



Ministère des Affaires sociales, de la Santé et des Droits des femmes
Groupe de Travail spécial pour la Préservation des Antibiotiques

GROUPE 5 – ANTIBIOTIC RESISTANCE ET ENVIRONNEMENT ANNEXE 4

BIBLIOGRAPHIE SUCCINCTE

- **Faune:**

Hopwood, D. A. How do antibiotic-producing bacteria ensure their self-resistance before antibiotic biosynthesis incapacitates them? *Mol. Microbiol.* **63**, 937–940 (2007). <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2958.2006.05584.x/abstract>

Davies, J. & Davies, D. Origins and Evolution of Antibiotic Resistance. *Microbiol. Mol. Biol. Rev.* **74**, 417–433 (2010). <http://www.ncbi.nlm.nih.gov/pubmed/20805405>

Thaller, M. C. *et al.* Tracking acquired antibiotic resistance in commensal bacteria of Galápagos land iguanas: no man, no resistance. *PLoS ONE* **5**, e8989 (2010). <http://www.plosone.org/article/citationList.action?articleURL=info%3Adoi%2F10.1371/journal.pone.0008989>

Guenther, S. *et al.* Comparable high rates of extended-spectrum-beta-lactamase-producing *Escherichia coli* in birds of prey from Germany and Mongolia. *PLoS ONE* **7**, e53039 (2012). <http://www.plosone.org/article/citationList.action?articleURL=info%3Adoi%2F10.1371/journal.pone.0053039>

Taylor, N. G. H., Verner-Jeffreys, D. W. & Baker-Austin, C. Aquatic systems: maintaining, mixing and mobilising antimicrobial resistance? *Trends Ecol. Evol.* **26**, 278–284 (2011). [https://scholar.google.fr/scholar?q=Trends+Ecol.+Evol.+26,+278%2580%93284+\(2011\)&hl=en&as_sdt=0&as_vis=1&oi=scholart&sa=X&ei=cFxxVbSXJczaU4bFgJAJ&ved=OCB8QgQMwAA](https://scholar.google.fr/scholar?q=Trends+Ecol.+Evol.+26,+278%2580%93284+(2011)&hl=en&as_sdt=0&as_vis=1&oi=scholart&sa=X&ei=cFxxVbSXJczaU4bFgJAJ&ved=OCB8QgQMwAA)

- **Sols:**

Udikovic-Kolic N, Wichmann F, Broderick NA, Handelsman J. Bloom of resident antibiotic-resistant bacteria in soil following manure fertilization. *Proc Natl Acad Sci U S A.* 2014 Oct 21;111(42):15202-7. <http://www.pnas.org/content/111/42/15202.abstract>.

Zhu YG(1), Johnson TA, Su JQ, Qiao M, Guo GX, Stedtfeld RD, Hashsham SA, Tiedje JM. Diverse and abundant antibiotic resistance genes in Chinese swine farms. *Proc Natl Acad Sci U S A.* 2013 Feb 26;110(9):3435-40. <http://www.pnas.org/content/110/9/3435.abstract>. Epub 2013 Feb 11.

Forsberg KJ, Reyes A, Wang B, Selleck EM, Sommer MO, Dantas G. The shared antibiotic resistome of soil bacteria and human pathogens. *Science.* 2012 Aug 31;337(6098):1107-11. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4070369/>

- **Eaux et milieux aquatiques:**

AFSSA: Analyse des mécanismes qui aboutissent à la présence de bactéries antibiorésistantes dans les eaux - éléments d'évaluation des risques (Juillet 2006) <https://www.anses.fr/sites/default/files/documents/EAUX2003sa031Ra.pdf>

Stalder T, Barraud O, Jové T, Casellas M, Gaschet M, Dagot C, Ploy MC. Quantitative and qualitative impact of hospital effluent on dissemination of the integron pool. ISME J. (2014) Apr; 8(4): 768-77.

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3960533/>

Xu J, Xu Y, Wang H, Guo C, Qiu H, He Y, Zhang Y, Li X, Meng W. Occurrence of antibiotics and antibiotic resistance genes in a sewage treatment plant and its effluent-receiving river. Chemosphere 119 (2015) 1379–1385.

https://www.researchgate.net/publication/260839911_Occurrence_of_antibiotics_and_antibiotic_resistance_genes_in_a_sewage_treatment_plant_and_its_effluent-receiving_river

Michael I., Rizzo L., McArdell C., Manaia C., Merlin C., Schwartz T., Dagot C., Fatta Kassinos D.C. Urban wastewater treatment plants as hotspots for the release of antibiotics in the environment: A review. Water Sciences, 47, Issue 3, , Pages 957–995, (2013)

<http://www.ncbi.nlm.nih.gov/pubmed/23266388>

Rizzo L., Manaia C., Merlin C., Schwartz T., Dagot C., Ploy M.C., Fatta Kassinos D.C. Urban wastewater treatment plants as hotspots for antibiotic resistant bacteria and genes spread into the environment A review. STOTEN, 447, 345-360 (2013)

www.ncbi.nlm.nih.gov/pubmed/23396083

- **Métaux lourds:**

Seiler C, Berendkon TU. Heavy metal driven co-selection of antibiotic resistance in soil and water bodies impacted by agriculture and aquaculture. Front Microbiol. 2012 Dec 14;3:399. <http://journal.frontiersin.org/article/10.3389/fmicb.2012.00399/full>

Silveira E, Freitas AR, Antunes P, Barros M, Campos J, Coque TM, Peixe L, Novais C. Co-transfer of resistance to high concentrations of copper and first-line antibiotics among Enterococcus from different origins (humans, animals, the environment and foods) and clonal lineages. J Antimicrob Chemother. 2014 Apr;69(4):899-906.

<http://jac.oxfordjournals.org/content/early/2013/12/13/jac.dkt479>.

- **Indicateurs/intégrons:**

Berendkon TU, Manaia CM, Merlin C, Fatta-Kassinos D, Cytryn E, Walsh F, Bürgmann H, Sørum H, Norström M, Pons MN, Kreuzinger N, Huovinen P, Stefani S, Schwartz T, Kisand V, Baquero F, Martinez JL. Tackling antibiotic resistance: the environmental framework. Nat Rev Microbiol. 2015 May;13(5):310-7. www.ncbi.nlm.nih.gov/pubmed/25817583

Stalder T., Barraud O., Casellas M., Dagot C., Ploy M.C. Integron involvement in environmental spread of antibiotic resistance, Frontiers in Microbiology Antimicrobials, Resistance and Chemotherapy, 3, 119, 1-14, (2012) www.ncbi.nlm.nih.gov/pubmed/22509175

Gaze WH, Zhang L, Abdouslam NA, Hawkey PM, Calvo-Bado L, Royle J, Brown H, Davis S, Kay P, Boxall AB, Wellington EM. Impacts of anthropogenic activity on the ecology of class 1 integrons and integron-associated genes in the environment. ISME J. 2011 Aug;5(8):1253-61 <http://www.ncbi.nlm.nih.gov/pubmed/21368907>

Gillings MR, Gaze WH, Pruden A, Smalla K, Tiedje JM, Zhu YG. Using the class 1 integron-integrase gene as a proxy for anthropogenic pollution. ISME J. 2015 Jun;9(6):1269-79 <http://www.ncbi.nlm.nih.gov/pubmed/25500508>

- **Désinfectants/biocides:**

Commission Européenne, DG santé consommation, Scientific Committee on Emerging and Newly Identified Health Risks/ SCENIHR, assessment of the antibiotic resistance effects of biocides, 19-01-2009

http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_021.pdf

Commission Européenne, DG santé consommation, Scientific Committee on Emerging and Newly Identified Health Risks/ SCENIHR, research strategy to address the knowledge gaps on the antimicrobial resistance effects of biocides, 17-03-2010

http://ec.europa.eu/health/scientific_committees/emerging/docs/scenihr_o_028.pdf

- **Démarches institutionnelles:**

Agences européennes ECDC, EFSA et EMA :

http://www.ema.europa.eu/ema/index.jsp?curl=pages/regulation/document_listing/document_listing_000302.jsp

Plan présidentiel Etats-Unis : « National Action Plan for Combating Antibiotic-resistant Bacteria » The White House, Washington March 2015.

https://www.whitehouse.gov/sites/default/files/docs/national_action_plan_for_combating_antibiotic-resistant_bacteria.pdf

Synthèse Royaume Uni : « Review on Antimicrobial Resistance, tackling drug-resistance infections globally » chaired by Jill O'Neill, February 2015 : <http://amr-review.org/sites/default/files/Report-52.15.pdf>

Allemagne / stratégie de lutte contre la résistance aux antibiotiques / communiqué 13 mai 2015: <http://www.bulletins-electroniques.com/actualites/78505.htm>