

Modulation of PAH toxicity on freshwater organisms by microparticles

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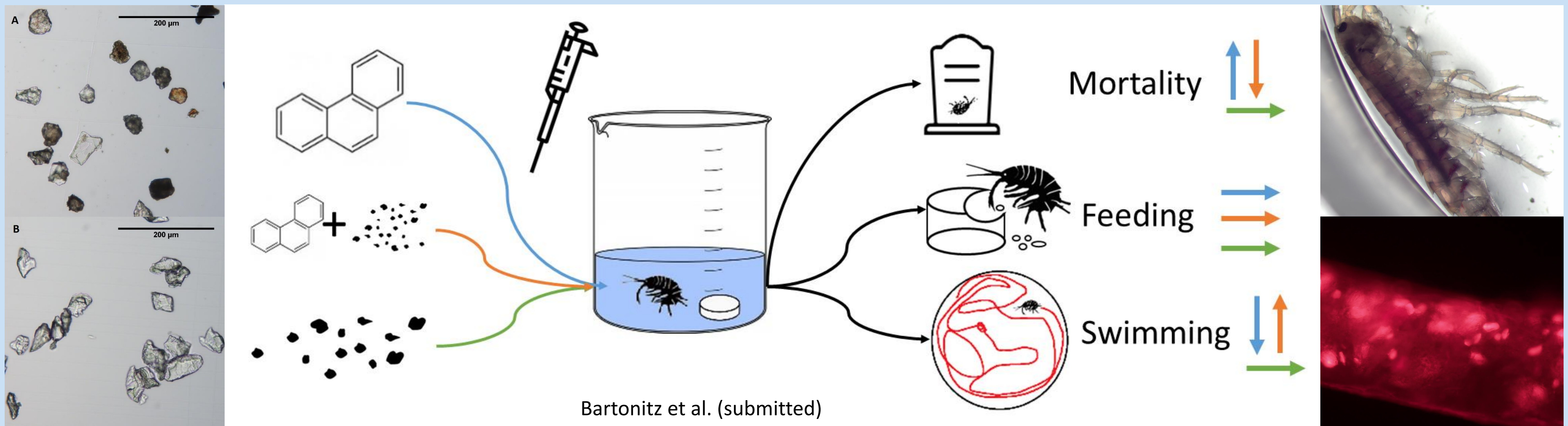
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The Why



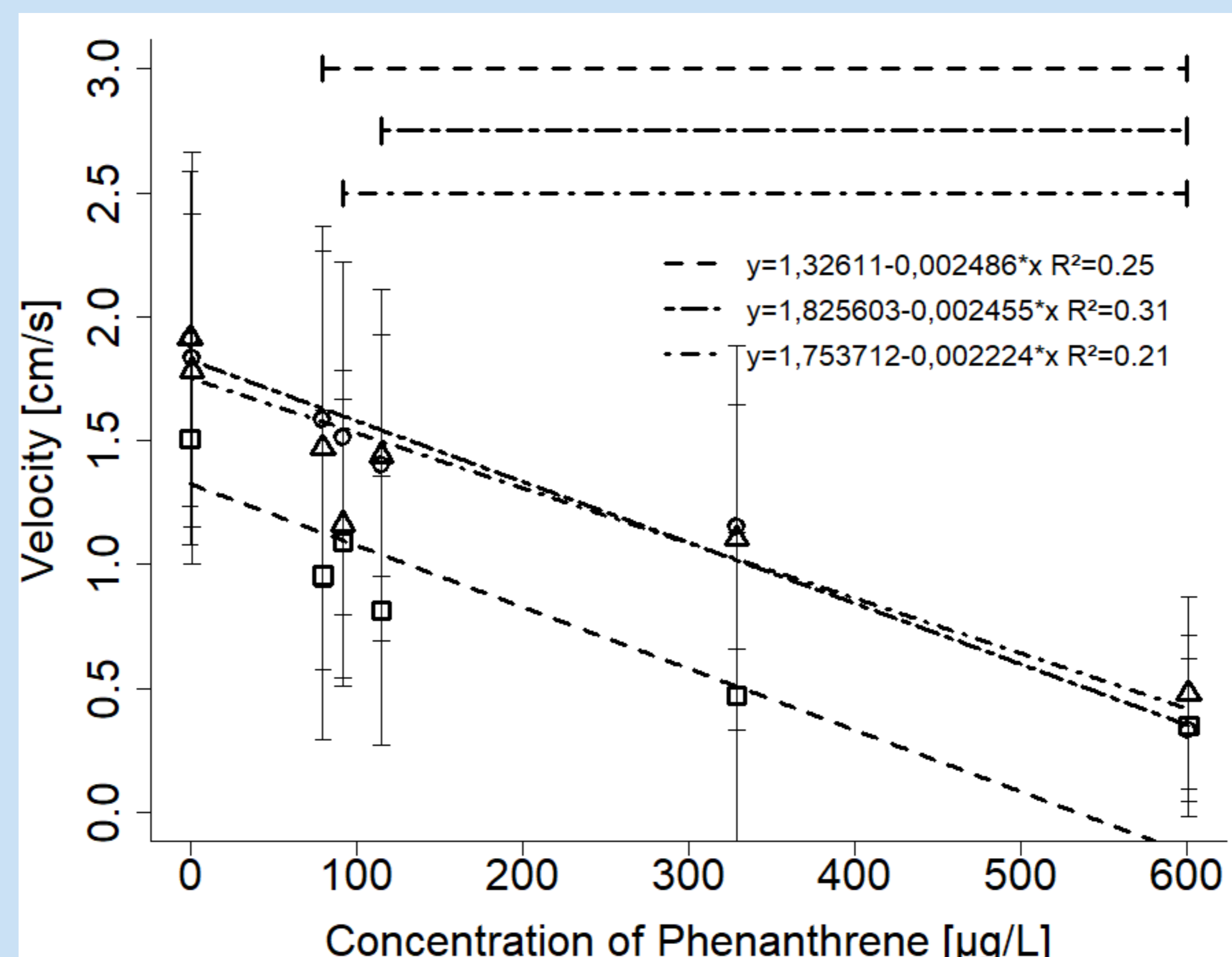
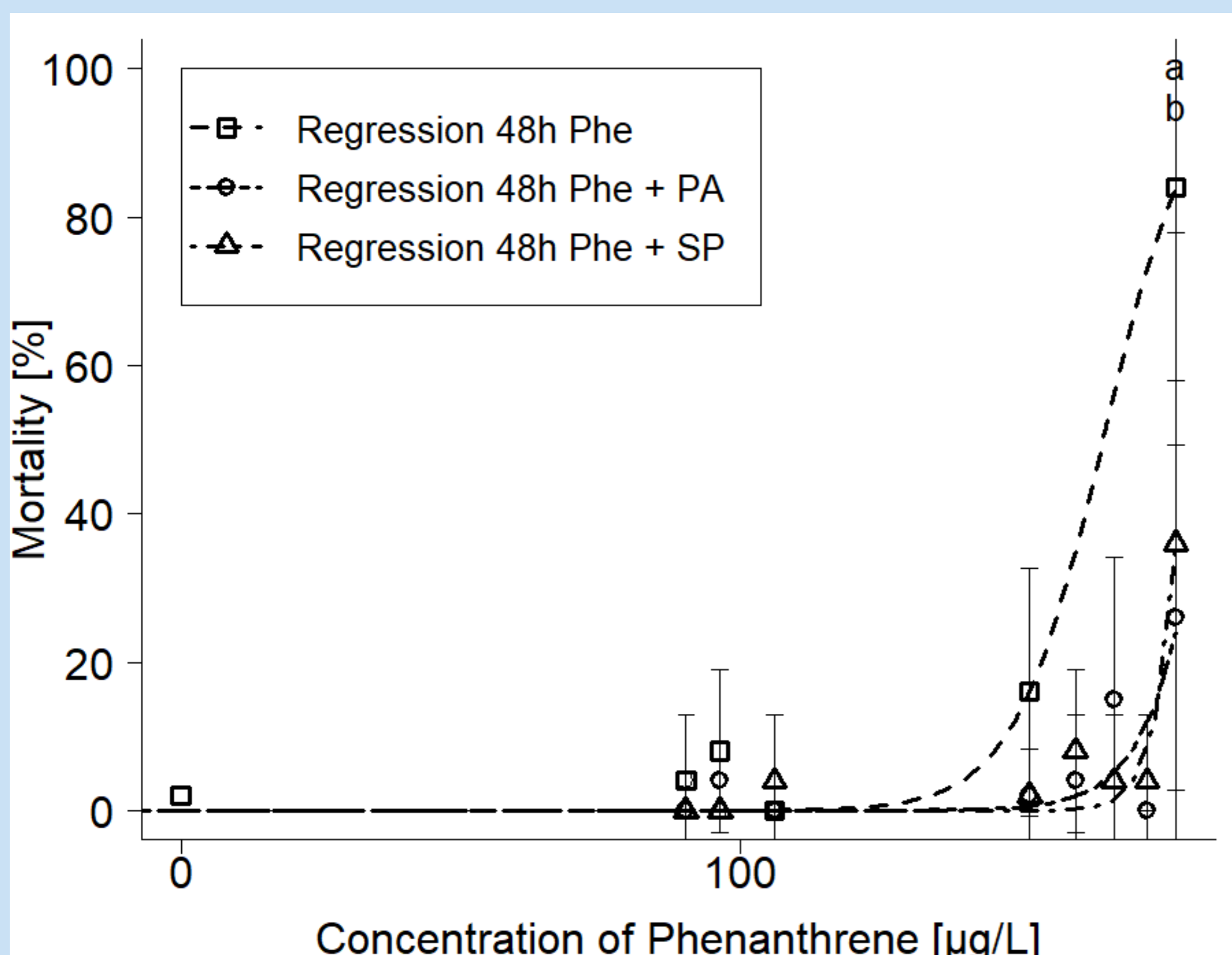
- PAHs are ubiquitous POPs
- PAHs are known to cause potential negative health effects
- PAHs are hydrophobic and therefore bind preferentially to particles
- Microparticles are also ubiquitous
- Microparticles have increasing surfaces in relation to size
- Microparticles are thought to bind and transport chemicals in the environment



The What

The PAH phenanthrene affects gammarids' survival and swimming behavior
 The microparticles of polyamid and sediment don't affect gammarids

The combination of phenanthrene and microparticle lowers the toxicity of phenanthrene
 phenanthrene adsorbes to microparticles
 modulation is independent of microparticle type



The small one

Figures: Mortality and velocity of gammarids after 48 h exposure with phenanthrene only and in combination with microparticles

