16th INTERNATIONAL SYMPOSIUM ON PLASMA BIOSCIENCE

ISPB[16]

| 2026

Plasma Science for Sources, Health, Agriculture, Environment & Materials

12 (Wed)– 14 (Fri) August 2026

Kwangwoon University, Seoul, Korea

Plasma Bioscience Research Center (PBRC)

ISPB16

16th International Symposium on Plasma Bioscience

PROGRAM BOOK

80th Anniversary Building, Conference Hall 310
Kwangwoon University, Seoul, Korea

12 – 14 August 2026
Seoul, Korea

ISPB 2026 Abstract Book

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ISPB2026

Conference Welcome Address

Prof. Eun Ha Choi

On behalf of the Organizing Committee, it is my great pleasure to welcome you to the **16th International Symposium on Plasma Bioscience (ISPB 2026)**, held at **Kwangwoon University, Seoul, Republic of Korea, from August 12–14, 2026**.

ISPB 2026 is proudly organized by **Kwangwoon University**, the **Department of Electrical and Biological Physics**, the **Plasma Bioscience Research Center (PBRC)**, the **Korea Plasma-Bio Industry Association (KPIA)**, and **Plasade Co., Ltd.**

Since its inception in **2011**, ISPB has grown into a premier international forum for plasma bioscience, bringing together researchers, engineers, clinicians, and industry leaders to exchange knowledge and foster global collaboration. We are delighted to celebrate the **16th edition** of this symposium.

This year's scientific program highlights recent advances in plasma medicine, biology, agriculture, environmental engineering, biomaterials, nanotechnology, and related interdisciplinary fields. We hope ISPB 2026 provides an inspiring platform for scientific discussion, innovation, and the development of new international collaborations.

I sincerely thank all speakers, participants, sponsors, exhibitors, and organizing committee members for their valuable support. I hope you enjoy the scientific program, experience the warm hospitality of Seoul, and create lasting professional relationships during your stay.

Thank you for being part of ISPB 2026. I wish you a productive and memorable conference, and I look forward to welcoming you again to the **17th International Symposium on Plasma Bioscience (ISPB 2027)** next year.

With my best regards,

Prof. Eun Ha Choi,
Chairman, ISPB 2026
CEO, Plasade Co., Ltd.
Director, Plasma Bioscience Research Center (PBRC),
Kwangwoon University, Seoul, Republic of Korea

Conference Welcome Address

Prof. Nagendra Kumar Kaushik

It is my great pleasure to welcome you to the **16th International Symposium on Plasma Bioscience (ISPB 2026)** at **Kwangwoon University, Seoul, Republic of Korea**. As an organizer of ISPB 2026, I am delighted to welcome all participants to this exciting international gathering.

This year, ISPB 2026 has attracted **around 100 participants from 12 countries** and features **more than 70 scientific abstracts**, reflecting the growing global interest in plasma science and its interdisciplinary applications. Your enthusiastic participation has made this symposium a truly international forum for scientific exchange and collaboration.

The conference presents the latest advances in **plasma sources and diagnostics**, **plasma bioscience**, **environmental and agricultural applications**, **plasma medicine and healthcare**, **materials engineering**, **nanomaterial synthesis**, **space technology** and many other emerging areas where plasma technologies are driving scientific and technological innovation. I sincerely thank all plenary and invited speakers, session chairs, and members of the organizing committee for their invaluable contributions. Your commitment and support have been essential to the success of ISPB 2026.

I hope you enjoy an inspiring scientific program, productive discussions, and the warm hospitality of Seoul. I wish you a rewarding and memorable conference experience.

With my best wishes,

Prof. Nagendra Kumar Kaushik
Co-Chairman, ISPB 2026
Professor, Department of Electrical and Biological Physics
Plasma Bioscience Research Center (PBRC)
Kwangwoon University, Seoul, Republic of Korea

Committee Members

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Programme at a Glance

	Wednesday, 12 August	Thursday, 13 August	Friday, 14 August
Morning	Plasma-Bio Tutorial	Plenary Lecture Technical Session	Plenary Lecture Technical Sessions
Afternoon	Opening Plenary Lecture Technical Sessions Special Session Poster Session	Conference Tour Plasma Farm Paju DMZ Tour (Imjingak Park)*	Industry Session Poster Session Special Session
Evening	Welcome Reception	Conference Dinner	Awards Closing

Venue: Conference Hall 310, 3rd Floor, 80th Anniversary Bldg.

*Note for Paju DMZ Conference Tour:
Please bring your valid physical passport (or national ID card for Korean citizens). Entry may be restricted without proper identification.
Tour Highlights: Imjingak Peace Park, Bridge of Freedom, Gondola.

Day 1 — Wednesday, 12 August 2026

09:00 – 12:10 | Plasma Bio Tutorial (Session Chair: Prof. Eun Ha Choi / Prof. Nagendra Kumar Kaushik)

Time	Type	Speaker	Title
09:00 – 09:20	**Registration**		
09:20 – 09:30	**Welcome Remarks**	Prof. Eun Ha Choi	Welcome Remarks for Plasma Bio Tutorial
09:30 – 10:00	**Tutorial**	Prof. Eric Robert (CNRS/GREMI/Université d'Orléans, France)	Plasma jet in interaction with targets: the physicochemical impact
10:00 – 10:30	**Tutorial**	Prof. Hiromasha Tanaka (Nagoya University, Japan)	Plasma-Activated Solutions for Cancer Treatment: From Chemistry to Biological Responses
10:30 – 10:40	**Tea Break**		
10:40 – 11:10	**Tutorial**	Prof. Eun Ha Choi (Kwangwoon University, Korea)	Plasma devices for bioscience and agriculture
11:10 – 11:40	**Tutorial**	Prof. Gyunsoon Park (Kwangwoon University, Korea)	Plasma agricultural applications
11:14 – 12:10	**Tutorial**	Prof. Nagendra Kumar Kaushik (Kwangwoon University, Korea)	Plasma cell & tissue interactions
12:10 – 13:20	**Lunch Break**		

13:20 – 15:00 | Technical Session 1 (Wed1) (Session Chair: Prof. Jun-Seok Oh / Prof. Kazunori Koga)			
Time	**Type**	**Speaker**	**Title**
13:20 – 13:30	**Welcome Remarks**	Prof. Eun Ha Choi, Prof. Nagendra Kumar Kaushik	Welcome Remarks for ISPB16
13:30 – 14:00	**Plenary Talk**	Prof. Eric Robert (CNRS/University of Orleans, France)	Do reactive species or others control plasma action in tissues?
14:00 – 14:20	**Invited Talk**	Prof. Hiromasa Tanaka, (Nagoya University, Japan)	Future Prospects of plasma-activated solutions
14:20 – 14:40	**Invited Talk**	Prof. Sun Jung Kim (Dongguk University, Korea)	Cold Atmospheric Plasma-Induced Epigenetic Remodeling: Integrating lncRNA Regulation and m6A RNA Methylation in Cancer Cells
14:40 – 15:00	**Invited Talk**	Dr. Sybille Hasse (Leibniz Institute for Plasma Science and Technology (INP), Germany)	Plasma- Functionalized liquids for Tissue decontamination
15:00 – 15:10	**Tea Break**		
15:10 – 16:30 | Technical Session 2 (Wed2) (Session Chair: Prof. Eric Robert / Prof. Sun Jung Kim)			
Time	**Type**	**Speaker**	**Title**
15:10 – 15:30	**Invited Talk**	Prof. M. S. Roopesh (University of Alberta, Canada)	Enhanced Inactivation of Multispecies Biofilms Using Plasma-Activated Nanobubble Water Combined with UV-C and Hydrogen Peroxide
15:30 – 15:50	**Invited Talk**	Prof. XinPei Lu (Huazhong University of Science and Technology, China)	An ETOP-Based Unified Plasma Dose Framework Incorporating Chemical, Electrical, and Photonic Effects
15:50 – 16:10	**Invited Talk**	Prof. Mudtorlep Nisoa (Walailak University, Thailand)	Engineering a Scalable Plasma-Activated Water System with Tunable Reactive Species for Nitrogen Fixation and Sustainable Agricultural Applications
16:10 – 16:30	**Invited Talk**	Dr. Jihwan Kim,(Baekse Korean Medical Clinic, Korea)	The Dawn of Quantum Therapy and Bio-Therapeutic Applications of Infrared Pearlite Boards
16:30 – 17:20	**Poster Session (2F, 80th Anniversary Bldg.) with Tea Break**		
17:20 – 19:20 | Special Session 1 (Wed3) — Young Researchers Presentation with Panel Discussion (Session Chair: Prof. Hiromasa Tanaka / Dr. Sybille Hasse / Prof. Ashish Ranjan Sharma)			
Time	**Type**	**Speaker**	**Title**
17:20 – 17:35	**Invited Young Researcher**	Dr. Tirtha Raj Acharya (University of Nottingham, United Kingdom)	Low Temperature Plasma-Assisted Synthesis of HCN and CO from C, N2, and H2O for Sustainable Oxamide Fertilizer Production

17:35 – 17:50	**Invited Young Researcher**	Dr. Tejal Barkhade (Parul University, India)	Comparative Investigation of DC and Microwave Plasma Systems for Bacterial Inactivation: Spectroscopic and Microscopic Analysis
17:50 – 18:05	**Invited Young Researcher**	Dr. Kittipit Klanliang, (Chiang Mai University, Thailand)	Antibacterial Efficacy of Plasma-Activated Water Against Enterococcus faecalis Biofilms: An In Vitro and Ex Vivo Study
18:05 – 18:20	**Invited Young Researcher**	Dr. Kochakon Moonsub (ChiangMai University, Thaniland)	Engineering Plasma-Activated Hydrogel Conditions for Enhanced Inactivation of Pseudomonas aeruginosa
18:20 – 18:35	**Invited Young Researcher**	Dr. Roshani Dahal (KAIST, Korea)	$ZnFe_2O_4$-Catalyzed Dielectric Barrier Discharge Plasma for Sustainable Degradation of Sulfathiazole in Aqueous phase
18:35 – 18:50	**Invited Young Researcher**	Ms. Lavanya Jayasankar (SRIHER, India)	Effects of Cold Atmospheric Plasma in Head and Neck Squamous Cell Carcinoma Ex Vivo
18:50 – 19:05	**Invited Young Researcher**	Ms. Devi Maigandan (SRIHER, India)	Comparative Evaluation of Plasma Feed Gases on Antimicrobial Activity and Wound Healing Responses in Diabetic Foot Ulcer
19:05 – 19:20	**Invited Young Researcher**	Dr. Apurva Jaiswal (PBRC, Korea)	Nonthermal Plasma-Driven Skin Rejuvenation with Nitric Oxide Water
19:20 onwards	**Welcome Reception (2F, 80th Anniversary Bldg.)**		

Day 2 — Thursday, 13 August 2026

09:00 – 10:10 | Technical Session 3 (Th1) (Session Chair: Prof. Nagendra Kumar Kaushik / Prof. Janardhan Reddy)

Time	Type	Speaker	Title
09:00 – 09:30	**Plenary Talk**	Prof. Masaharu Shiratani (Kyushu University, Japan)	Low-Temperature Plasma as a Gene-Switching Technology: A New Paradigm in Plasma Bio-Science
09:30 – 09:50	**Invited Talk**	Prof. Jun-Seok Oh (Osaka Metropolitan University, Japan)	UV-vis Spectrophotometry for Measuring Plasma-induced Reactive Oxygen and Nitrogen Species
09:50 – 10:10	**Invited Talk**	Prof. Kazunori Koga (Kyushu University, Japan)	Differential Roles of Atomic Oxygen and Ozone in Germination Enhancement and Protein Modification of Rice Seeds
10:10 – 10:20	**Tea Break**		

10:20 – 12:00 │ Technical Session 4 (Th2) (Session Chair: Prof. Masaharu Shiratani / Prof. Gyungsoon Park)			
Time	**Type**	**Speaker**	**Title**
10:20 – 10:40	**Invited Talk**	Prof. Sanghoo Park (KAIST, Korea)	Breaking the Well-Mixed Assumption in Closed Air Plasma Reactors: Thermal Stratification Governs O3-to-NOx Chemistry
10:40 – 11:00	**Invited Talk**	Prof. Wassanai Wattanutchariya (Chiangmai University, Thailand)	From Plasma-Activated Water to Plasma-Activated Hydrogel: Advancing Stable Plasma Therapeutics for Biomedical Applications
11:00 – 11:20	**Invited Talk**	Prof. Le Manh Cuong (Tue Tinh Hospital, Vietnam)	Cold Plasma in Clinical Treatment at Tuệ Tĩnh Hospital, Vietnam
11:20 – 11:40	**Invited Talk**	Prof. Pham Huy Dung (Thang Long University, Vietnam)	Nano-Redox Pathology and Triadic Biological Effects of Cold Atmospheric Plasma: A Theoretical Framework for Translational Plasma Medicine
11:40 – 12:00	**Invited Talk**	Prof. Lakshminarayana Rao (IISc Bangalore, India)	Plasma-Activated Water and Its Application in Medicine and Agriculture
12:00 – 12:20	**Light Lunch Box Distribution and Proceed for Tour Bus**		
12:00 – 18:30	**Conference Tour / Excursion — Plasma Agriculture Farm • Paju DMZ Tour**		
18:30 onwards	**Banquet/Gala Dinner (2F, 80th Anniversary Bldg.)**		

Day 3 — Friday, 14 August 2026			
09:00 – 10:10 │ Technical Session 5 (Fri1) (Session Chair: Prof.Sanghoo Park / Prof. Wassanai Wattanutchariya)			
Time	**Type**	**Speaker**	**Title**
09:00 – 09:30	**Plenary Talk**	Prof. Alexander Fridman (Drexel University, USA)	Non-Thermal Gliding Arcs in Tornado: Scaling Up for Agricultural and Food Processing Applications
09:30 – 09:50	**Invited Talk**	Prof. Keping Yan (Zhejiang University, China)	High Voltage Power Sources for Plasma and Electric field Processing
09:50 – 10:10	**Invited Talk**	Dr. Christian Seebauer (UKSH, Lübeck, Germany)	Cold Atmospheric Plasma as an Adjunctive Preventive and Therapeutic Approach for Radiation Dermatitis: A Observational Case Series
10:10 – 10:20	**Tea Break**		

10:20 – 12:10 | Technical Session 6 (Fri2) (Session Chair: Prof. Hyungyu Lee / Prof. Ravi Gupta)

Time	Type	Speaker	Title
10:20 – 10:50	**Plenary Talk**	Prof. Wonho Choe (KAIST, Korea)	Unraveling Physicochemical Phenomena in Plasma–Liquid Systems
10:50 – 11:10	**Invited Talk**	Prof. Byung-Wook Yun (Kyungpook National University, Korea)	Nitric Oxide and Redox Signaling in Plants; From Molecular Mechanisms to Plasma-Activated Water
11:10 – 11:30	**Invited Talk**	Prof. Kamatchi Sankaranarayanan (IASST-DST, India)	Cold Atmospheric Plasma Technology for Biomaterials Design: Liquid–Liquid Phase Separation Driven Self-Assembly of Biomolecules
11:30 – 11:50	**Invited Talk**	Prof. Rajesh Gandhirajan (SRIHER, India)	Engineering Reactive Species In Biology: Translational Applications of Cold Atmospheric Plasma Across Plant, Infection, and Cancer Models
11:50 – 12:10	**Invited Talk**	Prof. Han S. Uhm (PBRC, Korea)	Properties of NO in blood and its influence on our health
12:10 – 13:10	**Lunch Break**		

13:15 – 14:30 | Industry Technical Session 7 (Fri3) (Session Chair: Prof. Jang Sick Park / Prof. Eun Ha Choi)

Time	Type	Speaker	Company
13:15 – 13:30	**Industry Talk**	Prof. Jinsung Choi	Plasade Co., Ltd.
13:30 – 13:45	**Industry Talk**	Mr. Dae Kyu Joo	Bioplatech Co., Ltd.
13:45 – 14:00	**Industry Talk**	Mr. Joon Hyung Bae	Dawoo Korea Co., Ltd.
14:00 – 14:15	**Industry Talk**	Ms. Misun Lee	Cold Pla co., Ltd.
14:15 – 14:25	**Tea Break**		

14:25 – 15:45 | Technical Session 8 (Fri4) (Session Chair: Dr. Nguyen Nhat Linh / Prof. Neha Kaushik)

Time	Type	Speaker	Title
14:25 – 14:45	**Invited Talk**	Prof. Eun Ha Choi (Kwangwoon University, Korea)	Brief Report of IEC60601-2-91, WG41,TC62D “Particular requirements for the basic safety and essential performance of non-thermal plasma wound treatment equipment”
14:45 – 15:05	**Invited Talk**	Prof. Pradoong Suanpoot (Maejo University, Thailand)	Effect of Atmospheric Pressure Cold DBD Plasma on Seed Germination and Crop Yield of Sticky Rice and White Rice Varieties during the Wet Season
15:05 – 15:25	**Invited Talk**	Prof. Janardhan Reddy Koduru (Kwangwoon University, Korea)	Plasma-Enabled Interfacial Engineering: A Sustainable Pathway Toward Next-Generation Materials

15:25 – 15:45	**Invited Talk**	Prof. Gyungsoon Park (Kwangwoon University, Korea)	Plasma application to soil and hydroponic culture
15:45 – 15:55	**Tea Break**		
15:55 – 17:15 | Technical Session 9 (Fri5) (Session Chair: Prof. M. S. Roopesh / Prof. Mudtorlep Nisoa			
Time	**Type**	**Speaker**	**Title**
15:55 – 16:15	**Invited Talk**	Prof. Jang Sick Park (PBRC, Korea)	Humidity and Temperature Effects on Plasma Chemistry Dynamics in a Parallel-Plate DBD Source
16:15 – 16:35	**Invited Talk**	Prof. Hyungyu Lee (Kwangwoon University, Korea)	Diagnostics and Simulation for Plasma Chemistry
16:35 – 16:55	**Invited Talk**	Dr. Nguyen Nhat Linh (Vietnam Academy of Science and Technology, Vietnam)	Autonomous Synthesis and Materials Informatics in Plasma Technology: Advancing Materials for Energy and Environmental Applications
16:55 – 17:15	**Invited Talk**	Prof. Yung Oh Shin (PBRC, Korea)	Increasing Role of Antiviral Disinfectants in the Control of Emerging Viral Diseases
17:15 – 17:25	**Tea Break**		
17:25 – 19:25 | Technical Session 10 (Fri6) (Session Chair: Prof. Pradoong Suanpoot / Prof. Kamatchi Sankaranarayanan / Prof. Rajesh Gandhirajan)			
Time	**Type**	**Speaker**	**Title**
17:25 – 17:45	**Invited Talk**	Prof. Ashish Ranjan Sharma (Hallym University, Korea)	Plasma-Activated Media Stimulate Osteogenic Differentiation in Osteoblasts via ROS-Mediated WNT Signaling: A Novel Approach for Bone Regeneration
17:45 – 18:05	**Invited Talk**	Mr. JeongKun Ryu (Dr. Yim's Institute of Constitutional lifestyle, Korea)	Sasang Constitution as a Stratification Variable for Inter-Individual Variance in Nitric Oxide Response: Toward Convergence with Plasma-Generated NO Water
18:05 – 18:25	**Invited Talk**	Prof. Umesh Kumar (Chandigarh University, India)	Epigenetic Reprogramming by Curcumin in Cancer: Emerging Opportunities for Precision Oncology and Translational Therapeutics
18:25 – 18:40	**Oral Lecture**	Prof. Ravi Gupta (Kookmin University, Korea)	Proteomic insights into the rice responses to Magnaporthe oryzae
18:40 – 18:55	**Oral Lecture**	Prof. Neha Kaushik (Suwon University, Korea)	Nonthermal Plasma-Mediated Transcriptional Rewiring for Breast Cancer Therapy
18:55 – 19:10	**Oral Lecture**	Prof. Ihn Han (PBRC, Korea)	Plasma- Activated NO water (PNOW) for Sterilisation and Growth Support in Hydroponic Cultivation

19:10 – 19:25	**Oral Lecture**	Prof. Nagendra Kumar Kaushik (Kwangwoon University, Korea)	Plasma-Generated Nitric Oxide Water for Pathogen Control and Skin Cosmetics
19:25 – 19:35	**Awards & Closing Declaration**		
19:35 onwards	**Traditional Local Dinner**		

Notes
* Note for presentation time limits: Tutorial: 30 mins (including Q&A) Plenary Lecture: 30 mins (including Q&A) Invited Lecture: 20 mins (including Q&A) Special Session – Young Researchers: 15 mins (including Q&A) Oral Lecture :15 mins (including Q&A) Industry Session:15 mins (including Q&A)
* Note for poster size limits: Poster must fit within a 0.9 m × 1.8 m poster board space. Standard recommended poster size is 0.9 m (Width) × 1.2 m (Length) (Around A0 size)

Poster Presentations

Day 1 — Wednesday, 12 August 2026

16:30 – 17:20 Poster Session (2F, Lobby, 80th Anniversary Building)

Poster No.	Name	Affiliation	Title
P1	Ms. Anchal Bhatnagar	Kwangwoon University, Korea	Improvement of bacterial enterobactin production by using atmospheric pressure non-thermal plasma
P2	Ms. Lavanya Jayasankar	Sri Ramachandra Institute of Higher Education and Research (SRIHER), India	Effects of Cold Atmospheric Plasma in Head and Neck Squamous Cell Carcinoma Ex Vivo
P3	Ms. Anahita Vispi Bharda	Kwangwoon University, Korea	Exploring Plasma Activated NO Water for Stress Mitigation, Muscle Health and Aging
P4	Mr. Subhadip Mukherjee	Kwangwoon University, Korea	Plasma-Generated Nitric Oxide Water as an Antiviral Strategy Against Vaccinia Virus
P5	Ms. Neha Rana	Kwangwoon University, Korea	Mapping nitrosative hotspots in coronavirus spike glycoproteins for virus inactivation
P6	Mr. Sang-Hyun Cho	Yonsei University, Korea	Surface Modification of β-Tricalcium Phosphate Scaffold by Hydration with Plasma-Activated Solutions
P7	Ms. Wirinthip Ketya	Kwangwoon University, Korea	Analysis for the growth of bok-choy (Brassica rapa subsp. chinensis) in plasma-applied hydroponic culture
P8	Ms. Rakeb Kifle Alemu	Kwangwoon University, Korea	Synergistic Effects of Non-Thermal Plasma and Fungal Pretreatment on Sustainable Bioethanol and Nanocellulose Production using Used Coffee Ground
P9	Mr. Jong Hun Jeong	Kwangwoon University, Korea	Spent granular activated carbon regeneration using peroxydisulfate in Dielectric Barrier Discharge system
P10	Dr. Zaffar Iqbal	Kwangwoon University, Korea	Non-Thermal plasma induced degradation of methyl paraben: Role of hydroxyl radicals and toxicity mitigation
P11	Ms. Ye-Jin Kim	Kwangwoon University, Korea	Development of Treatment Technology for High-Efficiency PFOA Decomposition Using DBD Plasma–NaOCl Hybrid Advanced Oxidation Process
P12	Mr. JaeHyoung Lee	Kwangwoon University, Korea	Ru-loaded on ZIF-67 for improving photocatalytic ammonia production
P13	Dr. Chhakchhuak Vanlalhmingmawia	Kwangwoon University, Korea	Synergy of Nonthermal Plasma and Multifunctional $MnFe_2O_4$/Boron-Doped Graphene Hybrid Catalyst for Efficient Pharmaceutical Wastewater Remediation
P14	Mr. Dhruv Sharma	Kwangwoon University, Korea	Space Pathogens: Survival and Virulence in Crewed Space Missions and Plasma-Based Control Strategies
P15	Ms. Surabhi P Baburajan	Kwangwoon University, Korea	Reactive Species-Driven Degradation of Organic Pollutants Using a Dielectric Barrier Discharge Plasma System

Poster No.	Name	Affiliation	Title
P16	Ms. Devi Maigandan	SRIHER, India	Comparative Evaluation of Plasma Feed Gases on Antimicrobial Activity And Wound Healing Responses in Diabetic Foot Ulcer
P17	Mr. Piyush Verma	Institute of Nuclear Medicine and Allied Sciences (INMAS), India	Potential of ATR-FTIR Spectroscopy and Molecular Parameters in Elucidating Immune Responses Associated with Burn Injury
P18	Prof. Do Young Kim	Co-president, Institute of Future Security Industry Strategy, Korea	Integrated Multi-Layered Security Technologies for Critical Infrastructure Protection: UAV Platforms, AI Surveillance, Counter-UAS and Industrial Cyber Security
P19	Ms. Ananya Chakraborty	Indian Institute of Technology Delhi (IIT Delhi), India	Experimental Characterization of a Dual Dielectric Barrier AC Plasma Jet for Biomedical Applications
P20	Prof. Feng Huang	China Agricultural University (CAU), China	The Self-organizing Behavior in Ethylene Radio Frequency Plasma Discharge
P21	Dr. Shikha Pandey	Indian Institute of Technology Madras, Chennai, India	Analytical Modelling for Predicting Methane Conversion and Hydrogen Yield in Non-Thermal Plasma-Assisted Methane Pyrolysis
P22	Dr. Sanjeev Kumar Pasawan	Mutli-Functional Plasma Laboratory (MFPL), Department of Energy Science and Engineering, Indian Institute of Technology, Dehli-110016, India	Plasma process for controlled magnetron sputtered tricalcium phosphate films for antimicrobial efficacy for orthopedic implants
P23	Ms. Priya Bhatt	DST-IASST, Guwahati, India	Cold Atmospheric Plasma Technology Enabling Fabrication of Peptide-Based Supramolecular Gels for Potential Electrochemical Applications
P24	Dr. Sushma Jangra	Indian Institute of Technology Jodhpur, India	Atmospheric Pressure Dielectric Barrier Discharge Plasma for Pesticide Remediation in Model Soil: GC-MS Analysis, Degradation Mechanisms, and Toxicity Evaluation
P25	Dr. Pawan Tiwari	Birla Institute of Technology, Mesra, India	Microscopic Plasma Discharges: A Potential application of Plasma Streamers in the Fabrication of Biomedical Plasma Apparatuses
P26	Mr. Rupam Ghosal	Birla Institute of Technology, Mesra, India	Plasma-Mediated AI Enabled Breath Biosensor for Respiratory Disease Diagnostics and Therapeutics
P27	Ms. Riddhima Sadhu	Birla Institute of Technology, Mesra, India	Optical Coherence Tomography: An Emerging Modality in Deep Tissue Imaging
P28	Mr. Saidul Sk	Indian Institute of Technology Delhi (IIT Delhi), India	Engineering and Optimization of a Low Frequency Power Cold Atmospheric Pressure Plasma Jet for Biological Application

Industry Sessions

PLASADE Co., Ltd.

PLASADE Co., Ltd., led by CEO Prof. Eun Ha Choi, is a Korean plasma technology company specializing in the research, development, and commercialization of innovative plasma solutions for healthcare, bioscience, environmental, agricultural, and industrial applications. Company is spin off startup by Prof. Eun Ha Choi, Director of Plasma Bioscience Research Center (PBRC) at Kwangwoon University, the company develops eco-friendly plasma devices and advanced plasma-based technologies to address real-world challenges in sterilization, air and water purification, agriculture, and biomedical engineering. PLASADE operates a dedicated research institute with a multidisciplinary team of scientists and engineers and is committed to translating cutting-edge plasma research into practical, high-performance products through continuous innovation, industry–academia collaboration, and technology commercialization.

BIO PLATECH Co., Ltd.

BIO PLATECH Co., Ltd., led by CEO Dae-gyu Joo, is a Korean research-driven company specializing in plasma technology for healthcare, environmental, and industrial applications. In collaboration with the Plasma Bioscience Research Center (PBRC) at Kwangwoon University, the company develops and manufactures innovative plasma-based medical devices, air sterilization systems, and environmental solutions. BIO PLATECH has obtained GMP certification for medical device manufacturing and operates a certified corporate research institute. Its key achievements include the commercialization of the Plasma Cure Air sterilizer with proven 99.9% coronavirus removal performance, participation in government-funded R&D projects, and the development of advanced monitoring and odor-removal technologies for public and industrial applications.

DAWOO Korea Co., Ltd.

DAWOO Korea, led by CEO Jun-hyung Bae, is a Korean technology company specializing in the development and manufacturing of advanced plasma-based air sterilization systems. Utilizing its proprietary high-density plasma technology, the company provides innovative solutions for reducing airborne pollutants, bacteria, and viruses, creating safer and healthier indoor environments across hospitals, ambulances, public facilities, commercial buildings, and residential spaces. Developed in collaboration with the Plasma Bioscience Research Center (PBRC), Kwangwoon University, DAWOO Korea's plasma sterilization technology has received broad recognition for its innovation and performance. Through continuous innovation and quality excellence, DAWOO Korea is committed to advancing next-generation plasma technologies for healthier living environments.

ColdPla Co., Ltd.

ColdPla Co., Ltd., under the leadership of CEO Mi-seon Lee, is a Korean innovator in cold plasma-based solutions for beauty, wellness, and personal healthcare. Integrating cutting-edge plasma technology with intuitive product design, the company delivers advanced devices for skin care, hygiene, and home healthcare applications. Driven by technological excellence, ColdPla is committed to providing safe, effective, and scientifically proven solutions that support healthier lifestyles. Through ongoing research and development, continuous product innovation, and a customer-centric approach, the company continues to strengthen its competitive edge in the global market. Building on its proprietary patented technologies, ColdPla is now ambitiously expanding its reach into the medical industry.

Plasade Co., Ltd.

16th INTERNATIONAL SYMPOSIUM ON PLASMA BIOSCIENCE (ISPB 2026) 12 (Wed) - 14 (Fri) August 2026

Bio Application

Material Science

Infection Control

Environment

Agriculture

Space Technology

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