications of plasma technologies</b>		
20-P04-01	Min Ho Kang (KwangWoon University, Republic of Korea)	The application of O <sub>3</sub> and plasma generated by arc discharge in control of rice Bakanae disease caused by <i>Fusarium fujikuroi</i>
20-P04-02	Mohamed El Shaer (Faculty of Engineering, Zagazig University, Egypt)	Treatment of Microorganisms in Vegetables and Fruits by Gliding Arc
20-P04-03	Kohei Yoshida (Iwate University, Japan)	Effects of electrical stimulation by high voltage pulse on yield in sawdust-bed cultivation <i>Lentinula edodes</i>
<b>05. pharmaceutical applications of plasma technologies</b>		
20-P05-01	Daiki Yamagami (Okayama University, Japan)	Histological comparison of the wound healing process between non-thermal plasma hemostasis and thermal coagulation hemostasis
<b>06. plasma-based surface modification for medical/biological applications</b>		
20-P06-01	Katja Fricke (Leibniz Institute for Plasma Science and Technology (INP Greifswald e.V.), Germany)	Generation of locally deposited Bioactive Thin Films using Atmospheric Pressure Plasma Jets
20-P06-02	Nichapat Boonyeun (Chulalongkorn University, Thailand)	Preparation of Bacterial Cellulose Composites with the aid of Dielectric Barrier Discharge (DBD) Plasma Treatment
20-P06-03	Sophie Lerouge (Ecole de technologie superieure (ETS), Canada)	Plasma polymer coatings for biomedical applications: effect of aqueous media
20-P06-04	Hitoshi Muguruma (Shibaura Institute of Technology, Japan)	Patterning of Endothelial Cells and Hepatic Stellate Cells with Two Step Plasma-polymerized Processes
20-P06-05	Joanna Pawlat (Lublin University of Technology, Poland)	Treatment of Polymer Surface in APPJ
20-P06-06	Chia-Hsuan Tseng (Graduate Institute of Biomedical Materials and Tissue Engineering, Taipei Medical University, Taiwan)	Cell adhesion enhancement of electrospun microtube array membrane (MTAM) by acetic acid (AA) plasma treatment for hollow fiber assay



Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
20-P06-07	Jang-Hsing Hsieh (Ming Chi University of Technology, Taiwan)	Mechanical and biocompatibility of tunable TaOxNy thin films
20-P06-08	Ayako Oyane (National Institute of Advanced Industrial Science and Technology, Japan)	Laser-assisted biomimetic process for calcium phosphate deposition on a titanium metal
20-P06-09	Mohammad Jellur Rahman (Graduate School of Science and Technology, Shizuoka University, Japan, Bangladesh)	Surfactant-Free Green Approach to Obtain Water-Dispersible Carbon Nanotubes by RF Plasma Treatment
20-P06-10	Nina Recek (Jozef Stefan Institute, Slovenia)	Influence of polymer surface on cell proliferation and cell oxidative homeostasis
20-P06-11	Kiyoshi Ohnuma (Nagaoka University of Technology, Japan)	Plasma-patterned PDMS Coated with Vitronectin and $\gamma$ -globulin Enables Patterning of Human iPS Cells
<b>07. biochemical/biomolecular engineering with plasmas</b>		
20-P07-01	Mana Oga (Tokyo City University, Japan)	Research for Tissue Regeneration Using Micro-Spot Atmospheric Pressure Plasma Source
20-P07-02	Kuntinee Somboonying (The Petroleum and Petrochemical College, Chulalongkorn University, Thailand)	Deacetylation and Depolymerization of Chitin Hydrogel via Solution Plasma Process
20-P07-03	Takuya Yamasaki (Ehime University, Japan)	Gene Transfection to Human Skin Cells by Microplasma Irradiation Using Microcapillary Electrode
20-P07-04	Amel Zerrouki (Ehime University, Japan)	Analysis of Plasma Irradiation Effect on Cell Membrane Using Artificial Cells
<b>08. fundamentals of atmospheric-pressure plasmas</b>		
20-P08-01	Su-Jeong Kim (Seoul National University, Republic of Korea)	How to Improve the Reproducibility of Treatment Using Helium Atmospheric Pressure Plasma Jet (He-APPJ)
20-P08-02	Seiya Yonemori (The University of Tokyo, Japan)	Effect of voltage polarity and surface condition on active species production by an atmospheric-pressure helium plasma jet
20-P08-03	Alexey Shashurin (The George Washington University, USA)	Physical processes in the low-frequency nonequilibrium atmospheric plasma jets
20-P08-04	Atsushi Komuro (The University of Tokyo, Japan)	Effects of humidity on gas heating in atmospheric-pressure streamer discharge

Tuesday, May 20  
[ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
20-P08-05	Jeong-beom Lee (Korea Advanced Institute of Science and Technology, Republic of Korea)	On the microwave plasma jet characteristics by impedance analysis
20-P08-06	Hidefumi Uchiyama (TATEYAMA MACHINE CO.,LTD, Japan)	Free Radical Generation by Cold Atmospheric Argon Plasma in Aqueous Solutions. An ESR Spin Trapping Study.
20-P08-07	Shinsuke Mori (Tokyo Institute of Technology, Japan)	Influence of Spore Deposition onto the Dielectric Surface on the Mode of Dielectric Barrier Discharge
20-P08-08	Kiyoyuki Yambe (Niigata University, Japan)	Relation between Plasma Plume Density and Helium Gas Flow in Atmospheric Pressure Plasma

### 09. plasma-surface interactions relevant for medical/biological applications

20-P09-01	Kensaku Goto (Osaka University, Japan)	Generation of reactive species in water exposed to low-temperature atmospheric-pressure plasma jets
20-P09-02	Hironobu Hojo (Osaka University, Japan)	Effect of Plasma Jet on Carbohydrate Derivatives
20-P09-03	Andrea Friedmann (Fraunhofer Institute for Mechanics of Materials IWM, Halle, Germany)	Evaluation of Cell Growth on Nanostructured and Functionalized Polystyrene
20-P09-04	Sou Takasawa (Shibaura Institute of Technology, Japan)	Local Injection using Reagent-laden Micro-bubbles
20-P09-05	Enbo Yang (Shizuoka University, Japan)	Plasma Surface Functionalization of Graphite-Encapsulated Gold Nanoparticles for Bio-medical Application
20-P09-06	Han Chou (Shizuoka University, Japan)	Surface Functionalization of Graphite-encapsulated Magnetic Nanoparticles with Amino Groups Using RF Excited Ar/NH <sub>3</sub> Plasma

### 10. plasma sources for medical/biological applications

20-P10-01	Simone Bianconi (Alma Mater Studiorum - University of Bologna, Italy)	Investigation of the effectiveness of a <i>Gatling machine gun</i> -like plasma source for biomedical and materials treatment applications
20-P10-02	Philippe Guillot (Toulouse University, CUJR JFC, France)	Experimental characterization of a coaxial microwave plasma source and efficiency on microbial surface decontamination
20-P10-03	Satoru Hida (Nagaoka University of Technology, Japan)	Sterilization of <i>Escherichia coli</i> by atmospheric pressure plasma irradiation using superimposed waveform pulsed-power generator
20-P10-04	Sun Ja Kim (Dong-A University, Republic of Korea)	Generation of Multiple Plasma Plumes and Biomedical Applications in an Atmospheric Pressure Plasma Jet Array

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
20-P10-05	Han Seul Lee (Kwangwoon University, Republic of Korea)	Study on Low Temperature Plasma by using Pulse Mode SSPA
20-P10-06	Seung-Ju Lim (Kwangwoon university, Republic of Korea)	Characteristics of Nonthermal Plasma source in Various Liquids
20-P10-07	GeonBO Sim (Kwangwoon University, Republic of Korea)	Characteristics of Bovine Teeth Whitening in Accordance with Gas Environments of Atmospheric Pressure Nonthermal Plasma Jet
20-P10-08	Masaya Sugimoto (Akita Prefectural University, Japan)	Investigation of Sterilization Effect with Low Pressure RF Oxygen Plasma
20-P10-09	Charles C. Bailey (Drexel University, USA)	Development of a hand sanitizer employing non-thermal plasma activated mist
20-P10-10	Youngmin Kim (Hong Ik University, Republic of Korea)	Low voltage Plasma-on-a-Chip for Infection Treatment
20-P10-11	Jun-Seok Oh (Kochi University of Technology, Japan)	Bladder cancer cell lines cultured by plasma treated cell culture medium
20-P10-12	Paolo Sanibondi (Alma Mater Studiorum - University of Bologna, Italy)	Diagnostics of a low power inductively coupled plasma source for potential biomedical applications
20-P10-13	Dongping Liu (Dalian Nationalities University, China)	Atmospheric-pressure microplasmas for medical/biological applications
20-P10-14	Chang Min Lee (Ajou University, Republic of Korea)	An atmospheric-pressure microplasma jet device with Ni-Co alloy electrode and glass insulator

### 11. plasma and/or liquid diagnostics and sensors

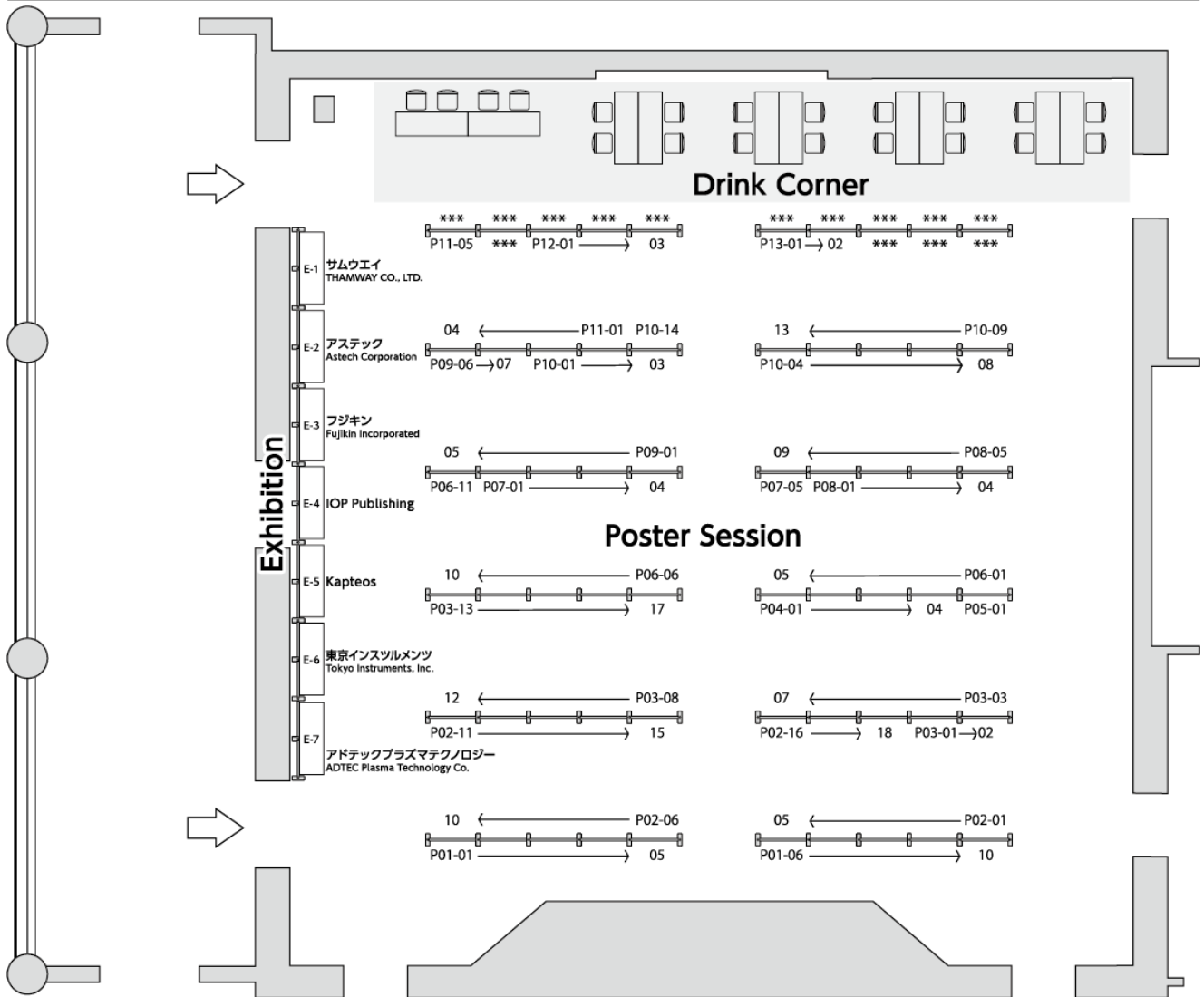
20-P11-02	Ma. Camille C. Lacdan (University of the Philippines Diliman, Philippines)	Spectroscopic Investigation of Nitrogen Radical Transport in Atmospheric Jet Plasma
20-P11-03	Mikhail Vasiliev (Joint Institute for High Temperatures of the Russian Academy of Sciences (JIHT RAS), Russia)	Diagnostics of cold atmospheric pressure plasma generated by various plasma sources
20-P11-04	Keigo Takeda (Nagoya University, Japan)	Characteristics of AC excited Non-equilibrium Atmospheric Pressure Helium Plasma Jet for Medical Application
20-P11-05	Delphine Riès (CNRS, France)	OH LIF for <i>in situ</i> plasma jet diagnostics
20-P11-06	Mario Dünnbier (INP Greifswald e.V. plasmatis, Germany)	Ion measurements of a cold atmospheric pressure plasma jet: The influence of ambient air humidity

Tuesday, May 20  
[ 2:00p.m. - 3:45p.m. ]

Poster No.	Presenting Author (Affiliation, Country)	Title of Paper
<b>12. modeling and numerical simulation</b>		
20-P12-01	Wouter Van Gaens (University of Antwerp, Belgium)	Revealing the NO generation mechanism in a needle type plasma jet
20-P12-02	Satoshi Uchida (Tokyo Metropolitan University, Japan)	Reactive Molecular Dynamics between Oxygen Radical and Phosphatidylcholine by Plasma Irradiation
20-P12-03	Dingxin Liu (Xi'an Jiaotong University, China)	The penetration process of gaseous reactive species into aqueous solution: A modeling study
<b>13. others</b>		
20-P13-01	Takanori Ito (Iwate University, Japan)	Preservation of Fresh Food Using AC Electric Field
20-P13-02	Hiromasa Tanaka (Nagoya University, Japan)	Signaling circuits that are affected by plasma-activated medium in brain tumor cells

# Exhibition and Poster Map

## Reception Hall (2F)



## Exhibition List

booth No.	Company	Exhibit Items	URL
E-1	(株) サムウエイ THAMWAY CO., LTD.	高周波電源 / 高周波増幅器 / ポストアンプ / RFコンポーネント RF Power Source, Post AMP, RF Components	<a href="http://www.thamway.co.jp/english/">http://www.thamway.co.jp/english/</a>
E-2	アステック (株) Astech corporation	1) プラズマ分析用質量分析計 / Mass Spectrometer for Plasma 2) 大気圧プラズマ分析システム / Gas Characterisation Analysis System for Atmospheric Plasma 3) 大気圧放電用電源 / Power Supply for Atmospheric Plasma Discharge 4) 光ファイバー温度計 / Fiber Optic Temperature Monitoring System	<a href="http://www.astechcorp.co.jp/index_Eng.html">http://www.astechcorp.co.jp/index_Eng.html</a>
E-3	(株) フジキン Fujikin Incorporated	バルブ機器類 (V-Lok, VV-valve, 極シリーズバルブ, F900, UJR, UPG, マスフローコントローラー) Valves & Fittings (V-Lok, VV-valve, FINE series Valves, F900, UJR, UPG, Mass Flow Controller)	<a href="http://www-ng.fujikin.co.jp/fujikinhp_e/">http://www-ng.fujikin.co.jp/fujikinhp_e/</a>
E-4	IOP Publishing	Journals	<a href="http://ioppublishing.org">http://ioppublishing.org</a>
E-5	KAPTEOS	Device for electromagnetics fields measurements and items for demonstration, computers, some documents (datasheets...)	<a href="http://www.kapteos.com">http://www.kapteos.com</a>
E-6	(株) 東京インスツルメンツ Tokyo Instruments, Inc.	ICCD検出器 / Intensified CCD camera 分光器 / Spectrograph 小型分光器 / Miniature Spectrometers	<a href="https://www.tokyoinst.co.jp/english/index.html">https://www.tokyoinst.co.jp/english/index.html</a>
E-7	(株) アドテックプラスマテクノロジー Adtec Plasma Technology Co., Ltd.	プラズマ創傷治療機 Plasma Medical device for chronic wounds treatment	<a href="http://en.adtec-rf.com/">http://en.adtec-rf.com/</a>



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