19th International Phytotechnologies Conference

	Monday, Oct 26		Tuesday, Oct 27		Wednesday, Oct 28	
7:30	**Breakfast**		**Breakfast**		**Breakfast**	
8:30 8:45	Registration Opens		**Plenary Session**: Closer to Zero: Reducing Toxic Elements in Food Narragansett Room B&C		**Plenary Speaker**: Kate Kennen	
9:00	Opening & Welcome				Micro & Nanoplastics	Phyto Feasibility & Acceptance
9:15 9:30 9:45 10:00	**Keynote Speaker**: D. Marshall Porterfield Narragansett Room B&C				Coffee Break	
10:15	Break				**Education Panel** Lee Newman David Tsao	
10:30 10:45 11:00	Green Infrastructure & Water	Inorganic Contaminants				
11:15	Break				**Closing Plenary** Neil Bruce Awards Election results IPC 20	
11:30 11:45 12:00	Nanomaterials	Organic Contaminants				
12:15 12:30 12:45 13:00	**Lunch** Narragansett Room A		**Lunch** Narragansett Room A			
13:15 13:30 13:45 14:00	**Career Panel:** Narragansett Room B&C		**Science Communication Panel** Keynote: Renee Murphy Narragansett Room B&C		**Field Trip:** **Stormwater Innovation Center**	
14:15 14:30 14:45 15:00 15:15	PFAS	Phytomining I	Rhizospheric Interactions: Organic Compounds	Field Trial Advances		
15:30	Coffee Break		Coffee Break			
15:45 16:00 16:15 16:30	Rhizospheric Interactions: Inorganic Compounds	Phytomining II	Agriculture & Food Safety	Salinity & Plants		
16:45 17:00 17:15 17:30	**Poster & Networking Session** Narragansett Room B&C		**IPS Business Meeting** Open to all Narragansett Room B&C			
17:45 18:00 19:00	IJP Meeting & Dinner **(invite only)**		**IPS No-Host Dinner** Open to all Trinity Brewhouse Pay on your own			

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	Monday, Oct 26	
7:30	**Breakfast:** Narragansett Room A	
8:30 8:45	Registration Opens	
9:00 9:15	**Opening & Welcome: Narragansett Room B&C** President's Welcome: **Barb Zeeb** Rhode Island Welcome and Overview of RI's Resilience Efforts: **Kim Korioth** (Introduction by Renee Stoops)	
9:30	**Keynote Speaker**: **D. Marshall Porterfield** (Introduction by Joel Burken) Narragansett Room B&C	
10:15	Break	
10:30	**Session 1: Green Infrastructure & Water -- Waterplace Ballroom 1** **Chair: Karah Conklin**	**Session 2: Inorganic Contaminants -- Waterplace Ballroom 2** **Chair: Liz Rylott**
10:30	**Karah Conklin**: Let the Marsh Work: Natural Remediation in Tidal Wetland Systems	**Longhua Wu**: Paclobutrazol Enhances Phytoremediation Efficiency of *Sedum plumbizincicola* by Biomass Promotion and Flowering Inhibition
10:45	**Laura Passatore**: La Goccia Urban Woodland - from a Polluted Spontaneous Ecosystem to a Public Green Area	**Tim Cary**: Grass is a tattletale: using grass as a biomonitoring tool for remote sensing of coal combustion residue contamination
11:00	**Lou Licht**: Water Dynamics on a Landfill Phyto Cover Irrigated with Leachate	**Hayat Kashif**: Citric acid-driven Cadmium Uptake and Growth Promotion Mechanisms in *Brassica napus*
11:15	Break	
11:30	**Session 3: Nanomaterials -- Waterplace Ballroom 1** **Chair: Azam Noori**	**Session 4: Organic Contaminants -- Waterplace Ballroom 2** **Chair: Barb Zeeb**
11:30	**Azam Noori**: Root-to-Fruit Partitioning of Silver Nanoparticles and Plant Elemental Homeostasis	**Gregory Cohen**: Soil Dieldrin Removal by Phytoextraction: a Promising Approach for Agricultural OCP-contaminated Soil Management and Remediation
11:45	**Sudhir Sharma**: Assessing the Efficacy of Cellulose Nanofibers Soil Amendment in Reducing Heavy Metal Bioavailability and Accumulation in Lettuce	**Maria J Rodrigues**: Early Uptake Dynamics and Stress Responses of *Plantago coronopus* during Exposure to Key Pharmaceutical Micropollutants
12:00	**Nicolas Kalogerakis**: Phytoremediation of Sb-contaminated soils enhanced by the addition of organic acids and irrigation supplemented with oxygen-nanobubbles	**Varuni Abhayaratne**: Phytoforensic Analysis of 1,4-dioxane to Assess Plant Uptake and Bio-augmented Rhizodegradation
12:15 12:30 12:45 13:00	**Lunch** **Narragansett Room A**	
13:15 13:30 13:45 14:00	**Career Panel** Barb Zeeb, David Tsao, Joel Burken -- Chair: Liz Rylott Narragansett Room B&C	
14:15	**Session 5: PFAS -- Waterplace Ballroom 1** **Chair: Barry Harding**	**Session 6: Phytomining I -- Waterplace Ballroom 2** **Chair: Om Parkash Dhankher**
14:15	**Benoit Van Aken**: Bioaccumulation and Seasonal Cycling of PFAS in Native Chesapeake Bay Aquatic Vegetation	**Elizabeth Rylott**: Engineering High-Biomass Plant Platforms for Critical Element Recovery
14:30	**Nubia Zuverza**: Immobilization and Phytoextraction: Strategies to limit PFAS food contamination or improve soil remediation	**Olivia Laurine**: A Multiscale Platform for Imaging and Chemical Characterization of Rare Earth Elements in Plants
14:45	**Tong Zhou**: Uptake, Translocation, and Thermal Degradation of Perfluoroalkyl Substances in Plants: Implications for Food Security and Phytoremediation	**Colleen Doherty**: Exploring Rare Earth Element Uptake and Localization in Hyperaccumulating Plants
15:00	**Kirby Gimson**: Phytoremediation of PFAS: Critical Evaluation of Mechanisms, Performance, and Sustainable Field Applicability	**Mariam Al-Lami**: Environmental Impact Assessment of Critical Mineral Extraction from Legacy Mine Tailings
15:15	**Leonard Mankowski**: A Phyto-Enhanced In-Situ Retention (PEIR) Barrier to Intercept a Groundwater PFAS Plume -- The First Step in Creating a Circular Economy PFAS Remedial Approach	**Mariam Al-Lami**: Long-Term Amendment-Assisted Phytoremediation and Geochemical Stabilization of Pb/Zn/Cu Mine Tailings
15:30	Coffee Break	
15:45	**Session 7: Rhizospheric Interactions: Inorganic Compounds -- Waterplace Ballroom 1** **Chair: Joel Burken**	**Session 8: Phytomining II -- Waterplace Ballroom 2** **Chair: Om Parkash Dhankher**
15:45	**Jess Rubin**: Investigating Myco-Phytoremediation in a Restored Multi-Functional Riparian Forested Buffer	**Giuliano Sting Pechar**: Engineering Plant-mediated Nickel Solubilisation in the Rhizosphere
16:00	**Marta Pogrzeba**: Arbuscular Mycorrhizal Symbiosis in Miscanthus: Responses to Extreme Soil Metal Contamination	**Suresh Kumar Gupta**: Integrated Transcriptomics and Metabolomics Provide Insights into the Nickel Hyperaccumulation Trait of *Odontarrhena chalcidica*
16:15	**Danielle Stevenson**: Fungi Increase Lead, Arsenic and Hexavalent Chromium Phytoremediation from Contaminated Soils in Los Angeles	**Yogita Singh**: Omics-Guided Insights into Nickel Tolerance and Accumulation Mechanisms in *Camelina sativa* for Sustainable Phytomining
16:30	**Barry Harding**: E-Flux Clear-Wells: Field Applications for Micro-scale In-Situ Root Imaging	**Thomas Chaires**: Integrating Plant Selection and Cultivation Management to Develop *Streptanthus polygaloides* for Nickel Phytomining
16:45 17:00 17:15 17:30	**Poster & Networking Session** **Narragansett Room B&C**	
17:45	IJP Meeting & Dinner **(invite only)**	

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	Tuesday, Oct 27	
7:30	**Breakfast:** Narragansett Room A	
8:30	**Plenary Session**: Closer to Zero: Reducing Toxic Elements in Food -- Narragansett Room B&C	
8:30	Opening Remarks: Jason White & Om Parkash Dhankher	
8:40	**Om Parkash Dhankher**: Strategies for Mitigating Arsenic Accumulation in Food Crops	
9:05	**Matt Limmer**: Predicting Rice Grain Accumulation of Arsenic	
9:30	**Lili He**: Rapid and Cost-Effective XRF Measurement of Total and Inorganic Arsenic in High-Risk Foods	
9:55	**Olena Vatamaniuk**: From Gene to Grain and Farm-to-Food Continuum: Integrating Plant Metal Biology and Synchrotron Science to Reduce Toxic Elements in Foods	
10:20	Coffee Break	
10:45	**Devin Rose**: Reducing Cadmium Toxicity to the Human Gut Microbiota	
11:10	**Eileen Abt**: FDA's Role in Managing Toxic Elements in Foods and in Advancing International Harmonization of Standards	
11:35	**Panel Discussion**	
12:15 12:30 12:45 13:00	**Lunch** **Narragansett Room A**	
13:15 13:30 13:45 14:00	**Science Communication Panel** **Keynote Speaker: Renee Murphy** (Introduction by Doug Burge) Narragansett Room B&C	
14:15	**Session 9: Rhizospheric Interactions: Organic Compounds -- Waterplace Ballroom 1** **Chair: Lou Licht**	**Session 10: Field Trial Advances -- Waterplace Ballroom 2** **Chair: Kendra Waltermire**
14:15	**Harrison Atagana**: Isolation and Characterization of Endophytic Bacteria and Fungi Capable of Enhancing Phytoremediation of Hydrocarbon Polluted Soil from the Medicinal Plant, *Vernonia amygdalina* Delile.	**Wilson Waanab Zoogah**: Effects of Soil Amendments on Carbon-Based Indicators of Ecosystem Recovery in Revegetated Mine Soils: Integrating Labile Carbon, Total Organic Carbon, and CO_2 Flux
14:30	**G. Annie Mailloux**: Going Deeper: Insights for Phytoremediation from Recent Plant Rooting Depth Research	**Matthew Poltorak**: Comprehensive Monitoring of an Endophyte-Assisted-Phytoremediation System Using Advanced Methods
14:45	**Wenjie Ren**: Dynamic Characteristics of Fomesafen Dissipation in Soybean Rhizosphere and the Underlying Microbial Mechanisms: A Multi-omics Perspective	**Brad Helland**: Long-Term Field Study of VOC Phytoremediation in an Urban Environment
15:00	**Ying Teng**: Endogenous Biohydrogen from a Rhizobium-legume Association Drives Microbial Biodegradation of Polychlorinated Biphenyl in Contaminated Soil	**Clara Foutch**: Integrating Phytotechnology and AI/ML to Assess Post-Remediation Ecosystem Recovery at a Legacy Petroleum Site in Michigan
15:15	**Maria Isabel Nogues Gonzalez**: Remediation of Contaminated Soils Combining Biochar with Bioaugmentation and Phytoremediation Techniques	**Barry Harding**: Use of Large Language Models (LLM) in the Design and Assessment of Performance Monitoring Data at Phytoremediation Sites
15:30	Coffee Break	
15:45	**Session 11: Agriculture & Food Safety -- Waterplace Ballroom 1** **Chair: Jason White**	**Session 12: Salinity & Plants -- Waterplace Ballroom 2** **Chair: Barb Zeeb**
15:45	**Jason White**: Micro-nanoscale polystyrene and polyvinyl chloride co-exposure impacts the uptake and translocation of toxic elements and pesticides by lettuce and wheat	**Cassandra Collins**: Integrated Phytoremediation and Rhizosphere Microbial Characterization of Saline Industrial Soils
16:00	**Menhas Saiqa**: Sustainable Production of Selenium-rich and Cadmium-safe Rice by nZVI-melatonin Synergy via Coordinated Plant-microbe Regulation	**Barbara Zeeb**: Halophyte-Based Remediation of Saline Environments: Case Study Perspectives
16:15	**Shuai Yang**: Optimizing Rice Growth and Soil Heavy Metal Removal with Agroforestry Waste Biomass-Derived Composite Washing Agent	**Tiziana Centofanti**: Biological Humidification: A Nature-Based Strategy for Solar Desalination using Vertical Halophyte Farming
16:30	**Hadeel Obeidat**: The Effect of Biomaterials Coating on Sensory Properties of Potatoes During Storage	**Gary Banuelos**: Identification of Plant Species for the Utilization of Simulated Saline Effluent Produced from Reverse Osmosis
16:45 17:00 17:30	**IPS Business Meeting** **Narragansett Room B&C** Open to all	
18:00 18:15 18:30	**IPS Dinner** Open to all, Trinity Brewhouse Pay on your own	

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	Wednesday, Oct 28	
7:30	**Breakfast:** Narragansett Room A	
8:30 8:45	**Plenary Speaker**: **Kate Kennen** (Introduction by Renee Stoops) Narragansett Room B&C	
9:00	**Session 13: Micro & Nanoplastics -- Waterplace Ballroom 1** **Chair: Chen Tu**	**Session 14: Phyto Feasibility & Acceptance -- Waterplace Ballroom 2** **Chair: David Tsao**
9:00	**Yongming Luo**: Tracing and Quantification of Uptake and Distribution of Micro and Nanoplastics in Plants	**Kendra Waltermire**: Phytoremediation Feasibility and Defensible Evidence for Field Studies
9:15	**Chen Tu**: Biofilm Formation and the Underlying Mechanisms Involved in Microplastic Biodegradation	**Christopher Cohu**: Trees and Microbes as a Sustainable Phytoremediation Solution for Petroleum Hydrocarbon and Mixed Waste Impacted Sites
9:30	**Jie Yang**: Clay Minerals Limit Nanoplastic Uptake in Wheat Plant	**Douglas Burge**: Fast-Track Brownfield Remediation and Sustainable Closure Using Phytoremediation
9:45	Coffee Break	
10:00 10:15 10:30 10:45	**Phyto Education Panel** **Lee Newman & David Tsao** Narragansett Room B&C	
11:00 11:00 11:30 11:45 12:00	**Closing Plenary** Closing Plenary Speaker: **Neil Bruce** (Introduction by Om Parkash Dhankher) Awards Election results IPC 20	
13:00 13:30 14:00 14:30 15:00 15:30 16:00 16:30	**Field Trip: The Stormwater Innovation Center** The Stormwater Innovation Center (SIC) is a collaborative initiative dedicated to improving water quality and stormwater management in Rhode Island. From green infrastructure research to professional trainings to community science programs, we lead a wide range of initiatives addressing stormwater challenges comprehensively. Through collaborative projects with government, non-profits, and industry partners, we connect research, education, and real-world implementation to build a cleaner, more resilient future for Rhode Island's waterways.	

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Poster #	Poster Presenter	Poster Title
1	Mariam Al-Lami	Evaluating the Phytotoxicity of Beet Juice-Amended Road Deicers on Roadside Vegetation Compared to Traditional Deicing Salts
2	Leanne Bulger	Diesel Fuel Uptake in Phytoremediative Feltleaf Willow
3	Owen Collins	Assessing the Feasibility of Hybrid Poplars for Sulfate Phytoremediation at a Northern Minnesota Site
4	Syed Ovais Aftab	Characterization of AtLAP1 Gene in Arabidopsis to Unravel its Role in Abiotic Stress Tolerance
5	Manzeal Khanal	Dual Cu and Zn Phytoremediation Potential of *Atriplex lentiformis* under Sequential Metal Exposure-Harvest Cycles
6	Kento Takenouchi	Evaluation of Ni Absorption and Accumulation Capacity in the Cd Accumulator *Salix matsudana* var. tortuosa Towards Ni Phytomining
7	Charles Getter	From Brownfield to Phytoremediation Pilot: Willows, Poplars, and Tribal Stewardship on the Yaquina River on the Oregon Coast
8	Josphat Kinyua Kiunga	Functional Complementation of ArsC-Deficient *Escherichia coli* Mutants with Arsenate Reductases from *Crambe abyssinica*
9	Gregory Cohen	Influence of Fruit Color and Seed Origin on Zucchini Contamination by Dieldrin
10	Bridget Didona	Molecular and Physiological Responses of *Arabidopsis thaliana* to Nanoplastic Exposure
11	Joseph Akor	Integrating Onsite Headspace GC-PID Analysis of Tree Cores with Passive Sampler Evaluation for Subsurface Chlorinated Volatile Organic Compounds Monitoring
12	Nicole Wuerslin	Evaluating Plant Germination and Contaminant Uptake in 3D-Printed Dredged Sediments
13	Zeyu Cai	Synthesis of EOs-loaded Nanocarriers and their Antibacterial Activity Against *Erwinia amylovora*
14	Kazuki Sugawara	Nickel Hyperaccumulation in Mosses and Leaching Behavior from Rocks in Japanese Serpentine Regions
15	Marta Marmiroli	Nanofertilizers and Nanobiostimulants to Improve Food Quality and Crop Resilience
16	Liz Rylott	Phytoremediation Strategies for the Detoxification of Explosive Compounds
17	Maria Luisa Antenozio	Phytotechnologies for Soils Contaminated with Pyrite Ashes: Preliminary Results from a Case Study in Central Italy
18	Joel Burken	Pilot-Scale Bioaugmented Phytoremediation to Treat 1,4-Dioxane-Contaminated Groundwater
19	Louis Arthur Licht	Septic Wastewater Treatment Results Using PhAGR at PanelView RV Park, Hermiston OR
20	Tong Zhou	Uptake and Translocation of Per- and Polyfluoroalkyl Substances by Woody and Herbaceous Plants in Field-Relevant Soil to Evaluate Phytoremediation
21	Samantha Freeman	Uptake Mechanisms of PFOA in Genetic Model plant *N. tabacum*
22	Karah Conklin	Water In, Water Out: Designing Phytoremediation into the Full Site Water Cycle
23	Raja Muthuramalingam Thangavelu	Leaf-Waste-Derived Lignin Carbon Dots as Sustainable UV-Protective Foliar Coatings for Climate-Resilient Agriculture

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Poster #	Poster Presenter	Poster Title
24	Raees Ahmad	Accumulation and Translocation of Emerging Contaminants and Their Transformation Products in Broccoli Microgreens Irrigated with Treated Wastewater
25	Sudhir Sharma	Assessing the Efficacy of Cellulose Macrofibers Soil Amendment in Reducing Heavy Metal Bioavailability and Accumulation in Lettuce Grown in Two Different Soils
26	Aneth Castaneda	Assessing Portable X-Ray Fluorescence for Metal Quantification of Serpentine Soils and *Streptanthus polygaloides*
27	Maria Isabel Nogues Gonzalez	Microbial Dynamics in Petroleum Contaminated Soil remediated with Biochar, Bioactivators, and Plants
28	Olena Vatamaniuk	X-rays for Life, Environmental, Agricultural, and Plant Sciences (XLEAP): A New Beamline Under Construction at the Cornell High Energy Synchrotron Source
29	Yi Wang	Engineering Copper- and Sulfur- Based Nanomaterials for Improved Foliar Delivery and Plant Physiological Responses