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References:

1. Cayron, J. *et al.* Pushing the limits of nickel detection to nanomolar range using a set of engineered bioluminescent *Escherichia coli*. *Environmental Science and Pollution Research*. **24** (1), 4–14, doi: 10.1007/s11356-015-5580-6 (2017).
2. Rome, K. *et al.* The Two-Component System ZraPSR Is a Novel ESR that Contributes to Intrinsic Antibiotic Tolerance in *Escherichia coli*. *Journal of Molecular Biology*. **430** (24), 4971–4985, doi: 10.1016/j.jmb.2018.10.021 (2018).
3. Brutesco, C. *et al.* Bacterial host and reporter gene optimization for genetically encoded whole cell biosensors. *Environmental Science and Pollution Research*. **24** (1), 52–65, doi: 10.1007/s11356-016-6952-2 (2017).
4. Nolivos, S., Cayron, J., Dedieu, A., Page, A., Delolme, F., Lesterlin, C. Role of AcrAB-TolC multidrug efflux pump in drug-resistance acquisition by plasmid transfer. *Science*. **364** (6442), 778–782, doi: 10.1126/science.aav6390 (2019).