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Effects of Methamphetamine and its Primary Human Metabolite, *p*-Hydroxymethamphetamine, on the Development of the Australian Blow Fly, *Calliphora stygia*

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Abstract

The larvae of necrophagous fly species are used as forensic tools for the determination of the minimum postmortem interval (PMI). However, any ingested drugs in the corpses may affect larval development, thus leading to incorrect estimates of the period of infestation. This study investigated the effects of methamphetamine and its metabolite, *p*-hydroxymethamphetamine, on the forensically important Australian blowfly, *Calliphora stygia*. It was found that the presence of the drugs significantly accelerated larval growth and increased the size of all life stages. Furthermore, drug-exposed samples remained as pupae for up to 78 hours longer than