



TechDirect, November 1, 2020

Welcome to TechDirect! Since the October 1 message, TechDirect gained 79 new subscribers for a total of 39,700. If you feel the service is valuable, please share TechDirect with your colleagues. Anyone interested in subscribing may do so on CLU-IN at <https://clu-in.org/techdirect>. All previous issues of TechDirect are archived there. The TechDirect messages of the past can be searched by keyword or can be viewed as individual issues.



TechDirect's purpose is to identify new technical, policy and guidance resources related to the assessment and remediation of contaminated soil, sediments and groundwater.



Mention of non-EPA documents or presentations does not constitute a U.S. EPA endorsement of their contents, only an acknowledgment that they exist and may be relevant to the TechDirect audience.

> Funding Opportunities

Applicant Assistance Program for Developing Innovative Technology Ideas.

The National Institutes of Health has initiated an Applicant Assistance Program (AAP) for current/future entrepreneurs developing innovative technology ideas who would like assistance in developing a competitive small business grant application to NIH. One of the goals of the AAP is to increase participation in the Small Business Innovative Research (SBIR) program by businesses that are owned or controlled by individuals who are traditionally underrepresented in the biomedical sciences. Therefore, NIH is particularly interested in applications from socially/economically disadvantaged small businesses (SDB), women-owned small business (WOSB), and small businesses located in under-represented states. Technologies must be aligned with the with topic areas of NIH Institutes/Centers, including National Institute of Environmental Health Sciences SBIR programs which funds SBIR grants in a variety of areas including exposure assessment tools, assays for toxicity screening, education materials for environmental health science, and remediation/detection technologies for contaminated sites. Please visit the AAP website for upcoming deadlines and points of contact:

<https://sbir.cancer.gov/programseducation/aap>.

Request for Applications for Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER).

The National Institute of Environmental Health Sciences (NIEHS) released a Request for Applications for RFA-ES-18-007 Virtual Consortium for Translational/Transdisciplinary Environmental Research which promotes early-stage transdisciplinary collaborations and/or translational research efforts among fundamental (technology and mechanism oriented), clinical (patient-oriented) and population-based researchers in the environmental health field. The RFA calls for newly established collaborative teams to investigate potential linkages between human health and one or more environmental stressor(s). The ViCTER program is intended to support innovative high-risk,

high-reward cross-disciplinary and/or translational research projects that are more difficult to achieve in a typical NIH R01 application. Collaboration among investigators at different institutions through a virtual consortium arrangement are encouraged. Letters of intent are due November 1st and applications are due December 1st, 2020. Please contact Heather Henry (heather.henry@nih.gov) for more information.

> Upcoming Live Internet Seminars

ITRC Groundwater Statistics for Environmental Project Managers - November 5, 2020, 1:00PM-3:15PM EST (18:00-20:15 GMT). Statistical techniques may be used throughout the process of cleaning up contaminated groundwater. It is challenging for practitioners, who are not experts in statistics, to interpret and use statistical techniques. ITRC developed the Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) and this associated training specifically for environmental project managers who review or use statistical calculations for reports, who make recommendations or decisions based on statistics, or who need to demonstrate compliance for groundwater projects. The training class will encourage and support project managers and others who are not statisticians to: use the ITRC Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) to make better decisions for projects; apply key aspects of the statistical approach to groundwater data; and answer common questions on background, compliance, trend analysis, and monitoring optimization. ITRC's Technical and Regulatory Web-based Guidance on Groundwater Statistics and Monitoring Compliance (GSMC-1, 2013) and this associated training bring clarity to the planning, implementation, and communication of groundwater statistical methods and should lead to greater confidence and transparency in the use of groundwater statistics for site management. For more information and to register, see <http://www.itrcweb.org> or <https://clu-in.org/live>.

Superfund Research Program Progress in Research Webinar Parts 3 & 4 - November 9 & 19, 2020. The NIEHS Superfund Research Program (SRP) Progress in Research webinar series highlights promising research from SRP Centers awarded grants in 2020. In each of the four sessions, awardees will describe their research projects, accomplishments, and next steps. Part 1 featured awardees from the Harvard School of Public Health, University of North Carolina-Chapel Hill, and University of Arizona describing their research projects, accomplishments, and next steps. Part 2 featured awardees from the University of Kentucky, Oregon State University, and Baylor College of Medicine. Part 3 will feature awardees from Northeastern University and University of Alabama at Birmingham. Part 4 will feature awardees from North Carolina State University, University of Iowa, and Louisiana State University. Parts 1 and 2 are archived at <https://clu-in.org/live/archive/>. For more information and to register for Parts 3 and 4, see <https://clu-in.org/live>.

ITRC Geospatial Analysis for Optimization at Environmental Sites - November 17, 2020, 1:00PM-3:15PM EST (18:00-20:15 GMT). The purpose of ITRC's Geospatial Analysis for Optimization at Environmental Sites (GRO-1) guidance document and this associated training is to explain, educate, and train state regulators and other practitioners in understanding and using geospatial analyses to evaluate optimization opportunities at environmental sites. With the ITRC GRO-1 web-based guidance document and this associated training class, project managers will be able to: evaluate available data and site needs to determine if geospatial analyses are appropriate for a given site; for a project and specific life-cycle stage, identify optimization questions

where geospatial methods can contribute to better decision making; for a project and optimization question(s), select appropriate geospatial method(s) and software using the geospatial analysis work flow, tables and flow charts in the guidance document; with geospatial analyses results (note: some geospatial analyses may be performed by the project manager, but many geospatial analyses will be performed by technical experts), explain what the results mean and appropriately apply in decision making; and use the project manager's tool box, interactive flow charts for choosing geospatial methods and review checklist to use geospatial analyses confidently in decision making. For more information and to register, see <http://www.itrcweb.org> or <https://clu-in.org/live>.

FRTR at 30 Years: A Retrospective of Applied Innovative Technologies for Successful Site Remediation - November 18, 2020, 1:00PM-3:30PM EST (18:00-20:30 GMT).

The Fall 2020 Meeting of the Federal Remediation Technologies Roundtable (FRTR) will be held as a webinar session on Thursday, Nov. 18, 2020. As always, FRTR meetings are open to the public. FRTR's objectives for this meeting are to: provide a retrospective on 30 years of interagency collaboration, technology transfer and advocacy by FRTR to advance technology innovation for site remediation; and highlight current FRTR initiatives in technology transfer and applied innovative technology that are contributing to successful site remediation. For more information and to register, see <https://clu-in.org/live>.

SERDP ESTCP Abiotic Degradation of Chlorinated Solvents in Subsurface Environments - November 19, 2020, 12:00 PM EST (17:00 GMT).

Join SERDP and ESTCP on Thursday, November 19th for a webinar featuring DoD-funded research efforts to measure and enhance abiotic natural attenuation (ANA) under in situ conditions. First, Dr. Paul Tratnyek of the Oregon Health & Science University will present his work developing three core concepts for characterizing ANA and in situ chemical reduction more broadly. He will also summarize efforts to date to further the first two concepts. Second, Dr. Michelle Scherer of the University of Iowa will summarize efforts to evaluate factors controlling ANA of chlorinated solvents by magnetite and clay minerals. For more information and to register, see <https://serdp-estcp.org/Tools-and-Training/Webinar-Series/11-19-2020>.

ITRC Optimizing Injection Strategies and In situ Remediation Performance - December 1, 2020, 1:00PM-3:15PM EST (18:00-20:15 GMT).

ITRC developed the guidance: Optimizing Injection Strategies and In Situ Remediation Performance (OIS-ISRP-1) and this associated training course to identify challenges that may impede or limit remedy effectiveness and discuss the potential optimization strategies, and specific actions that can be pursued, to improve the performance of in situ remediation by: refining and evaluating remedial design site characterization data; selecting the correct amendment; choosing delivery methods for site-specific conditions; creating design specifications; conducting performance evaluations, and optimizing underperforming in situ remedies. The target audience for this guidance and training course is: environmental consultants, responsible parties, federal and state regulators, as well as community and tribal stakeholders. This training will support users in efficiently and confidently applying the guidance at their remediation sites. An optimization case study is shared to illustrate the use of the associated guidance document. For more information and to register, see <https://www.itrcweb.org> or <https://clu-in.org/live>.

> New Documents and Web Resources

ITRC Per- and Polyfluoroalkyl Substances (PFAS) and Risk Communication Fact Sheets. ITRC's PFAS Team has released 12 updated and new fact sheets - 11 PFAS

fact sheets and one risk communication toolkit fact sheet. The PFAS Team developed the short fact sheets with updated content to replace the older, longer fact sheets. For more detailed information, users of the fact sheets will also want to access the newly updated PFAS Technical and Regulatory Guidance Document. View or download at <https://pfas-1.itrcweb.org/fact-sheets/>.

ITRC Incremental Sampling Methodology (ISM-2) Update Document. The ISM-2 web-based document describes the principles and the approaches needed to ensure representative, reproducible, and defensible data during soil sampling. ISM involves planning, sample collection, and laboratory processing and analysis to provide a representative sample with results that more accurately reflect the mean concentration of the area of interest than discrete samples. The ISM document provides you the key principles regarding sampling and sampling error and how ISM reduces those errors to have more confidence in sampling results. View and use at <https://ism-2.itrcweb.org>.

Superfund Research Program (SRP) Research Brief 310: New Tool Monitors a Flame Retardant in Sediment. Researchers at the University of California, Davis (UC Davis) SRP Center developed a new, inexpensive tool to reliably detect small amounts of tetrabromobisphenol A (TBBPA) in environmental samples. TBBPA is a flame retardant commonly found in household dust, soil, water, sewage, sludge, and sediments. Traditional approaches to measure TBBPA in the environment are complex and expensive. Led by Bruce Hammock, Ph.D., the UC Davis SRP Center team developed a new detection technology as a simple and effective alternative. The approach builds on decades of research in the Hammock lab developing immunoassays to detect hazardous chemicals in the environment. Immunoassays use proteins called antibodies to bind to a chemical of interest and indicate the presence and concentration of the chemical. Labels on the antibodies are used to detect this binding. View more information at https://tools.niehs.nih.gov/srp/researchbriefs/view.cfm?Brief_ID=309

Technology Innovation News Survey Corner. The Technology Innovation News Survey contains market/commercialization information; reports on demonstrations, feasibility studies and research; and other news relevant to the hazardous waste community interested in technology development. Recent issues, complete archives, and subscription information is available at <https://clu-in.org/products/tins/>. The following resources were included in recent issues:

- Final Year 1 Semiannual Report for the Site Investigation for Monitored Natural Attenuation Pilot Study Site 45 Former Building 200 Wash Rack Disposal Pit Volume 1 of 3 NAS Jacksonville FL
- PFAS Degradation and Mass Removal Using Thermally-Enhanced Persulfate Oxidation Followed by Pump-and-Treat
- Evaluating the Long-Term Ecological Responses to Riparian Ecosystem Restoration at the Fort Benning, Georgia Military Installation

New State Coalition for Remediation of Drycleaners Website.

The State Coalition for Remediation of Drycleaners (SCRD) can now be found online on the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) website at <http://astswmo.org/state-coalition-for-remediation-of-drycleaners-scrd-publications/>. SCR D was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. The Coalition includes states with established drycleaner remediation programs (member states) and states without drycleaner-specific remediation programs but who are involved in the remediation of drycleaner sites under other authorities (represented states). Any state or agency that has an interest in drycleaner remediation is welcome to attend SCR D's quarterly calls. Interested parties may contact the current chair, Steve Teel, Washington State Department of Ecology (steve.teel@ecy.wa.gov).

EUGRIS Corner. New Documents on EUGRIS, the platform for European contaminated soil and water information. More than 7 resources, events, projects and news items were added to EUGRIS in October 2020. These can be viewed at <http://www.eugris.info/whatsnew.asp> . Then select the appropriate month and year for the updates in which you are interested.

> Conferences and Symposia

2020 SERDP and ESTCP Symposium, November 30-December 4, 2020. The Symposium will continue as a virtual conference in response to the COVID-19 pandemic. The SERDP and ESTCP Symposium is the nation's largest conference focusing on the Department of Defense's priority environmental and installation energy issues. The Symposium brings together environmental and energy researchers and technology developers with the defense end-user and regulatory communities to showcase cutting edge environmental technologies and ideas. The 2020 Symposium will offer 16 technical sessions, a number of short courses, more than 450 technical poster presentations, exhibitors from funding and partnering organizations, and a variety of networking opportunities for the more than 1,000 attendees. For more information and to register, see <https://web.cvent.com/event/a0cfb891-60fa-4233-8cc6-189bbf947195/summary>.

Brownfields 2021 will now be held in Oklahoma City, Oklahoma from September 27-30, 2021. The goal of the National Brownfields Training Conference is to provide a networking and learning environment for the brownfields community. We are working to ensure that the venue and travel arrangements will be as safe and healthy as possible so conference attendees can continue to experience the valuable in-person education and networking opportunities that have defined the brownfields conference since 1996. Due to the current Coronavirus (COVID-19) situation and having these considerations in mind, Brownfields 2021 will be rescheduled from its current April dates. Brownfields 2021 will now be held in Oklahoma City, Oklahoma from September 27-30, 2021. For more information, see <https://brownfields2021.org/2020/09/brownfields-2021-is-moving-to-september/>.

NOTE: For TechDirect, we prefer to concentrate mainly on new documents and the Internet live events. However, we do support an area on CLU-IN where announcement of conferences and courses can be regularly posted. We invite sponsors to input information on their events at <https://clu-in.org/courses> . Likewise, readers may visit this area for news of upcoming events that might be of interest. It allows users to search events by location, topic, time period, etc.

If you have any questions regarding TechDirect, contact Jean Balent at (703) 603-9924 or balent.jean@epa.gov. Remember, you may subscribe, unsubscribe or change your subscription address at <https://clu-in.org/techdirect> at any time night or day.

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