

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
ENVIRONMENT PROGRAMS					
Freshwater lead					
ILHE-30: Lead Mixture Effects (MEED)	2026	De Donno Novelli, L.; Schmitt, F.M.; Nys, C.; Viaene, K.; Du Laing, G.; De Schamphelaere, K.A.C. <i>Does the concentration addition model become a more conservative predictor of aquatic metal mixture toxicity to algae with an increasing number of metals in the mixture?</i> Environmental Science & Technology.	Journal paper	Q4 2026	In peer review
ILHE-30: Lead Mixture Effects (MEED)	2026	De Donno Novelli, L.; Nys, C.; Waeterschoot, H.; De Schamphelaere, K.A.C. <i>Mixture toxicity of cadmium, nickel and chromium to the alga Raphidocelis subcapitata.</i> Environmental Toxicology and Chemistry.	Journal paper	Q4 2026	In peer review
ILHE-30: Lead Mixture Effects (MEED)	2026	Schmitt et al. <i>Chronic Toxicity of Metal-Organic Mixtures to Daphnia magna: To What Extent Can Concentration Addition and Independent Action Predict Effects?</i> Environmental Toxicology and Chemistry.	Journal paper	Q4 2026	Awaiting submission after peer review
ILHE-2: Lead Ecotoxicity	2026	Peters A., Baken S., Cooper C., Middleton E., Chowdhury J., Gopalapillai Y. <i>Effects of metal mixtures on benthic macroinvertebrate</i>	Journal paper	https://doi.org/10.1093/etojnl/vgaf266	Available online (Open access)

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		<i>communities in the field</i> . Environmental Toxicology and Chemistry, 45 (1): 232 - 240.			
ILHE-30: Lead Mixture Effects (MEED)	2025	Schmitt, M., Viaene, K., Oorts, K., Nys, C., Vangheluwe, M., de Schampelaere, K.A.C. Prioritizing binary mixtures of metals with organic micropollutants in European freshwater: who drives the risk? , Environmental Toxicology and Chemistry, 44 (8): 2347–2360.	Journal Paper	https://doi.org/10.1093/etoinl/vgaf118	Available online
ILHE-2: Lead Ecotoxicity	2025	Merrington et al. Bioavailability and risk assessment of metals in freshwaters: is global regulatory implementation keeping pace with scientific developments? Integrated Environmental Assessment and Management, 21 (4): 870-881.	Journal paper	https://doi.org/10.1093/inteam/vjaf033	Available online
ILHE-1: Lead Biotic Ligand Model	2023	Nys, C., and De Schampelaere, K.A.C. 2023. Ecotoxicity of Lead (Pb) to a Phytoplankton Community: Effects of pH and Phosphorous Addition and Implications for Risk Assessment. Environmental Toxicology and Chemistry, 42 (12): 2684 - 2700.	Journal paper	https://doi.org/10.1002/etc.5739	Available online
ILHE-1: Lead Biotic Ligand Model	2023	Weighman K., Viaene, K., Koch, J., De Schampelaere, K.A.C. 2023. Using a dynamic energy budget model to investigate the physiological mode of action of lead (Pb) to	Journal paper	https://doi.org/10.1016/j.aquatox.2023.106617 .	Available online

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		Lymnaea stagnalis . Aquatic Toxicology, 261: 106617.			
ILHE-2: Lead Ecotoxicity	2023	Brix K.V., Baken, S., Poland, C.A., Blust, R., Pope, L. J., Tyler, C. R. 2023. Challenges and Recommendations in Assessing Potential Endocrine-Disrupting Properties of Metals in Aquatic Organisms . Environmental Toxicology and Chemistry, 00: 1-16.	Journal paper	https://doi.org/10.1002/etc.5741	Available online (Open access)
ILHE-2: Lead Ecotoxicity	2022	Adams et al., 2022. Application of Persistence, Bioaccumulation, and Toxicity for Metal Hazard Assessment is Questioned . Environmental Toxicology and Chemistry – Points of Reference, 41(11): 2629-2631.	Journal paper	https://doi.org/10.1002/etc.5459	Available online (Open access)
Lead REACH Consortium project managed by ILA	2021	Peters, A., Roylance, K., and Leverett, D. 2021. Variability in Ecotoxicity Testing of Lymnaea stagnalis with Trace Metals . Report prepared by WCA Environment Ltd., for ILA. May, 2021.	Topical Science Report for regulatory needs	Contact ILA	Availability is subject to permission from Lead REACH Consortium.
ILHE-28: MLR-based aquatic life criteria	2020	DeForest, D. K., Tear, L. M., and Brix, K. B. 2020. Comparison of Multiple Linear Regression Models and Biotic Ligand Models for Predicting Acute and Chronic Lead Toxicity to Freshwater Organisms . Report prepared by Windward Environmental	Lead bioavailability report submitted to USEPA under CRADA (Cooperative	Contact ILA	Availability is currently restricted.

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
		(Seattle, WA) and EcoTox (Miami, FL) for International Lead Association. March 10, 2020.	Research and Development Agreement)		
Lead REACH Consortium project managed by ILA	2020	Fox, M. 2020. Lead nitrate: Determination of effects on reproduction of Lymnaea stagnalis . Final Report prepared by Scymaris Ltd., Brixham, Devon, UK for International Lead Association, Durham, NC, USA.	Final Study Report	Contact ILA	Availability is subject to permission from Lead REACH Consortium.
ILHE-1: Lead Biotic Ligand Model	2018	Peters, A., Wilson, I., Merrington, G., and Chowdhury, M. J. 2018. Are Lead Exposures a Risk in European Fresh Waters? A Regulatory Assessment Accounting for Bioavailability . Bulletin of Environmental Contamination and Toxicology. 100 (1): 127 – 133.	Journal paper	https://doi.org/10.1007/s00128-017-2238-8	Available online
ILHE-1: Lead Biotic Ligand Model	2017	Peters, A., Wilson, I., and Merrington, G. 2017. An indicative compliance assessment for lead using European freshwater datasets . WCA Final Report submitted to International Lead Association in July 2017. WCA Project# P0607-17-18.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-14: Lead chronic criteria	2017	DeForest, D.K., Santore, R.C., Ryan, AC, Church, B., Chowdhury, M.J., and Brix, K.V. 2017. Development of biotic ligand model-based freshwater aquatic life criteria for lead following US Environmental Protection Agency guidelines . Environmental Toxicology and Chemistry. 36(11): 2965 – 2973.	Journal paper	DOI: 10.1002/etc.3861	Available online (free access)

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
ILHE-1: Lead Biotic Ligand Model	2016	Nys, C., Janssen, C., De Schampelaere, K.A.C. 2016. <i>Development and validation of a chronic Pb bioavailability model for the freshwater rotifer Brachionus calyciflorus.</i> Environmental Toxicology and Chemistry, 35 (2): 2977 – 2986.	Journal paper	DOI: 10.1002/etc.3480	Available online
ILHE-10: Dietary Effects of Lead	2016	Besser, J.M., Ivey, C.D., Brumbaugh, W.G., Ingersoll, C.G. 2016. <i>Effect of diet quality on the chronic toxicity of aqueous lead to the amphipod, Hyalella Azteca.</i> Environmental Toxicology and Chemistry, 35 (7): 1825 – 1834.	Journal paper	DOI: 10.1002/etc.3341	Available online
ILHE-1: Lead Biotic Ligand Model	2016	Van Sprang, P.A., Nys, C., Blust, R., Chowdhury, M.J. Gustafsson, J.P., Janssen, C.J., and De Schampelaere, K.A.C. 2016. <i>The derivation of effects threshold concentrations of lead for European freshwater ecosystems.</i> Environmental Toxicology and Chemistry, 35(5):1310-1320.	Journal paper	DOI: 10.1002/etc.3262	Available online
ILHE-10: Dietary Effects of Lead	2016	Alsop, D., Ng, T. Y.-T., Chowdhury, M.J., Wood, C.M. 2016. <i>Interactions of waterborne and dietborne Pb in rainbow trout, Oncorhynchus mykiss: Bioaccumulation, physiological responses, and chronic toxicity.</i> Aquatic Toxicology, 177 (2016):343–354	Journal paper	doi:10.1016/j.aquatox.2016.06.007	Available online
ILHE-2: Lead Ecotoxicity	2015	DeForest, D.K. and Meyer, J.S. 2015. <i>Critical Review: Toxicity of Dietborne Metals to Aquatic Organisms.</i> Critical Reviews in Environmental Science and Technology, 45:11, 1176-1241.	Journal paper	DOI: 10.1080/10643389.2014.955626	Available online
ILHE-1:	2014	De Schampelaere, K.A.C, Nys, C., Janssen, C.R. 2014. <i>Ecotoxicity of lead (Pb) to freshwater green</i>	Journal paper	doi:10.1016/j.aquatox.2014.07.008	Available online

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
Lead Biotic Ligand Model		<i>algae: Development and validation of a bioavailability model and inter-species sensitivity comparison.</i> Aquat Toxicol 155: 348-359.			
ILREACH-1: Lemna minor Validation	2014	Antunes, P.M.C., Kreager, N.J. 2014. Lead toxicity to Lemna minor predicted using a metal speciation chemistry approach. Environ Toxicol Chem 33: 2225-2233.	Journal paper	DOI: 10.1002/etc.2688	Available online
ILHE-1: Lead Biotic Ligand Model	2014	Nys, C., C.R. Janssen, E.M. Mager, A.J. Esbaugh, K.V. Brix, M. Grosell, W.A. Stubblefield, K. Holtze, K.A.C. De Schampelaere. 2014. Development and validation of a biotic ligand model for predicting chronic toxicity of lead to Ceriodaphnia dubia. Environ. Toxicol. Chem. 33(2): 394-403.	Journal paper	DOI: 10.1002/etc.2433	Available online
ILHE-1: Lead Biotic Ligand Model	2014	Blust R et al. 2014. Chemical analysis and speciation modeling of lead solubility under ecotoxicity testing relevant exposure scenarios. Department of Biology, University of Antwerp, Belgium. Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.34 p.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2013	Munley, K.M., K.V. Brix, J. Panlilio, D.K. Deforest, and M. Grosell. 2013. Growth inhibition in early life-stage tests predicts full life-cycle toxicity effects of lead in the freshwater pulmonate snail, Lymnaea stagnalis. Aquat. Toxicol. 128-129: 60-66	Journal paper	aquatox.2012.11.020	Available online
ILHE-1: Lead Biotic Ligand Model	2013	Nys C., and De Schampelaere K.A.C. 2013. Effect of Ca and pH on acute toxicity of Pb to Ceriodaphnia dubia. Report Prepared for	Final Study Report	Contact ILA	A pdf can be made available upon request

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
		International Lead Zinc Research Organization, Durham, NC, USA.			
ILHE-1: Lead Biotic Ligand Model	2013	Nys C., Janssen C.R., De Schamphelaere K.A.C. 2013. <i>A comparison of chronic Pb sensitivity between laboratory and field populations of Lymnaea stagnalis.</i> Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-10: Dietary Effects of Lead	2013	Nys C., Janssen C.R., De Schamphelaere K.A.C. 2013. <i>An investigation of the potential toxicity of dietary Pb to Ceriodaphnia dubia.</i> Report prepared for International Lead Zinc Research Organization (ILZRO), Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2012	Nys C., Janssen C.R., De Schamphelaere, K.A.C. 2012. <i>Estimation of the effects of Ca²⁺, H⁺ (pH) and DOC on chronic toxicity of Pb²⁺ to Brachionus calyciflorus: Development and validation of a Biotic Ligand Model (BLM).</i> Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2012	Esbaugh, A.J., Brix, K.V., Mager, E.M., De Schamphelaere, K.A.C., and Grosell, M. 2012. <i>Multi-linear regression analysis, preliminary biotic ligand modeling, and cross species comparison of the effects of water chemistry on chronic lead toxicity in invertebrates.</i> Comp. Biochem. Physiol. 155C: 423-431.	Journal paper	doi:10.1016/j.cbpc.2011.11.005	Available online

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ILHE-1: Lead Biotic Ligand Model	2012	Brix, K.V., Esbaugh, A.J., Munley, K.M., and Grosell, M. 2012. <i>Investigations into the mechanism of lead toxicity to the freshwater pulmonate snail, Lymnaea stagnalis</i> . <i>Aquat. Toxicol.</i> 106-107: 147-156.	Journal paper	aquatox.2011.11.007	Available online
ILHE-1: Lead Biotic Ligand Model	2012	AquaTox. 2012. <i>Report on the toxicity of lead to the freshwater invertebrate, Ceriodaphnia dubia</i> . Report Prepared by AquaTox for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2012	Nguyen L.T.H., Janssen C.R., De Schampelaere K.A.C. 2012. <i>Chronic toxicity of Pb to Chironomus riparius in five natural waters</i> . Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-10: Dietary Effects of Lead	2012	Wood, C.M., Alsop, D. 2012. <i>Evaluating the relative contributions of waterborne and dietary lead to toxicity in rainbow trout</i> . Report Prepared by McMaster University for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2011	Esbaugh, A.J., Brix, K.V., Mager, E.M., and Grosell, M. 2011. <i>Multi-linear regression models predict the effects of water chemistry on acute lead toxicity to Ceriodaphnia dubia and Pimephales promelas</i> . <i>Comp. Biochem. Physiol.</i> 154C: 137-145.	Journal paper	doi:10.1016/j.cbpc.2011.04.006	Available online
ILHE-1: Lead Biotic Ligand Model	2011	Mager, E.M. and Grosell, M. 2011. <i>Effects of acute and chronic waterborne lead exposure on the swimming performance and aerobic scope of</i>	Journal paper	doi:10.1016/j.cbpc.2011.03.002	Available online

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		<i>fathead minnows (Pimephales promelas)</i> . Comp. Biochem. Physiol. 154C: 7-13.			
ILHE-1: Lead Biotic Ligand Model	2011	Mager, E.M., Brix, K.V., Gerdes, R.M., Ryan, A.C., and Grosell, M. 2011. <i>Effects of water chemistry on the chronic toxicity of lead to the cladoceran, Ceriodaphnia dubia</i> . Ecotoxicol. Environ. Saf. 74: 238-243.	Journal paper	doi:10.1016/j.ecoenv.2010.11.005	Available online
ILHE-1: Lead Biotic Ligand Model	2011	Mager, E.M., Esbaugh, A.J., Brix, K.V., Ryan, A.C., and Grosell, M. 2011. <i>Influences of water chemistry on the acute toxicity of lead to Pimephales promelas and Ceriodaphnia dubia</i> . Comp. Biochem. Physiol. 153C: 82-90.	Journal paper	doi:10.1016/j.cbpc.2010.09.004	Available online
ILHE-2: Lead Ecotoxicity	2011	Al-Reasi, H.A., Wood, C.M., Smith, D.S. 2011. <i>Physicochemical and spectroscopic properties of natural organic matter (NOM) from various sources and implications for ameliorative effects on metal toxicity to aquatic biota</i> . Aquat. Toxicol. 103:179-190.	Journal paper	doi:10.1016/j.aquatox.2011.02.015	Available online
ILHE-1: Lead Biotic Ligand Model	2010	Mager, E.M., Brix, K.V., and Grosell, M. 2010. <i>Influence of bicarbonate and humic acid on effects of chronic waterborne lead exposure to fathead minnow (Pimephales promelas)</i> . Aquat. Toxicol. 96: 135-144	Journal paper	doi:10.1016/j.aquatox.2009.10.012	Available online
ILREACH-1: Lemna minor Validation	2010	Antunes P., Holtze K. 2010. <i>Final report: Testing the toxicity of Pb to Lemna minor in natural waters</i> . Study number: aquatox 162704736. Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
ILHE-1: Lead Biotic Ligand Model	2010	Parametrix. 2010. <i>Chronic toxicity of lead to the cladoceran, Ceriodaphnia dubia, under varying calcium and pH water quality conditions.</i> Study number: 598-3690-008. Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2010	Parametrix. 2010a. <i>Chronic toxicity of lead to the fathead minnow, Pimephales promelas, in natural waters.</i> Report no.: 598-3690-008. Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2009	Grosell, M. and Brix, K.V. 2009. <i>High net calcium uptake explains the hypersensitivity of the freshwater pulmonate snail, Lymnaea stagnalis, to chronic lead exposure.</i> Aquat. Toxicol. 91: 302-311.	Journal paper	doi:10.1016/j.aquatox.2008.10.012	Available online
ILHE-1: Lead Biotic Ligand Model	2008	Mager, E.M., Wintz, H., Vulpe, C.D., Brix, K.V., and Grosell, M. 2008. <i>Toxicogenomics of water chemistry influence on chronic lead toxicity to the fathead minnow (Pimephales promelas).</i> Aquat. Toxicol. 87(3): 200-209.	Journal paper	doi:10.1016/j.aquatox.2008.02.001	Available online
LDAI Project	2007	Parametrix. 2007. <i>Evaluation of Chronic Lead Toxicity to the Great Pond Snail, Lymnaea stagnalis.</i> Report no.: 598-3690-008. Report Prepared for Lead Development Association, London, UK.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILZRO BLM project	2006	Grosell, M., Gerdes, R., and Brix, K.V. 2006. <i>Influence of Ca, humic acid and pH on lead accumulation and toxicity in the fathead minnow</i>	Journal paper	doi:10.1016/j.cbpc.2006.04.014	Available online

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
		<i>during prolonged water-borne lead exposure.</i> Comp. Biochem. Physiol. 143C: 473-483.			
ILZRO BLM Project	2006	Grosell, M., Gerdes, R.M., and Brix, K.V. 2006. Chronic toxicity of lead to three freshwater invertebrates - Brachionus calyciflorus, Chironomus tentans, and Lymnaea stagnalis. Environ. Toxicol. Chem. 25(1): 97-104.	Journal paper	DOI: 10.1897/04-654R.1	Available online
Marine (saltwater) lead					
ILHE-8: Lead in Marine Water	2025	Smith, D.S. and McGeer, J.C. Impacts of Waterborne Pb to Americamysis bahia in a Chronic 30 day Flow-through Exposure: including analytical best practices and marine Pb solubility modelling.	Journal paper	Available upon publication	In internal review
ILHE-8: Lead in Marine Water	2018	Reynolds, E., Smith, S., Chowdhury, M.J., and Hoang, T. 2018. Chronic effects of lead exposure on topsmelt fish (Atherinops affinis): influence of salinity and organism age. Environ. Toxicol. Chem.	Journal Paper	https://doi.org/10.1002/etc.4241	Available online
ILHE-14: Lead chronic criteria	2017	Church, B.G., Van Sprang, P.A., Chowdhury, M.J., and DeForest, D.K. 2017. Updated species sensitivity distribution evaluations for acute and chronic lead toxicity to saltwater aquatic life. Environ. Toxicol. Chem. 36 (11): 2974 – 2980.	Journal paper	DOI: 10.1002/etc.3863	Available online (free access)
ILHE-8: Lead in Marine Water	2015	Hoang, T. 2015. Chronic Toxicity of Lead to Topsmelt (Atherinops affinis). Report Prepared by Loyola University for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	Published as a journal paper (Reynolds et al., 2018)

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
ILHE-8: Lead in Marine Water	2013	Nadella, S.R., Tellis, M., Diamond, R., Smith, D.S., Bianchini, A., Wood, C.M. 2013. Toxicity of lead and zinc to developing mussel and sea urchin embryos: Critical tissue residues and effects of dissolved organic matter and salinity. Comp. Biochem. Physiol. [C]. 158:72-83.	Journal paper	doi:10.1016/j.cbpc.2013.04.004	Available online
ILHE-8: Lead in Marine Water	2013	Tellis, M.S., Lauer, M.M., Nadella, S., Bianchini, A., Wood, C.M. 2013. Sublethal mechanisms of Pb and Zn toxicity to the purple sea urchin (Strongylocentrotus purpuratus) during early development. Aquat. Toxicol. 146:220-229.	Journal paper	doi:10.1016/j.aquatox.2013.11.004	Available online
ILHE-8: Lead in Marine Water	2013	Vukov, O., Nasir, R., Cunningham, J., Smith, D.S. and McGeer, J. 2013. Impacts of Waterborne Pb to Americamysis bahia in a Chronic 30 day Flow-through Exposure. Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-8: Lead in Marine Water	2013	Smith, D.S., Cunningham, J., and McGeer, J. 2013. Analytical Chemistry of Marine Aqueous Pb Determination: comparison of three methods. Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Project Report	Contact ILA	A pdf can be made available upon request
ILREACH-3: Marine SSD (U. Vigo)	2013	Beiras, R., González, S., Trigo, N., and Tato, T. 2013. Lead full life-cycle toxicity tests with the marine copepod Tisbe battagliai. Report Prepared by the University of Vigo for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
ILREACH-3: Marine SSD (U. Vigo)	2012	Beiras, R., Trigo, N., Durán, I., and Tato, T. 2012. Toxicity of Pb to early life stages of the bivalve <i>Mytilus galloprovincialis</i> and to the microalgae <i>Phaeodactylum tricorutum</i>. Report Prepared by the University of Vigo for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILREACH-3: Marine SSD (U. Vigo)	2012	Beiras, R., Trigo, N., and Durán, I. 2012a. Toxicity of Pb to the sea urchin embryo bioassay with <i>Paracentrotus lividus</i>. Report Prepared by the University of Vigo for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-1: Lead Biotic Ligand Model	2012	Holtz, K. 2012. Report on the toxicity of lead to the marine macroalgae, <i>Champia Parvula</i>. Report Prepared by AquaTox for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILHE-8: Lead in Marine Water	2011	Wood, C.M. 2011. Effects of salinity and DOC on Pb Toxicity to Marine Organisms. Report Prepared by McMaster University for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAI project	2010	Parametrix, 2010b. Toxicity of Lead to the Marine Flagellate, <i>Dunaliella tertiolecta</i>. Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAI project	2010	Parametrix, 2010c. Toxicity of Lead to the Mussel (<i>Mytilus galloprovincialis</i>). Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request

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LDAl project	2010	Parametrix, 2010d. <i>Life-Cycle Toxicity of Lead to the Marine Polychaete, Neanthes arenaceodentata</i> . Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAl project	2010	Parametrix, 2010e. <i>Toxicity of Lead to the Oyster (Crassostrea gigas)</i> . Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAl project	2010	Parametrix, 2010f. <i>Toxicity of Lead to the Sand Dollar (Dendraster excentricus)</i> . Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAl project	2010	Parametrix, 2010g. <i>Toxicity of Lead to the Purple Sea Urchin (Strongylocentrotus purpuratus)</i> . Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAl project	2010	Parametrix, 2010h. <i>Early Life-Stage Toxicity of Lead to the Sheepshead Minnow (Cyprinodon variegatus)</i> . Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAl project	2010	Parametrix, 2010i. <i>Toxicity of Lead to the Marine Diatom, Skeletonema costatum</i> . Report Prepared for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
Terrestrial (soil) lead					
Lead REACH Consortium	2022	De Brouwere, K. Verdonck, F., Geerts, L., Navis, S., Vanhamel, M. 2022. <i>Assessment of human</i>	Journal paper	https://doi.org/10.1038/s41370-021-00395-5	Available online

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project on Man via Environment		<i>exposure to environmental sources of lead arising from the lead battery manufacturing and recycling sector in Europe: demonstration of a tiered approach in a case study.</i> Journal of Exposure Science & Environmental Epidemiology, 32: 418 – 426.			
ILHE-19: Lead in soil	2021	Oorts, K., Smolders, E., Lanno, R, and Chowdhury, M.J. 2021. Bioavailability and Ecotoxicity of Lead in Soil: Implications for Setting Ecological Soil Quality Standards. Environmental Toxicology & Chemistry, 40 (7): 1948 – 1961.	Journal paper	DOI: 10.1002/etc.5051	Available online (Open access)
ILHE-27: Lead Soil EcoSSL	2019	Sample, B. E., Beyer, W. N. and Wentzel, R. 2019. Revisiting the Avian Eco-SSL for Lead: Recommendations for Revision. Integrated Environmental Assessment and Management (IEAM), 15: 739 – 749.	Journal paper	DOI: 10.1002/ieam.4157	Available online
ILA/REACH: Soil Ageing and Bioavailability	2019	Lanno, R. P., Oorts, K., Smolders, E., and Chowdhury, M.J. 2019. Effects of Soil Properties on the Toxicity and Bioaccumulation of Lead in Soil Invertebrates. Environmental Toxicology & Chemistry, 38 (7): 1486–1494.	Journal paper	DOI: 10.1002/etc.4433	Available online
ILA/REACH: Soil Ageing and Bioavailability	2015	Smolders, E., Oorts, K., Peeters, S., Lanno, R., Cheyns, K. 2015. Toxicity in lead salt spiked soils to plants, invertebrates and microbial processes: Unraveling effects of acidification, salt stress and ageing reactions. Science of the total environment, 536: 223 – 231.	Journal paper	doi:10.1016/j.scitotenv.2015.07.067	Available online

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ILA/REACH: Soil Ageing and Bioavailability	2012	Cheyns, K., Peeters, S., Delcourt, D., Smolders, E. 2012. <i>Lead phytotoxicity in soils and nutrient solutions is related to lead induced phosphorus deficiency.</i> Environmental pollution, 164:242-247.	Journal paper	Doi: 10.1016/j.envpol.2012.01 .027	Available online
ILA/REACH: Soil Ageing and Bioavailability	2012	Lanno, R. 2012. <i>Toxicity of lead salts to higher plants, invertebrates, and soil microbial processes: effects of soil type and ageing after soil amendment (Collembola and earthworms).</i> Report Prepared by Ohio State University for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
ILA/REACH: Soil Ageing and Bioavailability	2011	Smolders, E., Cheyns, K., Peeters, S., 2011. <i>Toxicity of lead salts to higher plants, invertebrates, and soil microbial processes: effects of soil type and ageing after soil amendment.</i> Report Prepared by Katholieke Universiteit Leuven for International Lead Zinc Research Organization, Durham, NC, USA.	Final Study Report	Contact ILA	A pdf can be made available upon request
LDAI Project (Lead Secondary Poisoning)	2009	Buekers, J., Steen Redeker, E., Smolders, E. 2009. <i>Lead toxicity to wildlife: Derivation of a critical blood concentration for wildlife monitoring based on literature data.</i> Science of the total environment, 407: 3431–3438.	Journal paper	doi:10.1016/j.scitotenv.2 009.01.044	Available online
LDAI Project (Lead Secondary Poisoning)	2009	Exponent, 2009. <i>Lead Secondary Poisoning Expert Panel Workshop.</i> Report Prepared by Exponent for International Lead Zinc Research Organization, Durham, NC, USA.	Final Workshop Report	Contact ILA	A pdf can be made available upon request
LDAI/Euromet aux Project (KUL)	2006	Lock K., Waegeneers N., Smolders E., Criel P., Van Eeckhout H., Janssen C.R. (2006). <i>Effect of leaching and aging on the bioavailability of lead to the</i>	Journal paper	DOI: 10.1897/05-612r.1	Available online

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
		<i>springtail Folsomia candida</i> . Environmental Toxicology and Chemistry 25:2006-2010.			
LDAI/Euromet aux Project (KUL)	2004	Waegeneers N., Vassilieva, E; Smolders E. (2004). Toxicity of Lead in the Terrestrial Environment . Final Report submitted to Lead Development Association International and International Lead Zinc Research Organization. November 2004.	Final Report	Contact ILA	A pdf can be made available upon request
HEALTH PROGRAMS					
ILHE-11: Study for Promotion of Health in Recycling Lead (SPHERL)	2015	Hara, A., Gu, Y.M., Petit, T., Liu, Y.P., Jacobs, L., Zhang, Z.Y., Yang, W.Y., Jin, Y., Thijs, L., Wei, F.F., Nawrot, T.S., and Staessen, J.A. 2015. Study for Promotion of Health in Recycling Lead - Rationale and design . Blood Press. 24(3):147-157.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2018	Yang, W-Y., Mujaj, B., Efremov, L., Zhang, Z-Y., Thijs, L., Wei, F.F., Huang, O-F., Luttun, A., Verhamme, P., Nawrot, T.S., Boggia, J., and Staessen, J.A. 2018. ECG Voltage in Relation to Peripheral and Central Ambulatory Blood Pressure . Am J Hypertens. 31(2):178-187.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2018	Yang, W-Y., Efremov, L., Mujaj, B., Zhang, Z-Y., Wei, F-F., Huang, Q-F., Thijs, L., Vanassche, T., Nawrot, T., and Staessen, J.A. 2018. Association of office and ambulatory blood pressure with blood lead in workers before occupational exposure . Journal of the American Society of Hypertension 12(1):14-24.	Journal paper	Available here	Open access

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
ILHE-11: SPHERL	2018	Yang, W-Y., Staessen, J.A. 2018. Blood pressure, hypertension and lead exposure. Environ Health. 2018 Feb 19;17(1):16	Letter to the editor	Available here	Open access
ILHE-11: SPHERL	2018	Yang, W-Y., Zhang, Z-Y., Mujaj, B., Thijs, L., and Staessen, J.A. 2018. Environmental exposure to lead: old myths never die. Lancet Public Health 3(8):e362.	Letter to the editor	Available here	Open access
ILHE-11: SPHERL	2018	Lanphear, B.P., Hornung, R.W., Auinger, P., and Allen, R. 2018. Environmental exposure to lead: old myths never die - Authors' reply. Lancet Public Health 3(8):e363.	Reply to letter to editor	Available here	Open access
ILHE-11: SPHERL	2019	Mujaj, B., Yang, W-Y., Zhang, Z-Y., Wei, F-F., Thijs, L., Verhamme, P., and Staessen, J.A. 2019. Renal function in relation to low-level environmental lead exposure. Nephrology Dialysis Transplantation 34(6):941-946.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2019	Yu, C-G., Wei, F-F., Yang, W-Y., Zhang, Z-Y., Muja, B., Thijs, L., Feng, Y-M., and Staessen, J.A. 2019. Heart rate variability and peripheral nerve conduction velocity in relation to blood lead in newly hired lead workers. Occup Environ Med. 76(6):382-388.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2019	Yu, C-G., Yang, W-Y., Saenen, N., Wei, F-F., Zhang, Z-Y., Mujaj, B., Thijs, L., Feng, Y-M., Nawrot, T.S., and Staessen, J.A. 2019. Neurocognitive function in relation to blood lead among young men prior to	Journal paper	Available here	Open access

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		<i>chronic occupational exposure.</i> Scand J Work Environ Health 45(3):298-307.			
ILHE-11: SPHERL	2019	Yu, C-G., Wei, F-F., Yang, W-Y., Zhang, Z-Y., Mujaj, B., Thijs, L., Feng, Y-M., Boggia, J., Nawrot, T.S., Struijker-Boudier, H.A.J., and Staessen, J.A. 2019. Central hemodynamics in relation to blood lead in young men prior to chronic occupational exposure. Blood Press. 28(5):279-290.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2020	Yu, Y-L., Yang, W-Y., Thijs, L., Melgarejo, J.D., Yu, C-G., Wei, D.M., Wei, F-F., Nawrot, T.S., Zhang, Z-Y., and Staessen, J.A. 2020. Two-Year Responses of Office and Ambulatory Blood Pressure to First Occupational Lead Exposure. Hypertension. 76(4):1299-1307.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2020	Yu, Y-L., Thijs, L., Yu, C-G., Wen-Yi Yang, W-Y., Melgarejo, J.D., Wei, D-M., Wei, F-F., Nawrot, T.S., Verhamme, P., Roels, H.A., Staessen, J.A., and Zhang, Z-Y. Two-Year Responses of Heart Rate and Heart Rate Variability to First Occupational Lead Exposure. Hypertension. 2021 May 5;77(5):1775-1786	Journal paper	Available here	Open access
ILHE-11: SPHERL	2021	Yu, Y-L., Thijs, L., Saenen, N., Melgarejo, J.D., Wei, D-M., Yang, W-Y., Yu, C-G., Roels, H.A., Nawrot, T.S., Maestre, G.E., and Staessen, J.A. Two-year neurocognitive responses to first occupational	Journal paper	Available here	Open access

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		<i>lead exposure</i> . Scand J Work Environ Health. 2021 Apr 1;47(3):233-243.			
ILHE-11: SPHERL	2022	Yu, Y-L., Thijs, L., Yu, C-G., Melgarejo, J.D., Wei, D-M., Wei, F-F., Yang, W-Y., Roels, H.A., Nawrot, T.S., Zhang, Z-Y., and Staessen, J.A. Two-Year Responses of Renal Function to First Occupational Lead Exposure . Kidney Int Rep. 2022 Mar 26;7(6):1198-1209.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2023	Yu Y.L., Yang W.Y., Hara A., Asayama K., Roels H.A., Nawrot T.S., Staessen J.A.. Public and occupational health risks related to lead exposure updated according to present-day blood lead levels . Hypertens Res. 2023 Feb;46(2):395-407.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2023	Yu Y.L., An D.W., Yang W.Y., Verhamme P., Allegaert K., Nawrot T.S., Staessen JA. Blood Pressure and Renal Function Responses in Workers Exposed to Lead for up to Six Years . J Clin Hyperten, 2023 Dec; 25 (12): 1086 – 1095.	Journal paper	Available here	Open access
ILHE-11: SPHERL	2023	Yu Y.L., An D.W., Chori B.S., Nawrot T.S., Staessen J.A. Blood pressure and hypertension in relation to lead exposure updated according to present-day blood lead levels . Kardiol Pol. 2023;81(7-8):675-683.	Journal paper	Available here	Open access
ILHE-24: Evaluation of the Air	2017	Petito Boyce. C., Sax, S.N., and Cohen, J.M. 2017 Particle size distributions of lead measured in battery manufacturing and secondary smelter	Journal paper	Available here	Available online

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
Lead/Blood Lead Relationship in Workers		<i>facilities and implications in setting workplace lead exposure limits.</i> J Occup Environ Hyg. 14(8):594-608.			
ILHE-24: Evaluation of the Air Lead/Blood Lead Relationship in Workers	2025	Li W., Chien J., and Cohen, J.M. <i>The relationship between air lead and blood lead in a modern US lead-acid battery facility: a longitudinal study.</i> J Occup Health. 67(1):uia073.	Journal paper	Available here	Open access
ILHE-26: Neurological Effects of Lead in Adults and children	2013	Crump, K.S., Van Landingham, C., Bowers, T.S., Cahoy, D., and Chandalia, J.K. 2013. <i>A statistical reevaluation of the data used in the Lanphear et al. (2005) pooled-analysis that related low levels of blood lead to intellectual deficits in children.</i> Crit Rev Toxicol. 43(9):785-799	Journal paper	Available here	Available online
ILHE-26: Neurological Effects of Lead in Adults and children	2020	Staessen, J.A., Thijs, L., Yang, W-Y., Yu, C-G., Wei, F-F., Roels, H.A., Nawrot, T.S., and Zhang, Z-Y. 2020. <i>Interpretation of Population Health Metrics: Environmental Lead Exposure as Exemplary Case.</i> Hypertension 75(3):603-614.	Journal paper	Available here	Open access
ILHE-26: Neurological Effects of Lead in Adults and children	2020	Cox, L.A., Jr. 2020. <i>Implications of nonlinearity, confounding, and interactions for estimating exposure concentration-response functions in</i>	Journal paper	Available here	Open access

Program # and title	Year	Program Publication Title and Author	Publication type	Availability	Remarks
		<i>quantitative risk analysis</i> . Environ Res. 187:109638.			
ILHE-26: Neurological Effects of Lead in Adults and children	2020	Cox, L.A., Jr. 2020. <i>Using Bayesian networks to clarify interpretation of exposure-response regression coefficients: blood lead-mortality association as an example</i> . Crit Rev Toxicol. 2020 Aug;50(7):539-550.	Journal paper	Available here	Available online
ILHE-26: Neurological Effects of Lead in Adults and children	2020	Van Landingham, C., Fuller, W.G., and Schoof, R.A. <i>The effect of confounding variables in studies of lead exposure and IQ</i> . Crit Rev Toxicol. 2020 Oct;50(9):815-825.	Journal paper	Available here	Open access
ILHE-27b:	TBD	Ongoing health research study to update research and literature pertaining to inadvertent ingestion exposure to lead in the workplace. To assist member companies in understanding and controlling inadvertent lead ingestion.	Report and Journal paper	TBD	Ongoing study
ILHE-31: USEPA Soil Cleanup Review	2024	Technical comments on the January 2024 “Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities” submitted on behalf of ILA, ABR, BCI	Comment to federal register	Available here	Open access