

## Catherine Mouneyrac

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### WORK AND RESEARCH EXPERIENCE

<b>2014, September -</b> Professor (Pr1) in Aquatic Ecotoxicology	<b>Université Catholique de l'Ouest (France)</b> Faculty of Sciences
<b>2017</b> Présidente CE Tox-Ecotox	<b>National Research Agency (ANR, France)</b> <b>National Research Agency (ANR, France)</b>
<b>2014, September –</b> Scientific Delegate	
<b>2010, September- 2014, August</b> Project Manager	<b>National Research Agency (ANR, France)</b>
<b>2005, September-2010, August</b> Associate Professor	<b>Université du Québec à Rimouski (Québec)</b> ISMER
<b>2002, September – 2014, August</b> Professor (Pr2) in Aquatic Ecotoxicology	<b>Université Catholique de l'Ouest (France)</b> Institute of Biology and Applied Ecology
<b>1993, September-2002, August</b> Assistant Professor	<b>Université Catholique de l'Ouest (France)</b> Institute of Biology and Applied Ecology

### EDUCATION

<b>2002</b>	DSc in Aquatic Ecotoxicology, University of Nantes
<b>1989-1993</b>	PhD in Animal Physiology, University of Lyon I

### PROFESSIONAL STATUS

<b>2014, September-</b>	Dean of the Faculty of Sciences Head of the CONTAMAR (Emerging Contaminants) Research team (University of Nantes)
<b>2010, September-</b>	Project Manager- Scientific delegate, Environmental and Biological Resources Department (ANR, France)
<b>2002, September – 2014, August</b>	Head of the Institute of Biology and Applied Ecology (Université Catholique de l'Ouest) Head of the Emerging Contaminants Research team (University of Nantes)
<b>1993, September-2002, August</b>	Course Director of B.Sc and M.Sc in Environmental Sciences

## ACADEMIC PROFILE and PROFESSIONAL ROLES

The general field research of C. Mouneyrac concerns the response of aquatic organisms to natural and chemical stress (trace elements in particular metals, persistent organic pollutants, endocrine disruptors, nanomaterials). The chosen models are annelids, mollusks, crustaceans, sponges. At the interface of fundamental and applied research, she aims to fulfill the gap between ecological (bio indicators) and ecotoxicological (biomarkers) approaches, the final objective being to help environmental diagnosis according to requirements of the EU Directive on water. More precisely, she studies biomarkers allowing extrapolating from suborganismal responses (biomarkers, energy reserves, reproduction processes) and organismal (biological indices, behaviour biomarkers) to effects occurring at higher levels of biological organization.

C. Mouneyrac has participated to the conception and realization of numerous national (French National Program in Marine Ecotoxicology, French National Program in Ecotoxicology: PNETOX, French National Program on Endocrine Disruptors: PNRPE, with the French Ministry of the Ecology and Sustainable Development, ANR) and international (PICS-CNRS, AUF, French-Moroccan Program, FP7) scientific projects. She has been the head of a French-Canadian-Moroccan project in the framework of the French-speaking Agency for University. She is currently involved in a national research program (Agence Nationale de la Recherche) entitled "NanoSalt: 2013-2017; Nanomaterials across a salinity gradient: exposure and ecotoxicological effects within a life cycle perspective (production, usage, end of life) and two European Research Programs (Seventh Framework Programme- NANoREG: A common European Approach to the regulatory testing of nanomaterials (2013-2016) and H2020 NANoREG II: Development and implementation of Grouping and Safe-by-Design approaches within regulatory frameworks (2015-2018). She has been involved as the Workpackage leader: "In vivo ecotoxicology" in the European Research Programme (2008-2012): "NanoReTox: The reactivity and toxicity of engineered nanoparticles: risks to the environment and human health" (P.I: Eva Valsami-Jones).

She has supervised post-graduate student's works (Post-Doc, PhDs, Masters). She is referee for numerous international journals (Aquatic Toxicology, Ecotoxicology and Environmental Safety, Environmental Sciences and Technology, Nanotoxicology, STOTEN...), and research proposals (ANR, the French Agency of Environmental Security, Danish Research Council, Research Grants Council Hong Kong...). She is Chairman of SETAC sessions, for example "Fate and effects of nanoparticles in environmental realistic conditions" in Basel 2014. She has created and is responsible of the French working group on « pollution mixtures » (ECRIN/CNRS). She is member of different research networks in environmental impacts of nanoparticles (GDRi ICEINT: international Consortium for the Environmental Implication of Nanotechnology, European COST Action ES1205: High ionic strength media/systems: behaviour, fate and ecotoxicity, European NanoSafety Cluster). She is part of the Expert committee on the assessment of the risks related to physical agents, new technologies and development areas and the working group "Assessment of the risks associated with nanomaterials" at the French Agency for Food, Environmental and Occupational Health & Safety (Anses). She is part of the panel member expert QNano (QualityNano Research Infrastructure). She has been selected (2010) as a decision-makers to follow the national study course of the Institut des Hautes Etudes pour la Science et la Technologie (<http://www.ihest.fr>) and she received in 2012 "Les palmes Académiques from the Ministries of Higher Education and Research and Education in France.

## Papers in international peer reviewed journals

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Revel M., Châtel A., **Mouneyrac C.** Micro(nano)plastics: a threat to human health? Current Opinion in Environmental Science & Health (invited) in press

Revel M., Châtel A., **Mouneyrac C.** 2017. Omics tools: new challenges in aquatic nanotoxicology? *Aquat. Toxicol.* 193: 72-85.

Auffan, M., Tella M. Liu W., Pariat A., Cabié M., Borschneck D., Angeletti B., Landrot G., **Mouneyrac C.**, Giambérini L., Rose J. 2017. Structural and physical–chemical behavior of a CeO<sub>2</sub> nanoparticle based diesel additive during combustion and environmental release. *Environmental Science: Nano*, 10.1039/c7en00494j

Barrick A., Châtel A., Bruneau M., **Mouneyrac C.** 2017. The Role of High Throughput Screening in Ecotoxicology and Engineered Nanomaterials. *Environmental Toxicology and Chemistry*, 9999: 1-11.

Châtel A., **Mouneyrac C.** 2017. Signalling pathways involved in metal-based nanomaterial toxicity towards aquatic organisms. *Comparative Biochemistry and Physiology, Part C*, 196: 61–70.

Phuong N.N., Zalouk-Vergnoux A., Kamari A., **Mouneyrac C.**, Amiard F., Poirier L., Lagarde F. 2017. Microplastics in blue mussels (*Mytilus edulis*) of the French Atlantic coast: protocol set-up and preliminary data on the contamination. *Environ. Sci. Pollut. Res.* DOI 10.1007/s11356-017-8862-3

**Mouneyrac C.**, Lagarde F., Châtel A., Khan F.R., Syberg K., Palmqvist A. 2017. The Role of Laboratory Experiments in the Validation of Field Data. *Comprehensive Analytical Chemistry*, (invited) 75: 241-273.

Bertrand C., Devin S., **Mouneyrac C.**, Giambérini L. 2017. Eco-physiological responses to salinity changes across the freshwater-marine continuum on two euryhaline bivalves: *Corbicula fluminea* and *Scrobicularia plana*. *Ecological indicators*, 74: 334-342.

Devin S., Buffet PE., Châtel A., Perrein-Ettajani H., Valsami-Jones E., **Mouneyrac C.** 2017. The Integrated Biomarker Response: a suitable tool to evaluate toxicity of metal-based nanoparticles. *Nanotoxicology*, 11:1-6.

Châtel A., Lièvre C., Goupil A., Bruneau M., **Mouneyrac C.** 2017. Spermatozoa: a relevant biological target for genotoxic assessment of contaminants in the estuarine bivalve *Scrobicularia plana*. *Marine Pollution Bulletin* 116(1-2): 488-490.

Couderc M., Gandolfi F., Zalouk-Vergnoux A., Beyeler N., Malleret L., Ambidina I., Kamari A., Blanchet-Letrouvé I., **Mouneyrac C.**, Hamers T., Poirier L. 2016. Levels and distributions of organic pollutants in subtidal sediments from the Loire estuary: Are there any relationships with TTR-binding activity? *Journal of Sea Research* 118: 59-68.

Bertrand L. Monferrán M. V. **Mouneyrac C.**, Bonanse R.I., Valeria A.M. 2016. Sensitive biomarker response of shrimp *Palaemonetes argentinus* exposed to chlorpyrifos at environmental concentrations: Role of alpha-tocopherol and metallothioneins. *Aquatic Toxicology*, 179: 72–81.

Givaudan N., Suchail S., Rault M., **Mouneyrac C.**, Capowiez Y. 2016. Impact of apple orchard management strategies on earthworm (*Allolobophora chlorotica*) energy reserves. *Soil Biology & Biochemistry*, 100: 252-254.

Barrick A., Châtel A., Marion J.-M., Perrein-Ettajani H., Bruneau M., **Mouneyrac C.** 2016. A novel methodology for the determination of biomarker baseline levels in the marine polychaete *Hediste diversicolor*. *Marine Pollution Bulletin*, 108: 275-280.

Bertrand C., Zalouk-Vergnoux A., Giambérini L., Poirier L., Devin S., Labille J., Perrein-Ettajani H., Pagnout C., Châtel A.; Lévard C., Auffan M., **Mouneyrac C.** 2016. The influence of salinity on the fate and behavior of silver standardized nanomaterial and toxicity effects in the estuarine bivalve *Scrobicularia plana*. *Environmental Toxicology and Chemistry*, 35: 2550–2561.

Couderc M., Marchand J., Zalouk-Vergnoux A., Kamari A., Moreau B., Blanchet-Letrouvé I., Le Bizec B., **Mouneyrac C.**, Poirier L. 2016. Thyroid endocrine status of wild European eels (*Anguilla anguilla*) in the Loire

estuary (France). Relationships with organic contaminant body burdens. *Science of the Total Environment*, 550: 391–405.

Phuong N.N.; Zalouk-Vergnoux A.; Poirier L.; Kamari A.; Châtel A.; **Mouneyrac C.**; Fabienne Lagarde F. **2016**. Is there any consistency between microplastics found in the field and those used in laboratory experiments? *Environmental Pollution*, 211: 111-123.

Buffet P-E, Zalouk-Vergnoux A., Poirier L., Lopes C., Risso de Faverney C., Guibbolini M., Gilliland D., Perrein-Ettajani H., Valsami-Jones E., **Mouneyrac C.** **2015**. Cadmium sulfide quantum dots induce oxidative-stress and behavioural impairments in the marine clam *Scrobicularia plana*. *Environmental Toxicology and Chemistry*, 34 (7), 1659-1664.

Couderc M., Poirier L., Zalouk-Vergnoux A., Kamari A., Blanchet-Letrouvé I., Marchand P., Vénisseau A., Veyrand B., **Mouneyrac C.**, Le Bizec B., **2015**. Occurrence of POPs and other persistent organic contaminants in the European eels (*Anguilla anguilla*) from the Loire estuary, France. *Science of the Total Environment*. 505, 199–215.

Bertrand L., Monferrán M.V., Métais I., **Mouneyrac C.**, Amé M.V., **2015**. MTs in *Palaemonetes argentinus* as potential biomarkers of zinc contamination in freshwaters. *Ecological Indicators*, 48, 533–541.

**Mouneyrac, C.**, Buffet, P-E., Poirier, L., Zalouk-Vergnoux A., Guibbolini M., Risso-de Faverney C., Gilliland D., Berhanu D., Dybowska A., Châtel A., Perrein-Ettajani H., Pan JF., Thomas-Guyon H., Reip P., Valsami-Jones E., **2014**. Fate and effects of metal-based nanoparticles in two marine invertebrates, the bivalve mollusc *Scrobicularia plana* and the annelid polychaete *Hediste diversicolor*. *Environ. Sci. Pollut. Res.* 21(13), 7899-912.

Buffet P-E, Zalouk-Vergnoux A., Châtel A., Berthet B., Métais I., Perrein-Ettajani H., Poirier L., Luna-Acosta A., Thomas-Guyon H., Risso de Faverney C., Guibbolini M., Gilliland D., Valsami-Jones E., **Mouneyrac C.** **2014**. A marine mesocosm study on the environmental fate of silver nanoparticles and toxicity effects on two endobenthic species: The ragworm *Hediste diversicolor* and the bivalve mollusc *Scrobicularia plana*. *Science of The Total Environment*, 470–471, 1151-1159.

Blanchet-Letrouvé I., Zalouk-Vergnoux A., Vénisseau A., Couderc M., Le Bizec B., Elie P., C. Herrenknecht C., **Mouneyrac C.**, Poirier C. **2014**. Dioxin-like, non-dioxin like PCB and PCDD/F contamination in European eel (*Anguilla anguilla*) from the Loire estuarine continuum: Spatial and biological variabilities. *Science of The Total Environment*, 472, 562-571.

Buffet P-E, Poirier L., Zalouk-Vergnoux A., Lopes C., Amiard JC., Gaudin P., Risso de Faverney C., Guibbolini M., Gilliland D., Perrein-Ettajani H., Valsami-Jones E., **Mouneyrac C.** **2014**. Biochemical and behavioural responses of the marine polychaete *Hediste diversicolor* to cadmium sulfide quantum dots (CdS QDs): Waterborne and dietary exposure. *Chemosphere*, 100, 63-70.

Couderc M., Gandar A., Kamari A., Allain Y., Zalouk-Vergnoux A., Herrenknecht C., Le Bizec B., **Mouneyrac C.**, Poirier L., **2014**. Neurodevelopmental and behavioral effects of nonylphenol exposure during gestational and breastfeeding period on F1 rats. *NeuroToxicology* 44, 237–249.

Buffet, P-E.; Pan, J-F.; Poirier, L.; Amiard-Triquet, C.; Amiard J-C., Gaudin, P.; Risso- de Faverney, C.; Guibbolini, M., Gilliland, M.; Valsami-Jones, E.; **Mouneyrac, C.** **2013**. Biochemical and behavioural responses of the endobenthic bivalve *Scrobicularia plana* to silver nanoparticles in seawater and microalgal food. *Ecotoxicology and Environmental Safety*. 89(1), 117-124.

Buffet P-E, Richard M., Caupos F., Vergnoux A., Perrein-Ettajani H., Luna-Acosta A., Akcha F., Amiard J-C., Amiard-Triquet C., Guibbolini M., Risso de Faverney C., Thomas-Guyon H., Reip P., Dybowska A., Berhanu D., Valsami-Jones E., **Mouneyrac C.** **2013**. A mesocosm study of fate and effects of CuO nanoparticles on endobenthic species (*Scrobicularia plana*, *Hediste diversicolor*). *Environmental Science and Technology*. 47(3), 1620-1628.

Joubert Y., Pan J-F, Buffet P-E., Pilet P.; Gilliland D., Valsami-Jones E., **Mouneyrac C.**; Amiard-Triquet C. **2013**. Subcellular localization of gold nanoparticles in the estuarine bivalve *Scrobicularia plana* after exposure through the water. *Gold Bulletin* 46:47–56.

- Fossi Tankoua O., Buffet P-E., Amiard J.C., Berthet B., **Mouneyrac C.**, Amiard-Triquet C. **2013**. Integrated assessment of estuarine sediment quality based on a multi-biomarker approach in the bivalve *Scrobicularia plana*. *Ecotoxicology and Environmental Safety*, 88, 117-125.
- Sacchi A., **Mouneyrac C.**, Bolognesi C., Sciutto A., Roggieri P., Fusi M., Beone G-M., Capri E. **2013**. Biomonitoring study of an estuarine coastal ecosystem, the Sacca di Goro lagoon, using *Ruditapes philippinarum* (*Mollusca, Bivalvia*). *Environmental Pollution*, 177, 82-89.
- Tlili S., Minguez L. Giamberini L., Geffard A. Boussetta H., **Mouneyrac C.** **2013**. Assessment of the health status of *Donax trunculus* from the Gulf of Tunis using integrative biomarker indices. *Ecological Indicators*, 32, 285–293.
- Blanchet-Letrouvé I, Lafont A-G, Poirier L, Baloche S, Zalouk-Vergnoux A, Dufour S, **Mouneyrac C.** **2013**. Vg mRNA induction in an endangered fish species (*Anguilla anguilla*) from the Loire Estuary (France). *Ecotox. Environ. Safety*, 97, 103-113.
- Fossi Tankoua O., Buffet P.E., Amiard J.C., Amiard-Triquet C., Méléder V., Gillet P., **Mouneyrac C.**, Berthet B. **2012**. Intersite variations of a battery of biomarkers at different levels of biological organisation in the estuarine endobenthic worm *Nereis diversicolor* (Polychaeta, Nereididae). *Aquatic Toxicology* 114– 115, 96– 103.
- Gillet P., Mouloud M., **Mouneyrac C.**, Simo P., Gilbert F. **2012**. Bioturbation activity of *Nereis diversicolor* (O.F. Müller, 1776), (Polychaeta, Nereididae) from the Loire estuary, France. *Open Marine Biology Journal*, 6: 53-56.
- Khati W., **Mouneyrac C.**, Banaoui A. **2012**. Metallothioneins in aquatic invertebrates: Their role in metal detoxification and their use in biomonitoring. *Energy Procedia*, 18: 784 -794.
- Palais F., Dedourge-Geffard O.; Beaudon A.; Pain-Devin S.; Trapp J.; Geffard O.; Noury; P. Gourlay-Francé C.; Uher E.; **Mouneyrac C.**; Biagiante-Risbourg S.; Geffard A. **2012**. One-year monitoring of core biomarker and digestive enzyme responses in transplanted zebra mussels (*Dreissena polymorpha*). *Ecotoxicology*, 21 (3); 888-905.
- Fossi Tankoua O, Amiard-Triquet A., Denis F., Minier C., **Mouneyrac C.**, Berthet B. **2012**. Physiological status and intersex in the endobenthic bivalve *Scrobicularia plana* from thirteen estuaries in northwest France. *Environmental Pollution*, 167 ; 70-77.
- Pan J-F, Buffet P-E, Poirier L., Amiard-Triquet C., Gilliland D., Guibbolini M., Risso de Faverney C., Roméo M., Valsami-Jones E., **Mouneyrac C.** **2012**. Size Dependent Bioaccumulation and Ecotoxicity of Gold Nanoparticles in an Endobenthic Invertebrate: the Tellinid Clam *Scrobicularia plana*. *Environmental Pollution*, 168, 37-43.
- Métais I., Mengue Ekouma E., Ngpan R., Planes S., **Mouneyrac C.** **2012**. Oxidative stress responses and biological indices in the giant clam *Tridacna maxima* and the reef fish *Epinephelus merra* from the French Polynesian Moorea Island. *Marine Pollution Bulletin*, 64, (10), 2233-2237.
- Buffet P-E, Amiard-Triquet C., Dybowska A., Risso-de Faverney C., Guibbolini M., Valsami- Jones E., **Mouneyrac C.** **2012**. Fate of isotopically labeled zinc oxide nanoparticles in sediment and effects on two endobenthic species, the clam *Scrobicularia plana* and the ragworm *Hediste diversicolor* *Ecotoxicology and Environmental Safety*. 84 (1), 191-198.
- Bottero J-Y., Auffan M., Rose J., **Mouneyrac C.**, Botta C., Labille J., Maison A., Thill A., Chaneac C. **2011**. Manufactured Metal and Metal-oxide Nanoparticles: Properties and Perturbing Mechanisms of Their Biological Activity in Ecosystems. *C. R. Geoscience* 343: 168–176.
- Palais F., **Mouneyrac C.**, Dedourge-Geffard O., Giambérini L., Biagiante-Risbourg S., Geffard A., **2011**. Reproductive and energy reserves cycles in transplanted zebra mussels (*Dreissena polymorpha*). *Chemosphere*, 83: 1062–1073 IF 3.63.
- Buffet P.E., Fossi Tankoua O., Pan J-F., Berhanu D., Herrenknecht C., Poirier L., Amiard-Triquet C., Amiard J-C., Bérard J-B., Risso C., Guibbolini M., Roméo M., Reip P., Valsami-Jones E., **Mouneyrac C.** **2011**. Behavioural and biochemical responses of two marine invertebrates *Scrobicularia plana* and *Hediste diversicolor* to copper oxide nanoparticles. *Chemosphere* 84, 166-174. IF 3.634.

Tlili S., Métais I., Ayache N., Boussetta H., **Mouneyrac C.** 2011. Is the reproduction of *Donax trunculus* affected by their sites of origin contrasted by their level of contamination?. *Chemosphere*, 84, 1362–1370.

Fossi Tankoua O., Buffet P.E., Amiard J.C., Amiard-Triquet C., **Mouneyrac C.**, Berthet B. 2011. Potential influence of confounding factors (size, salinity) on biomarkers in the sentinel species *Scrobicularia plana* used in programmes monitoring estuarine quality. *Environmental Science and Pollution Research* 18:1253–1263.

**Mouneyrac C.**, Perrein-Ettajani H., Amiard-Triquet C. 2010. The use of fitness, reproduction and burrowing behaviour of the polychaete *Nereis diversicolor* in the assessment of estuarine sediment quality. *Environmental Pollution*, 158, 121-128.

Nunez-Nogueira G., **Mouneyrac C.**, Muntz A., Fernandez-Bringas L. 2010. Metallothionein-like proteins and energy reserve levels after Ni and Pb exposure in the Pacific white prawn *Penaeus vannamei*. *Journal of Toxicology*. ID 407360, 9 pages, doi:10.1155/2010/407360

Tlili S., Métais I., Boussetta H., **Mouneyrac C.** 2010. Linking changes at sub-individual and population levels in *Donax trunculus*: Assessment of marine stress. *Chemosphere*, 81, 692-700.

Fossi Tankoua O., Amiard J.C., Amiard-Triquet C., Berthet B., **Mouneyrac C.**, Rainbow P.S. 2010. Towards a comprehensive methodology to assess the health status of coastal and estuarine ecosystems. *ICES CM 2010/F:15*.

Kalman J., Buffet P-E., Amiard J.C., Denis F., **Mouneyrac C.**, Amiard-Triquet C., 2010. Assessment of the influence of confounding factors (weight, salinity) on the response of biomarkers in the estuarine polychaete *Nereis diversicolor*. *Biomarkers*, 15(5), 461-469.

Boldina-Cosqueric I., Amiard J-C., Amiard-Triquet C., Dedourge-Geffard O., Métais I., **Mouneyrac C.**, Moutel B., Berthet B. 2010. Biochemical, physiological and behavioural markers in the endobenthic bivalve *Scrobicularia plana* as tools for the assessment of estuarine sediment quality. *Ecotoxicology and Environmental Safety*, 73(7), 1733-1741.

Bergayou H., **Mouneyrac C.**, Pellerin J., Moukrim A. 2009. Oxydative stress responses in bivalves (*Scrobicularia plana*, *Cerastoderma edule*) from the Oued Souss estuary (Morocco). *Ecotoxicology and Environmental Safety*, 72, 765-769.

Kalman J., Palais F., Amiard J.C., **Mouneyrac C.**, Muntz A., Blasco J., Riba I., Amiard-Triquet C. 2009. Assessment of the health status of populations of the common ragworm *Nereis diversicolor* using biomarkers at different levels of biological organisation. *Marine Ecology Progress Serie*, 393, 55-67.

Durou C., **Mouneyrac C.**, Amiard-Triquet, C. 2008. Environmental quality assessment in estuarine ecosystems: use of biometric measurements and fecundity of the ragworm *Nereis diversicolor* (Polychaeta, Nereididae). *Water Research*, 42 (8-9), 2157-2165.

**Mouneyrac C.**, Linot S., Amiard J-C., Amiard-Triquet C., Métais I., Durou C., Minier C., Pellerin J. 2008. Biological indices, energy reserves, steroid hormones and sexual maturity in the infaunal bivalve *Scrobicularia plana* from three sites differing by their level of contamination. *General and Comparative Endocrinology*, 157, 133-141.

Durou C., **Mouneyrac C.**, 2007 Linking steroid hormone levels to sexual maturity index and energy reserves in *Nereis diversicolor* from clean and polluted estuaries, *General and Comparative Endocrinology*, 150 (1): 106-113.

Durou C., Smith B.D., Roméo M., Rainbow P. S., **Mouneyrac C.**, Mouloud M., Gnassia-Barelli M., Gillet P., Deutsch B., Amiard-Triquet C. 2007. From biomarkers to population responses in *Nereis diversicolor*: Assessment of stress in estuarine ecosystems. *Ecotoxicology and Environmental Safety*, 66 (3): 402-411.

Quiniou F., Damiens G., Gnassia-Barelli M., Geffard A., **Mouneyrac C.**, Budzinski H., Roméo M. 2007. Marine water quality assessment using transplanted oyster larvae. *Environment International*, 33: 27-33.

Durou, C., Poirier, L., Amiard J.C., Budzinski H., Gnassia-Barelli M., Lemenach K., Pelhuet L., **Mouneyrac, C.**, Roméo, M., Amiard-Triquet, C.. 2007. Biomonitoring in a clean and multi-contaminated estuaries based on

biomarkers and chemical analyses in the endobenthic worm *Nereis diversicolor*. Environmental Pollution, 148, 445-458.

**Mouneyrac C.**, Pellerin J., Moukrim A., Ait Alla A., Durou C., Viault N. **2006**. In situ links between energy reserves and steroid hormone levels in *Nereis diversicolor* from the atlantic Moroccan coast, Ecotoxicology and Environmental Safety, 65 (2): 181-187.

Damiens G., **Mouneyrac C.**, Quiniou F., His E., Gnassia-Barelli M., Roméo M. **2006**. Metal bioaccumulation and metallothionein levels in larvae of *Crassostrea gigas*. Environmental Pollution, 140, (3): 492-499.

Ait Alla, C. **Mouneyrac C.**, Durou, A. Moukrim and J. Pellerin. **2006**. Tolerance and biomarkers as useful tools for assessing environmental quality in the Oued Souss estuary (Bay of Agadir, Morocco). Comparative Biochemistry and Physiology Part C: Toxicology & Pharmacology, 143(1): 23-29.

Nunez-Nogueira G., **Mouneyrac C.**, Amiard J.C., Rainbow P.S. **2006**. Subcellular distribution of zinc and cadmium in the hepatopancreas and gills of the decapod crustacean *Penaeus indicus*. Marine Biology, 150: 197-211.

Durou C., **Mouneyrac C.**, Amiard-Triquet C. **2005**. Toxicity Tests and Assessment of Energy Reserves in the Polychaete *Nereis diversicolor* in Clean and Contaminated Estuaries. Environmental Toxicology, 20 (1): 23-31.

Berthet B., **Mouneyrac C.**, Perez T., Amiard-Triquet C. **2005**. Metallothionein concentration in sponges (*Spongia officinalis*) as a biomarker of metal contamination. Comparative Biochemistry and Physiology (C), 141: 306-313.

Berthet B., **Mouneyrac C.**, Amiard J.C., Berthelot Y., Rainbow P. S. Smith B.D., **2003**. Response to metals of the polychaete annelid *Nereis (Hediste) diversicolor*, a key species in estuarine and coastal sediments. Archives of Environmental Contamination and Toxicology, 45(4): 468-78.

**Mouneyrac C.**, Mastain O., Amiard J.C., Amiard-Triquet C., Beaunier P., Jeantet A.Y., Smith B.D., Rainbow P. S. **2003**. Trace metal detoxification and the tolerance of the estuarine worm *Hediste diversicolor* chronically exposed in their environment. Marine Biology, 143: 731-744.

**Mouneyrac C.**, Pellerin J., Amiard-Triquet C., **2003**. Progesterone levels in a key species in coastal sediments, the Annelid polychaete *Hediste diversicolor*. Proceedings of the 30th Annual Toxicity Workshop: Sept. 28 to Oct. 1, 2003. Ottawa, Ontario, Canada. Canadian technical Report of Fisheries and aquatic Sciences 2510: 38-44.

**Mouneyrac C.**, Amiard J.C., Amiard-Triquet C., Cottier A., Rainbow P. S., Smith B. D., **2002**. Partitioning of accumulated trace metals in the talitrid amphipod crustacean *Orchestia gammarellus*: a cautionary tale on the use of metallothionein-like proteins as biomarkers. Aquatic Toxicology 57 (4): 225-242.

Geffard A., Amiard-Triquet C., Amiard J.C., **Mouneyrac C.**, **2001**. Temporal variations of metallothionein and metal concentrations in the digestive gland of oysters *Crassostrea gigas* from a clean and a metal-rich sites. Biomarkers, 6(2): 91-107.

**Mouneyrac C.**, Amiard-Triquet C., Amiard J.C., **2001**. Metallothionein concentrations in crabs (*Pachygrapsus marmoratus*) sampled from a metal-rich estuary during or beyond the reproductive period. Comparative Biochemistry and Physiology, 129(3): 193-209.

**Mouneyrac C.**, Geffard A., Amiard J.C., Amiard-Triquet C., **2000**. Metallothionein-like proteins in *Macoma balthica*: effects of metal exposure and natural factors. Canadian Journal of Fisheries and Aquatic Sciences, 57: 34-42.

Legras S., **Mouneyrac C.**, Amiard J.C., Amiard-Triquet C., Rainbow P.S., **2000**. Changes in metallothionein concentrations in response to variation in natural factors (salinity, sex, weight) and metal contamination in crabs from a metal-rich estuary. Journal of Experimental Marine Biology and Ecology, 246: 259-279.

**Mouneyrac C.**, Berthet B., Amiard J.C., **1999**. Cd distribution in oysters (*Crassostrea gigas*) exposed chronically in situ. Water, Air and Soil Pollution, 112: 187-196.

Amiard-Triquet C., Altmann S., Amiard J.C., Ballan-Dufrançais C., Baumard P., Budzinski H., Crouzet C., Garrigues P., His E., Jeantet A.Y., Menasria R., Mora P., **Mouneyrac C.**, Narbonne J. F., Pavillon J.F., **1998**.

Fate and effects of micropollutant in the Gironde estuary, FR : a multidisciplinary approach. *Hydrobiologia*, 373/374: 259-279.

**Mouneyrac C.**, Amiard-Triquet C., Amiard J.C., **1998**. Effects of natural factors: salinity and body weight on cadmium, copper, zinc and Metallothionein Like Protein levels in resident populations of oysters (*Crassostrea gigas*) from a polluted estuary. *Marine Ecology Progress Series*, 162: 125-135.

## Book Chapters

---

**Mouneyrac C.**, Péry A. **2017**. Conséquences des perturbations du métabolisme énergétique In : *Biomarqueurs en écotoxicologie aquatique*, 2<sup>nd</sup> édition, Tec&Doc, Amiard et Amiard-Triquet C. Ed », 270-296.

**Mouneyrac C.**, Unrine J.M., Giamberini L., Tsyusko O.V., Santaella C., Di Giulio R.T., Schwab F. **2016**. *Ecotoxicology Principles for Manufactured Nanomaterials Environmental Nanotechnology: Applications and Impacts of Nanomaterials*, Second Edition. Wiesner M., Bottero JY (Eds) McGraw-Hill Education, 141-166.

Yung M.M.N., **Mouneyrac C.**, Kenneth Mei Yee Leung K.M.Y. **2015**. Ecotoxicity of zinc oxide nanoparticles in the marine environment. In *Encyclopedia of Nanotechnology*.

**Mouneyrac C.**, Selck H., Syberg C. Ecotoxicological risk of NanoMaterials. **2015**. In *Aquatic Ecotoxicology: Advancing Tools for Dealing with Emerging Risks* C. Amiard-Triquet, J.C. Amiard, C. Mouneyrac Eds. Elsevier.

**Mouneyrac C.**, Durou C., Péry A. Consequences of energy metabolism impairments. **2013**. In: *Ecological Biomarkers: Indicators of Ecotoxicological Effects*. CRC Press, Boca Raton, 307-326.

Amiard-Triquet, C., Cossu-Leguille C., **Mouneyrac C.** **2013**. Biomarkers of defence, tolerance and ecological consequences. In: *Ecological Biomarkers: Indicators of Ecotoxicological Effects*. CRC Press, Boca Raton, 45-74.

**Mouneyrac C.**, Amiard-Triquet, C. **2013**. Biomarkers of Ecological relevance. In: *Encyclopedia of Aquatic Ecotoxicology*, Springer, 221-236.

Amiard-Triquet, C., **Mouneyrac C.**, Berthet B. **2013**. Polychaetes in ecotoxicology. In: *Encyclopedia of Aquatic Ecotoxicology*, Springer, 893-908.

Biagianti-Risbourg S., Paris-Palacios S., **Mouneyrac C.**, Amiard-Triquet, C. **2013**. Pollution tolerance, adaptation and resistance in ecotoxicology. In: *Encyclopedia of Aquatic Ecotoxicology*, Springer, 883-932.

Caumette P., **Mouneyrac C.**, Guillouzo A. **2012**. Contaminants et environnement: constater, diffuser, décider. *Les cahiers de l'ANR*, N°6. 159p. Ed ANR.

**Mouneyrac C.**, Roméo M. **2011**. Stress proteins and the acquisition of tolerance. In: *Tolerance to Environmental Contaminants*, CRC Press, Taylor & Francis, 209-227.

**Mouneyrac C.**, Leung P.T.Y. Leung K.M.Y. **2011**. Cost of tolerance. In: *Tolerance to Environmental Contaminants*, CRC Press, Taylor & Francis, 265-297.

Amiard-Triquet, C., Berthe T., Creach A., Denis F., Durou C., Gevaert F., **Mouneyrac C.**, Ramond JB., Petit F. **2009**. Tolerance in organisms chronically exposed to estuarine pollution. In: *Environmental Assessment of Estuarine Ecosystems: A Case study*, CRC Press, Taylor & Francis 131-154

**Mouneyrac C.**, Durou C., Gillet P., Hummel H., Amiard-Triquet, C. **2009**. Linking energy metabolism, reproduction abundance and structure of *Nereis diversicolor* populations. In: *Environmental Assessment of Estuarine Ecosystems: A Case study*, CRC Press, Taylor & Francis 155-178.

Amiard-Triquet, C. Cossu-Leguille C., **Mouneyrac C.** **2008**. Les biomarqueurs de défense, la tolérance et ses conséquences écologiques. In « *Les biomarqueurs dans l'évaluation de l'état écologique des milieux aquatiques*. Lavoisier, Tec&Doc, Amiard et Amiard-Triquet C. Ed », 2008, 55-81.

Durou C., **Mouneyrac C.**, Pellerin J., Pery A., **2008**. Conséquences des perturbations du métabolisme énergétique. In « Les biomarqueurs dans l'évaluation de l'état écologique des milieux aquatiques. Lavoisier, Tec&Doc, Amiard et Amiard-Triquet C. Ed », 2008, 273-289.

### **Communications (since 2011)**

---

Tlili S., Métais I., Ayache N., Boussetta H., **Mouneyrac C.** 2011. Is the reproduction of *Donax trunculus* affected by their sites of origin contrasted by their level of contamination?.2011. SETAC Europe 21<sup>st</sup> Annual meeting "Ecosystem Protection in a Sustainable World: a Challenge for Science and Regulation. 19-21 May, Milan

Pan JF, Buffet PE, Poirier L., Amiard-Triquet C, Gilland D, Guibbolini M., Risso C, Roméo M., Valsami-Jones E., **Mouneyrac C.** 2011. Ecotoxicology of gold nanoparticles in endobenthic invertebrates, the tellinid clam *Scrobicularia plana* and the polychaete worm *Nereis diversicolor*. SETAC Europe 21<sup>st</sup> Annual meeting "Ecosystem Protection in a Sustainable World: a Challenge for Science and Regulation. 19-21 May, Milan

Blanchet-Letrouvé I, Fossi-Tankoua O., Poirier L., Aït-Aïssa S., Herrenknecht C., Budzinski H., Dufour S., **Mouneyrac C.** 2011. Evaluation of the contamination of the Loire estuary by endocrine disruptors. SETAC Europe 21<sup>st</sup> Annual meeting "Ecosystem Protection in a Sustainable World: a Challenge for Science and Regulation. 19-21 May, Milan

Fossi-Tankoua O, Amiard J-C Berthet B, **Mouneyrac C.**, Amiard-Triquet C 2011. The use of ecologically relevant and cost-effective biomarkers to assess the health status of estuarine and coastal waters. 31 May–3 June 2011, Buea, Cameroon. SETAC Afrique 5<sup>th</sup> Annual meeting.

Amiard J-C. Buffet P.E., Pan JF, Poirier L., Herrenknecht, C. Amiard-Triquet C., Guibbolini M., Risso C, Bahraru D., **Mouneyrac C.** 2011. Evaluation du risque environnemental des nanoparticules métalliques manufacturées: biodisponibilité et effets à l'égard de deux espèces clés des écosystèmes estuariens, l'annélide *Nereis diversicolor* et le bivalve *Scrobicularia plana*. 22 juin 2011. SEFA. Paris.

Pan JF, Amiard JC, Amiard-Triquet C, Buffet PE, Gilland D, **Mouneyrac C.**, Joubert Y. 2011. The influence of gold nanoparticle size on their bioaccumulation and effects at the cellular level in an estuarine clam *Scrobicularia plana*. 15<sup>th</sup> International Symposium on Toxicity Assessment. 3-8 July 2011. Hong Kong.

Tlili S., Minguez L., Boussetta H., **Mouneyrac C.** 2011. From biomarker responses to integrated health index: a comparative study for the ecotoxicological risk assessment of *Donax trunculus* in the Gulf of Tunis. The 11<sup>th</sup> Tunisia-Japan Symposium on Society, Science and Technology November 11-13<sup>th</sup>, 2011. Hammamet.

Tlili, S., Boussetta, H., **Mouneyrac C.** 2011. Evaluation du risque environnemental de l'exposition chronique de populations naturelles de mollusques bivalves à des effluents urbains : étude de la perturbation de la reproduction chez *Donax trunculus* dans le golfe de Tunis. In : Colloque national de l'ANCSEP : Contaminants, Environnement et Santé- CES1. Hammamet, Tunisie, 20-21 Décembre 2011.

Fossi Tankoua O ; Berthet B., Amiard J-C., **Mouneyrac C.** Amiard-Triquet C. L'état de santé des zones côtières : distorsion entre l'évaluation selon la DCE et les données des biomarqueurs dans des invertébrés endobenthiques. SEFA Lyon July 3-4 2012.

Buffet P-E, Châtel A., Vergnoux A., Akcha F., Reip P., Valsami-Jones E., **Mouneyrac C.** Impact génotoxique de nanoparticules métalliques chez deux espèces estuariennes : *Scrobicularia plana* et *Nereis diversicolor*. ECOBIM Reims, France. June 2012 (Poster presentation).

Couderc M, Bimbot M, Poirier L, Vergnoux A, Karolak S, Herrenknecht C, Levi Y, Le Bizec B, **Mouneyrac C.** 2012. Activités de perturbations thyroïdiennes mises en évidence dans l'eau et les sédiments de l'estuaire de la Loire par tests cellulaires PC-DR-LUC. ECOBIM Reims, France. June 2012 (Poster presentation).

Buffet P-E, Amiard-Triquet C., Berhanu D., Dybowska A., Guibbolini M., Risso de Faverney C., Valsami-Jones E., **Mouneyrac C.** Fate of isotopically modified ZnO nanoparticles in sediment and biochemical and behavioural responses of two marine invertebrates *Nereis diversicolor* and *Scrobicularia plana*. SETAC Europe 22<sup>nd</sup> Annual Meeting, Berlin, Germany. May 2012. (Poster presentation).

Couderc M, Bimbot M, Poirier L, Vergnoux A, Karolak S, Herrenknecht C, Levi Y, Le Bizec B, **Mouneyrac C.** 2012. Detection of potential thyroid disruptors by a PC-DR-LUC assay in sediments and water of Loire river estuary (France). SETAC Europe 22nd Annual Meeting, Berlin, Germany. May 2012. (Poster presentation).

Métais I., Mengue Ekouma E., Ngpan R., Planes S., **Mouneyrac C.**, 2012. Oxydative stress biomarkers and biological indices in the giant clam (*Tridacna maxima*) and the reef fish (*Epinephelus merra*) as tools for the assessment of marine water quality of Moorea Island. 6th SETAC World Congress / SETAC Europe 22nd Annual Meeting 20-24 mai Berlin (Germany).

Buffet P-E, Richard M., Caupos F., Vergnoux A., Perrein-Ettajani H., Thomas-Guyon H., Luna-Acosta, Amiard-Triquet C., Amiard J-C., Risso de Faverney C., Guibbolini M., Reip P., Valsami-Jones E., **Mouneyrac C.** A mesocosm study of fate and effects of CuO nanoparticles on endobenthic species (*Scrobicularia plana*, *Nereis diversicolor*) Goldschmidt 2012. Montréal May 2012. (Oral presentation).

Perrein-Ettajani H., Buffet P-E, Wu P., Gilliland D., Reip. P., Valsami-Jones E., **Mouneyrac C.** Behavioural responses of *Hediste diversicolor* (Polycheta) to Ag, CdS or CuO nanoparticles using the Multi Freshwater Biomonitor (MFB). International Conference on Safe production and use of nanomaterials, Nanosafe 2012, November 2012, Grenoble, France (Poster presentation).

Labille J., **Mouneyrac C.**, Auffan M. The mesocosm approach to study the exposure, accumulation and toxicity of nanoparticles to aquatic/marine organisms. 1st Marine NanoEcotox Workshop, NanoSafety cluster, Palermo, Italy, November 2012 (oral presentation)

Couderc M, Poirier L, Zalouk-Vergnoux A, Blanchet-Letrouvé I, Kamari A, Herrenknecht C, Marchand P, **Mouneyrac C.**, Le Bizec B. 2013. Assessment of polybrominated diphenyl ethers (PBDEs) and perfluorinated compounds (PFCs) in two fish species, *Anguilla Anguilla* and *Platycthtys flesus*, from the Loire estuary: correlation with size, sex, geographic locations and thyroid effects. PRIMO 17 May 5-8, Faro (Portugal).

Blanchet-Letrouvé I, Zalouk-Vergnoux A, Vénisseau A., Couderc M., Le Bizec B., Elie P., Herrenknecht C., **Mouneyrac C.**, Poirier C. 2013. Dioxin-like, non-dioxyn-like PCB and PCDD/F contamination in European eel (*Anguilla Anguilla*) from the Loire estuarine continuum: spatial and biological variabilities. PRIMO 17 May 5-8, Faro (Portugal).

Blanchet-Letrouvé I. Lafont A-G, Poirier C, Baloche S, Zalouk-Vergnoux A, Dufour S, **Mouneyrac C.** 2013. Vg mRNA induction in an endangered fish species (*Anguilla anguilla*) from the Loire Estuary (France). SETAC Europe 23rd Annual Meeting Glasgow, UK, 12-16 May.

**Mouneyrac C.** 2013. Environmental impacts of metal-bearing nanoparticles. Hong Kong University of Science and Technology. June 2013.

Garrigues P., **Mouneyrac C.** 2013. Nanomaterials in the marine environment. 7th International Conference on Marine Pollution and Ecotoxicology. 17 – 21 June 2013, Hong Kong. (invited speaker).

**Mouneyrac C.** Rose J., Labille J., Auffan M., Bottero J-Y. 2013. Biogeochemistry and ecotoxicity of nanoparticles in estuarine and coastal waters. 12th International Biogeochemistry Symposium Plymouth University, 30 June-4 July. (invited speaker).

Buffet PE., Poirier L., Vergnoux A., Pan JF., Berhanu D., Dybowska A., Châtel A., Amiard-Triquet C., Richard M., Thomas-Guyon H., Perrein-Ettajani H., Risso C., Guibbolini M., Reip P., Gilliland D., Valsami-Jones E., **Mouneyrac C.** 2013. Fate and toxicity effects of metal-bearing nanoparticles on two marine invertebrates, the bivalve mollusc *Scrobicularia plana* and the annelid polychaete *Nereis diversicolor*. 8th International Conference on the Environmental Effects of Nanoparticles and Nanomaterials, Aix en Provence. 3-5 July.

Couderc M, Poirier L, Zalouk-Vergnoux, Blanchet-Letrouvé I, Kamari A, Cariou R, Vénisseau A, Veyrand B, Marchand P, **Mouneyrac C.**, Le Bizec B. 2013.. Assessment of polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), perfluorinated alkylated substances (PFAs) in european eels (*Anguilla anguilla*) from the Loire estuary (France). Dioxyn 2013 Symposium Daegu, Republic of Koorea. August 25-30 2013

Geffard A., Amiard-Triquet C., Charron L., Chaumot A., Dedourge-Geffard O., Geffard O., **Mouneyrac C.** 2013. Étude de biomarqueurs chez les invertébrés aquatiques. Colloque ARET. Modèles biologiques, modèles mathématiques : avancées et perspectives en Toxicologie et Ecotoxicologie. 20-21 Juin 2013. Paris

**Mouneyrac C.**, 2013. Ecotoxicologie des nanoparticules en milieu marin. Ateliers thématiques Nano-environnement. CNRS, November 19. Paris

Fessard V., **Mouneyrac C.**, Toxicité et écotoxicité des nanoparticules d'argent : acquis et incertitudes ? Colloque ARET - SFTG 2014, Eco - Géno - Toxicologie des Nanomatériaux : bilan et perspectives. June 3-4. Paris.

Métais I., Perrein H., Mouloud M., Châtel A., Gillet P., Benyoucef I., Thibaul A., Metzger E., Lagauzère S., **Mouneyrac C.**, 2014. Impact of environmental change on bioturbators and bioturbation rates 14th Nereis Park Conference, 07-10 July 2014, Plymouth, UK.

Bertrand L., Monferrán M.V., Métais I., **Mouneyrac C.**, Amé M.V., 2014. Metallothionein induction by an essential metal (Zn) in a freshwater decapod crustacean of South America, *Palaemonetes argentinus*. 24 th Annual meeting SETAC Europe. 11-15 May. Basel.

Zalouk-Vergnoux A., Buffet PE., Châtel A., Berthet B., Métais I., Perrein-Ettajani H., Poirier L., Thomas-Guyon H., Risso-de Faverney C., Guibbolini M., Gilliland D., Valsami-Jones E., **Mouneyrac C.** 2014. The mesocosm approach to estimate the fate, bioaccumulation and toxicity of silver nanoparticles on two endobenthic species: the bivalve mollusk *Scrobicularia plana* and the worm *Nereis diversicolor*. 24 th Annual meeting SETAC Europe. 11-15 May. Basel.

Châtel A., Buffet PE., Perrein-Ettajani H., Métais I., Gilliland D., Risso-de Faverney C., Guibbolini M., Valsami-Jones E., **Mouneyrac C.** 2014. Genotoxic and cytotoxic effects of silver nanoparticles in the bivalve *Scrobicularia plana*. The Fourth International Conference NANOSAFE 2014 18-20th November, Grenoble, France.

Bertrand C., Poirier L., Zalouk-Vergnoux A., Devin S., Auffan M., Tella M., Labille J., Perrein-Ettajani H., Giamberini L., **Mouneyrac C.** 2014. Effect of silver nanoparticles on estuarine bivalve *Scrobicularia plana*. The Fourth International Conference NANOSAFE 2014 18-20th November, Grenoble, France.

Tella M., Mohr E., Pariat A., Borschneck D., Angeletti B., Cabie M., Ferrasse JH., Masion A., **Mouneyrac C.**, Giamberini L., Auffan M., 2014. Aging of nano-products and impacts toward aquatic organisms across a salinity gradient. The Fourth International Conference NANOSAFE 2014 18-20th November, Grenoble, France.

Garaud M., Andreï J., Bertrand C., Brulé N., Devin S., Felten V., Guérol F., **Mouneyrac C.**, Pain-Devin S., Poirier L., Pagnout C., Poinssaint JF., Rousselle P., Sohm S., Wagner P., Zalouk-Vergnoux A. Giambérini L. 2014. Overview of silver Engineered Manufactured Nanomaterials: fate and effects on several estuarine and freshwater invertebrate species using a multimarker approach. The Fourth International Conference NANOSAFE 2014 18-20th November, Grenoble, France.

**C. Mouneyrac**, L. Poirier, P-E. Buffet, A. Zalouk-Vergnoux, A. Châtel, H. Perrein-Ettajani, C. Risso, M. Guibbolini, D. Gilliland, E. Valsami-Jones. 2014. The use of two marine invertebrate species; the bivalve mollusk *Scrobicularia plana* and the ragworm *Nereis diversicolor*, to assess ecotoxicity of metal-based engineered nanoparticles. 6th Bilateral Seminar Italy-Japan & 2nd Marine NanoEcoSafety Workshop Palermo, Italy, 17-20 November 2014. (Oral)

**Mouneyrac C.**, 2015. Ecotoxicité des nanomatériaux en milieu aquatique. Forum Nanoresp. LNE, Paris. 5 February 2015.

Blanchet-Letrouvé I., Poirier L., Zalouk-Vergnoux A., Lafont A-G., Baloche S., Dufour S., **Mouneyrac C.** 2015. Aromatase and vitellogenin mRNA expression in an endangered fish species (*Anguilla Anguilla*) from the Loire estuary (France) : relationships with PCB contamination. 25th Annual Meeting SETAC Europe. 3-7 May 2015, Barcelona, Spain (oral).

Châtel A., Bruneau M., Perrein-Ettajani H., **Mouneyrac C.** 2015. DNA integrity in the bivalve *Scrobicularia plana* exposed to Benzo[a]Pyrene. 25th Annual Meeting SETAC Europe. 3-7 May 2015, Barcelona, Spain (poster).

Bertrand C., Zalouk-Vergnoux A., **Mouneyrac C.**, Poirier L., Châtel A., Perrein-Ettajani H., Auffan M., Tella M., Pagnout C., Devin S., Giambérini L. Influence of salinity on fate and behavior of silver-based manufactured nanomaterials and toxicity effects toward two endobenthic bivalves *Corbicula fluminea* and *Scrobicularia plana*. 25th Annual Meeting SETAC Europe. 3-7 May 2015, Barcelona, Spain (oral).

Couderc M., Marchand J., Zalouk-Vergnoux A., Kamari A., Moreau B., Blanchet-Letrouvé I., Le Bizec B., **Mouneyrac C.**, Poirier L. Multi-contamination related to variations in thyroid endocrine status of wild European eels (*Anguilla anguilla*) from the Loire estuary (France). 25th Annual Meeting SETAC Europe. 3-7 May 2015, Barcelona, Spain (oral).

Couderc M., Poirier L., Zalouk-Vergnoux A., Kamari A., Blanchet-Letrouvé I., Marchand P., Vénisseau A., Veyrand B., **Mouneyrac C.**, Le Bizec B. Occurrence of PFAS in the European eel (*Anguilla anguilla*) from the Loire estuary (France). 25th Annual Meeting SETAC Europe. 3-7 May 2015, Barcelona, Spain (poster).

**Mouneyrac C.**, 2015. Nanotechnologies and sustainable development: Risks and opportunities. International Congress "Green business and sustainable development". 14-16 May 2015. Hammamet, Tunisia.

Bertrand L., Monferran M.V., **Mouneyrac C.**, Amé M.V. Ctalamochita River watershed biomonitoring using two South American native species: First approach. SETAC Latin America 11th Biennial Meeting. Buenos Aires, 7-10 Sept 2015.

Barrick A., Châtel A., Perrein-Ettajani H., Marion J.M., Mouloud M., Gillet P., Bruneau M., Métais I., **Mouneyrac C.** 2015. Environmental health assessment on the Seine estuary using multiple levels of biological organization. 3eme Colloque Zones Ateliers. 14-16 Octobre 2015, Paris.

**Mouneyrac C.** Ecotoxicologie environnementale : contexte et enjeux. Programme scientifique de l'Ecole de « Giens » 2015 : Groupe Interdisciplinaire pour l'étude des Effets environnementaux des Nanotechnologies. Luzarches. 27 au 29 oct. 2015. (Invited)

Châtel A., Perrein-Ettajani H., Bruneau M., Poirier L., Zalouk-Vergnoux A., **Mouneyrac C.** 2015. Toxicity effects of metal-based nanoparticles towards two estuarine invertebrates: *Scrobicularia plana* and *Hediste diversicolor*. SETAC America. Salt Lake City. Nov. 2015. (Poster)

Tella M., Mohr M., Pariat A., Borschneck D., Angeletti B., **Mouneyrac C.**, Giambérini L., Auffan M. Altération de nanomatériaux à travers un gradient de salinité. 7ème journée du Réseau des laboratoires Publics de référence pour l'analyse des Contaminants de l'environnement et de l'alimentation. Janvier 2016.

**Mouneyrac C.** Challenges on fate, behavior and effects of nanomaterials in the marine environment. Nanotech 2016, EGF 2016, NanoMatEn 2016 and NanoMetrology June; 31-July: 1, 2016.

Barrick A., Châtel A., Perrein-Ettajani H., Marion JM, Mouloud M., Gillet P., Bruneau M., Métais I., **Mouneyrac C.** Environmental Health Assessment on the Seine Estuary Using Multiple Levels of Biological Organization. Colloque biennal des zones ateliers. Paris, 14-16 Octobre 2015.

Barrick A., Bruneau M., **Mouneyrac C.**, Châtel A. The Development and Implementation of Safer-by-Design Strategies for Nanomaterials through a High Throughput Screening Approach. Le Havre, ECOBIM 30 Mai-1 juin 2016.

Couderc M., Poirier L., Métais I., Gandolfi F., Perrein-Ettajani H., Zalouk-Vergnoux A., Malleret L., Châtel A., Kamari A., Mouloud M., Gilet P., Hamers T., **Mouneyrac C.** Qualité des sédiments de l'estuaire de la Loire : contamination par les contaminants organiques de type perturbateurs thyroïdiens et état de santé de la macrofaune. **Colloque** 2016 de la Société Française d'Ecotoxicologie Fondamentale et Appliquée. Reims, 29-30 juin 2016.

Châtel A., Perrein-Ettajani H., Bruneau M., Poirier L., Zalouk-Vergnoux A., **Mouneyrac C.** Toxicity effects of metal-based nanoparticles towards two estuarine invertebrates: *Scrobicularia plana* and *Hediste diversicolor*. SETAC North America 36th Annual Meeting. 1-5 November 2015

Bertrand C., Devin S., **Mouneyrac C.**, Auffan M., Châtel A., Koehle-Divo V., Pagnout C., Pain-Devin S., Pariat A., Perrein-Ettajani H., Poirier L., Zalouk-Vergnoux A., Giambérini L. Cross effects of salinity and ceria

nanoparticles on two endobenthic bivalves *Corbicula fluminea* and *Scrobicularia plana*: multibiomarker assessment SETAC Europe 26th Annual Meeting. Nantes, 22-26 mai 2016.

Chouvelon T., **Mouneyrac C.**, Taverne H., Dominique D., Carole B., Brach-Papa C, Bruzac S., Crochet S., Knoery J., Rozuel E. Biological-chemical coupling for the monitoring of trace metal contaminants in food webs: the case study of a land-to-sea continuum in the North-East Atlantic. SETAC Europe 26th Annual Meeting. Nantes, 22-26 mai 2016.

Devin S., Buffet PE., Châtel A., Perrein-Ettajani H., **Mouneyrac C.** The Integrated Biomarker Response: a suitable tool to evaluate toxicity of metal-based nanoparticles. SETAC Europe 26th Annual Meeting. Nantes, 22-26 mai 2016.

Barrick A., Perrein-Ettajani H., Châtel A., Mouloud M., Gillet P., Bruneau M., **Mouneyrac C.** Environmental health assessment of the Seine estuary using a battery of indicators at different levels of biological organization. SETAC Europe 26th Annual Meeting. Nantes, 22-26 mai 2016.

Phuong N.N, Zalouk-Vergnoux A., Poirier L., Kamari A., Sussarellu R., Rouxel J., Akcha F., Châtel A., **Mouneyrac C.**, Lagarde F. Comparison of mussel tissues preparation procedures to perform microplastic analysis; application to mussels (*Mytilus edulis*) from the coast of Pays de la Loire (France). SETAC Europe 26th Annual Meeting. Nantes, 22-26 mai 2016.

Barrick A., Bruneau M., **Mouneyrac C.** The Development and Implementation of Safer-by-Design Strategies for Nanomaterials through a High Throughput Screening Approach. ECOBIM 2016. Le Havre 30 mai 1er juin 2016.

Phuong N.N, Zalouk-Vergnoux A., Poirier L., Kamari A., **Mouneyrac C.**, Lagarde F. Quelle adéquation entre les microplastiques trouvés dans l'environnement et ceux utilisés en laboratoire? Forum Ecotox-Rovertain, 11-13 octobre 2016, Valence, France

Phuong N.N.; Zalouk-Vergnoux A., Poirier L.; Kamari A.; Rouxel J., Sussarellu R., Akcha F., Châtel A.; **Mouneyrac C.**; Lagarde F. Development of analytical procedure for microplastic analysis in biological tissues: application to mussels (*Mytilus edulis*) from the Atlantic coast (Pays de la Loire, France). 7th SETAC World Congress, SETAC North America 37th Annual Meeting, 6–10 November 2016, Orlando, FL, USA.

**Mouneyrac C.**, Auffan M., Giamberini L., Rose J., Wiesner M. Bottero J.Y. How to improve the environmental impact assessment of engineered nanomaterials under realistic conditions? The use of mesocosm facilities. COST Enter final Meeting, 7-8 février 2017, Aveiro Portugal

Barrick A., Bruneau M., **Mouneyrac C.**, Châtel A. Nanomaterial Toxicity through a High Throughput Screening Approach on *Mytilus edulis* Hemocytes. 7th SETAC World Congress, SETAC North America 37th Annual Meeting, 6–10 November 2016, Orlando, FL, USA.

Barrick A., Bruneau M., **Mouneyrac C.**, Châtel A. Nanomaterial Toxicity through a High Throughput Screening Approach on *Mytilus edulis* Hemocytes. COST Enter final Meeting, 7-8 février 2017, Aveiro Portugal

Breitwieser M., **Mouneyrac C.**, Bruneau M., Barbarin M., Churlaud C., Thomas-Guyon H. Use of metallothioneins as biomarkers for environmental quality assessment on Atlantic coast & Harbour sites (France). YES SETAC Europe meeting, 16-20 février 2017, Stockholm, Sweden.