

LISTE DES PUBLICATIONS 2012-2015

GdR PHYCOTOX

AXE 1



Équipes :

- 1) Laboratoire PHYC (Ifremer Nantes)
- 2) Unité Pesticides et Biotoxines marines (Anses, laboratoire de sécurité des aliments – site de Maisons Alfort)
- 3) Unité Toxicologie des Contaminants (Anses, Fougères)
- 4) Unité MARBEC (UMR Université de Montpellier – Ifremer Sète)
- 5) Unité CNRS-CEA Saclay
- 6) Laboratoire des Micro-algues Toxiques (Institut Louis Malardé)
- 7) Laboratoire d'Océanographie de Villefranche, équipe B&B (Biodiversité et Biogéochimie)
- 8) Laboratoire Environnement littoral et Ressources aquacoles, Bretagne Occidentale, Unité Littoral, Ifremer

2015

Biré, R., Trotureau, S., Lemée, R., Oregioni, D., Delpont, C., Krys, S., Guérin, T. (2015). Hunt for palytoxins in a wide variety of marine organisms harvested in 2010 on the French Mediterranean coast. *Marine Drugs* 13(8), 5425-5446. **(Equipes 1, 7)**

Brissard, C., Hervé, F., Sibat, M., Séchet, V., Hess, P., Amzil, Z., Herrenknecht, C. (2015) Characterization of ovatoxin-h, a new ovatoxin analog, and evaluation of chromatographic columns for ovatoxin analysis and purification. *J. Chromatogr. A* 1388, 87-101. **(Equipe 1)**

Hess, P., Twiner, M., Kilcoyne, J., Sosa, S. (2015) Azaspiracid Toxins: Toxicological Profile, in: Gopalakrishnakone, P., Haddad Jr, V., Kem, W.R., Tubaro, A., Kim, E. (Eds.), *Marine and Freshwater Toxins*. Springer Netherlands, pp. 1-19. **(Equipe 1)**

Kilcoyne, J., Twiner, M.J., McCarron, P., Crain, S., Giddings, S.D., Foley, B., Rise, F., Hess, P., Wilkins, A.L., Miles, C.O. (2015) Structure Elucidation, Relative LC–MS Response and In Vitro Toxicity of Azaspiracids 7–10 Isolated from Mussels (*Mytilus edulis*). *J. Agric. Food Chem.* 63, 5083-5091. **(Equipe 1)**

McCarron P., Giddings S.D., Reeves K., Hess P., Quilliam M.A. (2015) A mussel (*Mytilus edulis*) tissue certified reference material for the marine biotoxins azaspiracids. *Anal. Bioanal. Chem.* 407 (11) 2985-2996. **(Equipe 1)**

Poyer S., Loutelier C., Coadou G., Mondeguer F., Enche J., Bossée A., Hess P., Afonso C. (2015) Identification and separation of saxitoxins using traveling wave ion mobility mass spectrometry. *J. Mass Spectrom.*, 50 (1) 175-181. **(Equipe 1)**

Réveillon, D., Abadie, E., Séchet, V., Masseret, E., Hess, P., Amzil, Z., 2015. β -N-methylamino-l-alanine (BMAA) and isomers: Distribution in different food web compartments of Thau lagoon, French Mediterranean Sea. *Mar. Environ. Res.* 110, 8-18. **(Equipes 1, 4)**

Zendong, Z., McCarron, P., Herrenknecht, C., Sibat, M., Amzil, Z., Cole, R.B., Hess, P., 2015. High resolution mass spectrometry for quantitative analysis and untargeted screening of algal toxins in mussels and passive samplers. *J. Chromatogr. A* 1416, 10-21. **(Equipe 1)**

2014 :

Anonymous (2014) Contamination des requins, notamment tigre et bouledogue, par des ciguatoxines : occurrence, méthodes analytiques, cas humains rapportés et éléments d'éthologie, Avis de l'Anses dans le cadre de la saisine 2013-SA-0198 (rapport d'expertise collective : Vernoux J.P., Chinain M., Diogene J., Frémy J.-M., Hess P., Soria M., Trotereau S., Turquet J., Arnich N.) **(Equipes 1, 2, 6)**

<https://www.anses.fr/fr/documents/ERCA2013sa0198Ra.pdf>

Brissard C., Herrenknecht C., Séchet V., Hervé F., Pisapia F., Harcouet J., Lémée R., Chomérat N., Hess P., Amzil Z. (2014) Complex toxin profile of French Mediterranean *Ostreopsis cf. ovata* Strains, Seafood Accumulation and Ovatoxin Prepurification. *Mar. Drugs*, 12(5) 2851-2876. **(Equipes 1, 7, 8)**

Fan L., Sun G., Qiu J., Ma Q., Hess P., Li A. (2014) Effect of seawater salinity on pore-size distribution of HP20 resin and its adsorption of diarrhetic shellfish toxins. *J. Chromatogr. A*, 1373, 1-8. **(Equipe 1)**

Hess P., McCarron P., Krock B., Kilcoyne J., Miles C.O. (2014) Azaspiracids: chemistry, biosynthesis, metabolism and detection. Chapter 27 in "Seafood and Freshwater Toxins. Pharmacology, Physiology and Detection; 3rd edition", pp. 799-821. Editor: Luis Botana; CRC Press, Taylor and Francis, Boca Raton, London, New York. **(Equipe 1)**

Jauffrais, T., Séchet, V., Truquet, P., Amzil, Z., Herrenknecht, C., Hess, P. (2014) Effect of Dilution Rate on *Azadinium spinosum* and Azaspiracid (AZA) Production in Pilot Scale Photobioreactors for the Harvest of AZA1 and -2, Molluscan Shellfish Safety. Springer Netherlands, pp. 197-204. **(Equipe 1)**

Kilcoyne J., Nulty C., Jauffrais T., McCarron P., Hervé F., Foley B., Rise F., Crain S., Wilkins A., Twiner M., Hess P., Miles C.O. (2014) Isolation, structural elucidation, relative LC-MS response and in vitro toxicity of novel azaspiracids from *Azadinium spinosum*. *J. Nat. Prod.* 77 (11) 2465–2474. **(Equipe 1)**

Kilcoyne J., Jauffrais T., Twiner M.J., Doucette G.J., Aasen J.A.B., Sosa S., Krock B., Séchet V., Nulty C., Salas R., Clarke D., Geraghty J., Duffy C., Foley B., John U., Quilliam M.A., McCarron P., Miles C.O., Silke J., Cembella A., Tillmann U., Hess P. (2014) Azaspiracids – Toxicological Evaluation, Test Methods and the Source Organisms (ASTOX II). Final Project Report. Marine Institute, Galway, Ireland (ISSN: 2009-3195). <http://oar.marine.ie/handle/10793/970> **(Equipe 1)**

Réveillon D., Abadie E., Séchet V., Brient L., Savar V., Bardouil M., Hess P., Amzil Z. (2014) Beta-N-methylamino-L-alanine: LC-MS/MS optimization, screening of cyanobacterial strains and occurrence in shellfish from Thau, a French Mediterranean lagoon. *Mar. Drugs* 12 (11) 5441-5467. **(Equipe 1, 4)**

Zendong Z., Herrenknecht C., Abadie E., Brissard C., Tixier C., Mondeguer F., Séchet V., Amzil Z., Hess P. (2014) Extended evaluation of polymeric and lipophilic sorbents for passive sampling of marine toxins. *Toxicon* 91, 57-68. **(Equipes 1, 4)**

Roué, M., Gugger, M., Golubic, S., Amzil, Z., Aráoz, R., Turquet, J., Chinain, M., Laurent, D. (2014) Marine Cyanotoxins Potentially Harmful to Human Health, in: La Barre, S., Kornprobst, J.-M. (Eds.), *Outstanding Marine Molecules*. Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany, pp. 1-22. **(Equipes 1, 5, 6)**

2013

Biré, R., Trotereau, S., Lemée, R., Delpont, C., Chabot, B., Aumond, Y., Krys, S. (2013). Occurrence of palytoxins in marine organisms from different trophic levels of the French Mediterranean coast harvested in 2009. *Harmful Algae* 28, 10 - 22. **(Equipes 2, 7)**

Geiger M., Desanglois G., Hogeveen K., Fessard V., Leprêtre T., Mondeguer F., Guitton Y., Hervé F., Séchet V., Grovel O., Pouchus Y.F., Hess P. (2013) Cytotoxicity, fractionation and dereplication of extracts of the dinoflagellate *Vulcanodinium rugosum*, a producer of Pinnatoxin G. *Mar. Drugs* 11, 9, 3350-3371. **(Equipes 1, 3)**

Hess P., Abadie E., Hervé F., Berteaux T., Séchet V., Aráoz R., Molgó J., Zakarian A., Sibat M., Rundberget T., Miles C.O., Amzil Z. (2013) Pinnatoxin-G is responsible for atypical toxicity in mussels (*Mytilus galloprovincialis*) and clams (*Venerupis decussata*) from Ingril, a French Mediterranean lagoon. *Toxicon* 75, 16-26. **(Equipes 1, 4, 5)**

2012:

Amzil Z., Sibat M., Chomerat N., Grossel H., Marco-Miralles F., Lemee R., Nezan E., Sechet V. (2012). Ovatoxin-a and Palytoxin Accumulation in Seafood in Relation to *Ostreopsis* cf. *ovata* Blooms on the French Mediterranean Coast. *Marine Drugs*, 10(2), 477-496. **(Equipe 1, 7, 8)**

Hess P. (2012) Phytoplankton and biotoxin monitoring programmes for the safe exploitation of shellfish in Europe. Chapter 12 in "New Trends in Marine and Freshwater Toxins: Food Safety Concerns" (e-book), editors: Ana Garcia Cabado & Juan Manuel Vieites; Series: Advances in Food Safety and Food Microbiology (series editors: Dr. Anderson de Souza Sant'Ana and Dr. Bernadette D.G.M. Franco); NovaPublishers; ISBN: 978-1-61470-398-3. **(Equipe 1)**

Hess P., Amzil Z., Belin C., Compere C., Lassus P., Menesguen A. (2012) Evolution of European monitoring systems for shellfish toxins – an increased need for the surveillance of phytoplankton. Proceedings of the 14th Intl. Conference on Harmful Algae, 1 – 5 November 2010, Hersonissos, Crete. 4 pages. **(Equipe 1)**

Hess P., Herve F., Abadie E., Sechet V., Molgo J., Amzil Z., Fessard V. (2012). Pinnatoxines en lien avec l'espèce *Vulcanodinium rugosum*. Rapport de projet Pinnatoxines <http://archimer.ifremer.fr/doc/00094/20518/> **(Equipes 1, 3, 4, 5)**

Jauffrais T., Herrenknecht C., Séchet V., Sibat M., Tillmann U., Krock B., Kilcoyne J., Miles C.O., McCarron P., Amzil Z., Hess P. (2012) Quantitative analysis of azaspiracids in *Azadinium spinosum* cultures. *Anal. Bioanal. Chem* 403 833-846. **(Equipe 1)**

Jauffrais T., Kilcoyne J., Séchet V., Herrenknecht C., Truquet P., Bérard J.P., Taylor S., Nulty C., Tillmann U., Miles C.O., Hess P. (2012) Production and Isolation of Azaspiracid-1 and -2 from *Azadinium spinosum* Culture in Pilot Scale Photobioreactors. *Mar. Drugs* 10 1360-1382. **(Equipe 1)**

Kilcoyne J., Keogh A., Clancy G., LeBlanc P., Burton I., Quilliam M.A., Hess P. and Miles C.O. (2012) Improved isolation procedure for azaspiracids from shellfish, structural elucidation of azaspiracid-6 and stability studies. *J. Agric. Food Chem.* 60 2447-2455. **(Equipe 1)**

Ledreux, A., Sérandour, A.L., Morin, B., Derick, S., Lanceleur, R., Hamlaoui, S., Furger, C., Biré, R., Krys, S., Fessard, V., Troussellier, M., Bernard, C. (2012). Collaborative study for

the detection of toxic compounds in shellfish extracts using cell-based assays. Part II: application to shellfish extracts spiked with lipophilic marine toxins. *Analytical Bioanalytical Chemistry* 403(7), 1995-2007. **(Equipe 2)**

Mondeguer F., Antignac J.P., Guitton Y., Monteau F., LeBorgne S., Hess, P. (2012) Nouvelle stratégie de caractérisation non ciblée de type métabolomique au service de l'identification de composés bioactifs accumulés dans les mollusques bivalves. *Spectra Analyse* 284 (3) 24-33. **(Equipe 1)**

Sechet V., Sibat M., Chomerat N., Nezan E., Grosse H., Lehebel-Peron J.-B., Jauffrais T., Ganzin N., Marco-Miralles F., Lemee R., Amzil Z. (2012). *Ostreopsis cf. ovata* in the French Mediterranean coast: molecular characterisation and toxin profile. *Cryptogamie Algologie*, 33(2), 89-98. **(Equipes 1, 7, 8)**

Sérandour, A.L., Ledreux, A., Morin, B., Derick, S., Augier, E., Lanceleur, R., Hamlaoui, S., Moukha, S., Furger, C., Biré, R., Krys, S., Fessard, V., Troussellier, M., Bernard, C. (2012) Collaborative study for the detection of toxic compounds in shellfish extracts using cell-based assays. Part I: screening strategy and pre-validation study with lipophilic marine toxins. *Analytical Bioanalytical Chemistry* 403(7), 1983-1993. **(Equipes 2, 3)**