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## MORPHOLOGICAL AND BEHAVIOURAL ANALYSIS OF BMAA IN ZEBRAFISH LARVAE

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BMAA ( $\beta$ -N-methylamino-L-alanine) is a toxin produced mainly by cyanobacteria and the subject of several hypotheses suggesting a link with amyotrophic lateral sclerosis (ALS). It has historically been found in cycad roots, consumed in various ways by the Chamorros on the island of Guam, where an incidence of ALS much higher than the global average was detected. Other clusters have also been identified by the scientific community (Spencer *et al.*, 2019) and several studies have highlighted multiple mechanisms of toxicity of this molecule (Courtier *et al.*, 2022).

In France, in the Occitanie region, BMAA has been detected in the Thau lagoon in bivalves (Réveillon *et al.*, 2015) while its isomers have been found in water and/or air samples (Courtier thesis, 2022). Other global studies show the possible presence of this toxin in the environment at nanogram concentrations (Abbes *et al.*, 2022). As highlighted by the 2017 ANSES report, most of the toxicological studies have been developed at relatively high concentrations and investigations on the effects of environmental concentrations remain to be completed.

Keywords: BMAA; Zebrafish larvae; *Artemia salina*

