June 23-26, 2025 | Boston, Massachusetts

Seventh International Symposium on
Bioremediation and Environmental Biotechnology

Call for Abstracts

ABSTRACTS DUE December 4, 2024

battelle.org/biosymp
#BattelleBio25

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The **Seventh International Symposium on Bioremediation and Environmental Biotechnology** will be held June 23-26, 2025, in Boston, Massachusetts, at the Sheraton Boston Hotel (39 Dalton Street, Boston, MA 02199).

Battelle has organized and presented this premier international technical conference since 1991 and is pleased to announce that it will co-host the 2025 Symposium with Allonnia, a biotechnology company focused on solving the world's biggest environmental challenges.

The 2023 Bioremediation Symposium (Austin, TX | May 2023) was attended by more than 650 environmental professionals from 13 countries.

The 2025 Symposium will be designed for and presented by scientists, engineers, regulators, remediation site owners, constructors, and other environmental professionals representing universities, government agencies, consultants, and R&D and service firms from around the world. Sponsors and Exhibitors will be public- and private-sector organizations active in environmental assessment, remediation, and management.

The Bioremediation Symposium series is a forum for sharing research results, practical experiences, and opportunities associated with advances in bioremediation and sustainable remediation.

The partnership between Battelle and Allonnia for the 2025 Symposium will further enhance the technical scope of the conference to focus on advances in biological treatment, synthetic biology, and biotechnology-enabled solutions.

Symposium Overview

Short courses will be offered on Monday, June 23, 2025. The Plenary Session will convene Monday evening, after which the Welcome Reception and Exhibit Hall will open. The technical program will be conducted Tuesday, June 24, through Thursday, June 26, with platform talks and panel discussions during the day and poster receptions Tuesday and Wednesday evenings. A student poster competition will be conducted, and networking and career development opportunities will be provided for students during the Symposium.

We hope you will submit an abstract to be considered for the program. Abstracts are due December 4, 2024. The program will be developed based on the abstract review conducted by the Program Committee and the Session Chairs.

The platform and poster sessions will be organized around the following major themes:

- Innovations in Bioremediation Technologies
- Bioremediation Implementation Practices
- Application of Bioremediation to Complex Sites
- Bioremediation of PFAS
- Biodegradation of Emerging Contaminants
- Plastics
- Advanced Tools for Assessing Bioremediation
- Advances in Natural Attenuation
- Managing Petroleum Hydrocarbon-Impacted Sites
- Innovative Biological Approaches to Waste Management
- Resilient and Sustainable Remediation
- Biotechnology for Sustainable Industry
- Munitions Response
- Synthetic Biology
- Microbial Ecology
- Biomanufacturing

See pages 4-5 for the anticipated scope of the technical program and page 6 for information on preparing and submitting an abstract.

The Symposium is Organized and Presented by Battelle

Battelle's environmental engineers, scientists and professionals offer focused expertise to government and industrial clients in the U.S. and abroad. Combining sound science and engineering solutions with creative management strategies, Battelle works with clients to develop innovative, sustainable and cost-effective solutions to complex problems in site characterization, assessment, monitoring, remediation, restoration, and management.

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio, since its founding in 1929, Battelle serves the national security, health and life sciencesand energy and environmental industries.

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Symposium Co-Host

Allonnia is a bio-ingenuity company dedicated to extracting value where others see waste. Allonnia believes elegant solutions to the world's biggest problems will be found in the world's smallest organisms. We're pioneering novel approaches and imaginative combinations in biotechnology and engineering to solve waste challenges in nature, using nature.

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Symposium Sponsors

The following organizations have made financial contributions toward the general costs of planning and conducting the Symposium.

AST VERTEX
astenvironmental.com

BURNS McDONNELL
www.burnsmcd.com

CDM Smith
listen. think. deliver.
cdmsmith.com

ETEC ADVANCED BIOREMEDIATION SOLUTIONS
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REGENESIS
regenesis.com

terrasystems
terrasystems.net

Sponsorship Opportunities

For information about sponsoring specific events, see the **Sponsors & Exhibitors** page.

Technical Program Scope

Examples of anticipated presentation topics are listed below. The list is numbered to provide an easy means of referencing these topics on your abstract submittal form; see the "Submittal" paragraph on page 6.

This is not a list of sessions, nor is it a comprehensive list of topics. Abstracts are welcome on all relevant topics.

Innovations in Bioremediation Technologies

1a. Advances in Amendment Formulation
1b. Cometabolic Biodegradation and Methane Cycling
1c. Engineering Biogeochemical Transformation
1d. Enhanced Methods for Biodegradation/ Biotransformation of Organic and Inorganic Contaminants
1e. Phytoremediation
1f. Biosolids-Based Remediation
1g. Advances in Heat-Enhanced Bioremediation
1h. Optimization of Classical Bioremediation Technologies
1i. Synthetic Biology Driven Remediation
1j. Biologically Mediated Abiotic Remediation

Bioremediation Implementation Practices

2a. In Situ Bioremediation Applications
2b. Ex Situ and Vadose Zone Biological Treatment
2c. Innovative and Efficient Amendment Delivery Strategies
2d. Biobarrier Installation and Management
2e. Bioremediation of Heavy Metals
2f. Challenges in Application of Bioremediation Tools

Application of Bioremediation to Complex Sites

3a. Bioremediation in Complex Geological Settings
3b. Bioremediation Case Studies
3c. Bioremediation of Deep Contamination
3d. Bioremediation of Sediments
3e. Bioremediation Approaches for the Innovative Management of Large or Dilute Plumes
3f. Impacts of Mixed Contaminants on Biodegradation

Bioremediation of PFAS

4a. Innovative Treatment Technologies for PFAS In Situ
4b. Innovative Treatment Technologies for PFAS Ex Situ
4c. Activated Carbon-Based PFAS Treatment Technologies
4d. PFAS Program Management in a Rapidly Changing Regulatory Environment
4e. PFAS Source and Forensic Considerations

Biodegradation of Emerging Contaminants

5a. 1,4-Dioxane Treatment Technologies
5b. Fate and Transport of 1,4-Dioxane
5c. Emerging Contaminants: Detection, Degradation, Fate and Transport
5d. Combined Treatment of Emerging Contaminants with CVOCs
5e. Addressing Emerging Contaminants in a Regulatory Framework

Plastics

6a. Microplastics and Nanoplastics: Biodegradation and Effects on the Environment
6b. Microplastics: Fate and Transport
6c. Microplastics: Ecological/Human Health and Risk Assessment
6d. Biodegradation and Potentional Upcycling of Plastics

Advanced Tools for Assessing Bioremediation

7a. Tools for Site Assessment and Bioremediation Monitoring
7b. Compound-Specific Isotope Analysis
7c. Chemical Fingerprinting and Forensics
7d. Mass Flux and Mass Discharge to Assess Biodegradation
7e. High-Resolution Site Characterization to Optimize Bioremediation
7f. HRSC and Conceptual Site Models
7g. On-Site Sensors for Microbial Processes
7h. Modeling and Monitoring Approaches to Improve Remedy Design and Implementation
7i. Improved Conceptional Site Models that Include Biodegradation Data
7j. Big Data and Integration of Molecular Tools in Site Assessment: Advanced Omics
7k. Machine Learning Approaches and Artificial Intelligence (AI)

Advances in Natural Attenuation

8a. Advances in Tools and Techniques for Assessing MNA
8b. Groundwater/Surface Water Interactions
8c. MNA for Achieving Site Remedial Goals
8d. Impacts of Matrix Diffusion on MNA
8e. MNA for Nondegrading Contaminants

Managing Petroleum Hydrocarbon-Impacted Sites

9a. Advances in Oxygenate Remediation
9b. Natural Source Zone Depletion
9c. Remediation and Management of Petroleum Hydrocarbon-Contaminated Sites
9d. Petroleum Hydrocarbon Metabolites
9e. Petroleum Remediation in Surface Water and Deep-Sea Environments
9f. LNAPL Bioremediation/NSZD Modeling

Innovative Biological Approaches to Waste Management

10a. Advances in Biological Wastewater Treatment Processes
10b. Treatment of Nitrate-Impacted Groundwater
10c. Bioremediation of Radionuclides in Radioactive Waste
10d. Bioremediation of Coal Combustion Residuals

Resilient and Sustainable Remediation

11a. Energy and Greenhouse Gas Footprint of Bioremediation
11b. Robotic Technologies for Environmental Site Assessment and Monitoring
11c. Adaptive Site Management Strategies to Mitigate Climate Change Impacts

Biotechnology for Sustainable Industry

12a. Biotechnology for Sustainable Mining
12b. Biological Carbon Sequestration
12c. Biocementation
12d. Critical Materials Recycling
12e. Bioconversion of Waste to Energy and Upcycling

Munitions Response

13a. Bioremediation of Munitions Constituents

Synthetic Biology

14a. Synthetic Biology in Agriculture
14b. Biosensors Development for Environmental Applications
14c. Genetically Modified Microbes in Complex Environmental Microbiomes

Microbial Ecology

15a. Synthetic Ecology
15b. Understanding the Biome
15c. Microbial Nutrient Cycling in Agriculture and Anthropogenic Waste Processing

Biomanufacturing

16a. Sustainable Biological Production of Inorganic Materials

Program Committee

Conference Chairs

Pamela Chang, PMP (Battelle)
Kent Sorenson, Ph.D., PE (Allonnia)

Technical Steering Committee

Hunter Anderson, Ph.D. (SERDP/ESTCP)
Ian Brookman (Environmental Earth Sciences International)
James J. Collins, Ph.D. (Massachusetts Institute of Technology)
Elizabeth Edwards, Ph.D., PE (Department of Chemical Engineering and Applied Chemistry, University of Toronto)
David L. Freedman, Ph.D. (Clemson University)
Paul Hatzinger, Ph.D. (Biotechnology Development and Applications Group, APTIM)
Kate Kucharzyk, Ph.D. (Battelle)
Frank Loeffler, Ph.D. (University of Tennessee, Knoxville)
Tamzen W. Macbeth, Ph.D., PE, BCEE (CDM Smith)
Dayal Saran, Ph.D. (Allonnia LLC)
Rick Wice, PG (GSI Family of Companies)

Abstract Preparation and Submittal

Abstracts are due December 4, 2024.

The program will be developed through a multilevel review by the Program Committee and the session chairs, beginning in December 2024. **To ensure full opportunity for placement in the program, abstracts should be submitted no later than December 4, 2024.** Because several hundred abstracts are expected, abstracts must be well-written, clearly and concisely outlining the material being proposed for presentation. Abstracts with a pronounced commercial slant will not be accepted. Abstracts must convey the information reviewers will need to assess the scope of the work and the data likely to be available at the time of the presentation, determine its relevance, compare it with other proposed presentations, and, if accepted for the program, assign it to an appropriate session.

Format, Content & Required Subheadings. Abstracts must be in English and cannot exceed one standard-size page. Format requirements and an example abstract are available on the **Abstract Specifications and Submittal** page.

NOTE: Abstracts must be organized under the following required subheadings—**Background/Objectives**, **Approach/ Activities**, and **Results/Lessons Learned**.

Submittal. Abstracts are to be submitted online only via the link on the **Abstract Specifications and Submittal page. Abstracts submitted by email will not be accepted or reviewed**. The submittal form will require complete contact information (postal mailing address, phone number, and email) for the corresponding/presenting author and for all co-authors.

Session placement suggestions and format preference (platform or poster) may be entered on the submittal form. However, final placement and format preference cannot be guaranteed. Final decisions on placement and format will be based on the best overall design of the Symposium program.

Notification of Acceptance/Placement. In late February 2025, the corresponding/presenting author of each abstract will be notified by email of the placement decision. If the abstract was accepted, this email will state the session and format (platform or poster) to which it was assigned and provide information on preparing the presentation.

Inquiries. Questions about abstract preparation and submittal should be addressed to **biosymp@battelle.org**.

No financial assistance is available to support registration or other costs of attending the Symposium. All presenting authors and session chairs are expected to register and pay the applicable technical-program registration fees.

This policy is necessary because registration fees are the major source of funding for the Symposium and a significant percentage of registrants will make presentations or chair sessions.

Student Participation

Students are encouraged to attend the Symposium and will find their participation valuable to their career development. In addition to the technical information gained by attending presentations and visiting exhibits, students will be able to meet and talk with environmental professionals representing a wide range of work experience and employers.

Reduced Registration Rate. The student rate is approximately half the university rate and provides full access to all technical sessions, exhibits and meals. Full-time students are eligible; documentation of current enrollment is required.

Student Poster Competition. Students with abstracts accepted for the technical program as poster presentations will be given the opportunity to participate in a poster competition. Posters will be judged by a panel of experts and the winner will receive a $500 prize at the closing session. Student registrants will be contacted by the Symposium Office closer to the event.

Career KickStarter. This event is intended for students and young professionals (less than 5 years in their field). It is a program designed to foster networking and mentorship within the environmental sector.

Participants will be matched with an experienced professional in a mentorship relationship, which both mentee and mentor are committed to sustaining for 1 year.

Mentors will provide guidance and constructive criticism to students, actively engage their professional network to strengthen the student's network, educate the student on the ins-and-outs of their own profession, have regular meetings to ensure the student's goals are being met, and most importantly, provide encouragement.

All participation is voluntary and there is no cost to attend, but pre-registration is required to match mentors and mentees. A target of 20-30 professionals is desired for successful implementation.

Reverse Job Fair. A reverse job fair will be held during the Tuesday and Wednesday evening poster receptions for students and young professionals interested in internship and job opportunities. Poster boards will be provided for participants to post their resume and any other pertinent information and participating Sponsors and Exhibitors will be encouraged to visit and discuss available opportunities at their companies.

Short Course Proposals

Proposals are due December 16, 2024.

Courses on topics within the general scope of the Symposium will be offered on Monday, June 23, the day before the technical program begins.

Proposals will be evaluated, and the point of contact will be notified of the results in late February 2025. Accepted courses will receive information about scheduling and how course registrations will be handled. Course descriptions will be posted on the website in March 2025.

See the **Short Course** page for details on proposal content and submittal instructions.

Learning Lab Proposals

Learning Lab Proposals are due December 16, 2024.

Generate exposure, demonstrate use, or solicit feedback for a technology, software, prototype, or tool in a 25-minute, hands-on demonstration, or user experience, in the Learning Lab located in the Exhibit Hall.

Proposals will be evaluated, and the point of contact will be notified of the results in late February 2025. If selected, there is no additional fee to participate. Selection decisions will be based on the best overall design of the Symposium program.

See the **Learning Lab** page for details on proposal content and submittal instructions.

Learning Lab Sponsor

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Exhibits

Exhibit space will open for general sale on February 12, 2025.

Organizations that provide assessment, remediation, and management services and products are invited to exhibit. Exhibitors will have the opportunity to present information to a focused audience of approximately 600-800 people who acquire and use environmental management products and services at industrial and government sites around the world. General breakfasts and beverage breaks will be located in the Exhibit Hall.

Booth Selection. Symposium sponsors will select their booths February 5, 2025, before general sales open. Learning Lab sponsors will receive second priority selection prior to general booth sales. Space will be assigned on a first-come, first-served basis, according to receipt of completed registration and payment.

Exhibit Fee and Payment. The fee for an 8-ft x 10-ft booth is $3,600 if payment is made by March 14, 2025, and $3,800 if paid later. The fee includes a 6-ft skirted table, two standard side chairs, and a wastebasket.

The **Sponsors and Exhibitors** page will contain additional details as they become available.

Inquiries. Please contact Danielle Johnikin (The Scientific Consulting Group, Inc.) at 301.670.4990, or send an email to djohnikin@scgcorp.com.

Registration

In mid-January 2025 a link to online registration will be available on the Registration page. Exhibit booth staff will be registered by their exhibit managers. Short course descriptions and registration information will be added to the website in late February 2025.

See the **Registration** page for a complete list of terms and conditions. Registration terms and conditions are subject to change without notice and are applicable to all levels of registration, including booth staff and Sponsor/Exhibitor discounted registrants. No one under 18 years of age will be admitted to any Symposium event unless registered as a student; valid student ID required at check-in.

	Paid by April 18, 2025	Paid after April 18, 2025
Industry	$1,050	$1,125
Govt/Univ*	$925	$1,025
Student**	$450	$500

** The university fee applies to full-time faculty and other teaching and research staff, including post-doctoral students.*

*** The student fee is reserved for full-time students through Ph.D. candidates whose fees will be paid by their universities or who will not be reimbursed for out-of-pocket payment. Documentation of current enrollment is required.*

The technical program registration fees cover admission to all platform and poster sessions, exhibits, group lunches (Tuesday, Wednesday, Thursday), evening receptions (Monday, Tuesday, Wednesday), daily continental breakfasts (Tuesday, Wednesday, Thursday), morning and afternoon beverage breaks (Tuesday, Wednesday, Thursday) and a closing reception (Thursday).

Payment. Payment is required to confirm registration and registration discounts apply only to payments received by the specified dates. Checks will be accepted for registrations made through April 18, 2025. Beginning April 19, 2025, payment may only be made by major credit card, Discover card is not accepted. Purchase orders will not be accepted at any time. Fees are not transferable to other Battelle Conferences. Symposium information meant for attendees only (e.g., links to mobile apps, abstracts, and registration lists) will be sent only to individuals who have paid in full.

Food & Beverage Sponsor

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Symposium Venue & Hotel

The Symposium will be held at the **Sheraton Boston Hotel** (39 Dalton Street, Boston, MA, 02199). A block of rooms has been set aside for attendees at the **Boston Marriott Copley Place** (110 Huntington Ave, Boston, MA 02116). Easy access from Marriott Copley Place is available to the Sheraton Boston through the Prudential Center Mall, accessible via skybridge from the hotel (second level). Information on room rates and reservation options will be available on the **Venue: Hotel and City** page in late February 2025.

The Sheraton Boston Hotel is located in the historic Back Bay neighborhood and directly connected to the Prudential Center and the Hynes Convention Center with scenic views of Back Bay and the Charles River.

The Back Bay centers around Copley Square, notably home to Trinity Church and the Boston Public Library. Cultural festivals and farmers' markets are also popular activities found in the area. Newbury Street is a popular destination where shoppers may visit art galleries, shop designer boutiques, and dine in unique sidewalk cafes. Beautiful brownstones line the neighborhood's residential streets, and visitors are encouraged to stroll Commonwealth Avenue to view monuments honoring many of Boston's greatest citizens.

Take your pick of walking tours from the Salem Witch Trials Walk, daily walking tours offered by the Lexington Visitor Center, or tours of Fenway Park.

See **meetboston.com** for more information.

Room Blocks. An attendee group rate has been negotiated with the Boston Marriott Copley Place. Rates are in effect for reservations made on or before May 30, 2025, unless rooms in the block sell out before that date.

The group rate at the Boston Marriott Copley Place is $335 per night (single/double) plus applicable taxes, fees, and assessments. Subject to availability of rooms at the time reservations are made, the group rate can be used for check-in as early as June 17, 2025, and check-out as late as June 30, 2025.

Inquiries

Bioremediation Symposium Office
biosymp@battelle.org

Sponsorship, exhibits, and registration:
Danielle Johnikin (The Scientific Consulting Group, Inc.)
djohnikin@scgcorp.com
phone: 301.670.4990 | fax: 301.670.3815

The Bioremediation Symposium has a group rate agreement with only the Boston Marriott Copley Place. We have not partnered with any travel agency or third-party for travel/hotel discounts. If you receive a call or an email offering assistance in making hotel reservations or changing existing reservations, we advise caution. The Symposium has no agreement with any organization to contact participants and offer reservation assistance, nor have we provided attendee contact information to anyone for that purpose.

Please use only the reservation links provided on the "Venue: Hotel and City" page on the Symposium website (available in February 2025) to make hotel reservations.


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It can be done