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| La sperimentazione animale ai fini scientifici è disciplinata dal DL n. 26 del 2014 (attuazione della direttiva 2010/63/UE) e riguarda l’impiego e la protezione di vertebrati e cefalopodi.  L’uso di modelli animali emergenti, ossia le specie per le quali, a oggi, si riconosce una minor complessità neurologica rispetto a quelle tutelate dalla normativa, è in continuo aumento e si configura sempre più come un valido esempio del “replacement” (Principio delle 3R).  Per questo la Commissione didattica UZI ha ritenuto utile creare un database di specie di invertebrati già in utilizzo o potenzialmente utilizzabili in vari settori della ricerca biomedica riportando, ove possibile, la bibliografia di riferimento. | | |
| [PB1] | (Ricerca di Base) Oncologia | *Drosophila melanogaster*  (Napoletano et al., 2017) |
| [PB2] | (Ricerca di base) Apparato cardiovascolare, sangue e sistema linfatico | *Drosophila melanogaster*  (Ugur et al., 2016)  *Pomacea canaliculata* |
| [PB3] | (Ricerca di Base) Sistema Nervoso | *Drosophila melanogaster*  (Napoletano et al., 2021)  *Tenebrio molitor*  (Breidbach, 1987)  *Armadillidium gestroi*  (Thompson et al., 1994)  *Armadillidium nasatum*  (Thompson et al., 1994)  *Armadillidium pallasii*  (Thompson et al., 1994)  *Porcellionides pruinosus*  (Thompson et al., 1994)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus*  *Pomacea canaliculata*  (Rivi et al., 2022)  *Aplysia californica*  (Mauelshagen et al., 1998) |
| [PB4] | (Ricerca di Base) Apparato Respiratorio | *Drosophila melanogaster*  (Ehrhardt et al., 2022) |
| [PB5] | (Ricerca di Base) Apparato gastrointestinale, compreso il fegato | *Drosophila melanogaster*  (Bertolio et al., 2019) |
| [PB6] | (Ricerca di Base) Sistema muscoloscheletrico | *Drosophila melanogaster*  (Avellaneda et al., 2021)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus* |
| [PB7] | (Ricerca di Base) Sistema Immunitario | *Drosophila melanogaster*  (Buchon et al., 2014)  *Tribolium castaneum*  *Tenebrio molitor*  (Vommaro et al.,2021)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus*  *Pomacea canaliculata*  (Bergamini et al., 2023) |
| [PB8] | (Ricerca di Base) Apparato urogenitale/riproduttivo | *Drosophila melanogaster*  (Napoletano et al., 2017)  *Tribolium castaneum*  (Vommaro et al., 2023)  *Pterostichus melas*  (Vommaro et al.,2022; Donato et al., 2021)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus* |
| [PB9] | (Ricerca di Base) Organi di senso (pelle, occhi e orecchie) | *Drosophila melanogaster*  (Dourlen et al., 2012)  *Tribolium castaneum*  (Giglio et al., 2022)  *Tenebrio molitor*  (Giglio et al., 2022)  *Pomacea canaliculata* |
| [PB10] | (Ricerca di Base) Sistema endocrino/metabolismo | *Drosophila melanogaster*  (Bertolio et al., 2019)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus* |
| [PB11] | (Ricerca di Base) Multiapparato | *Drosophila melanogaster*  (Napoletano et al., 2021)  *Pomacea canaliculata*  (Davison and Neiman 2021)  *Mytilus ssp*.  (Schmidt et al., 2014)  *Littorina littorea*  (Larade and Storey, 2009) |
| [PB12] | (Ricerca di Base) Etologia / comportamento animale / Biologia animale | *Drosophila melanogaster*  (Sokolowski, 2001)  *Tenebrio molitor*  (Carazo et al., 2012)  *Neocaridina davidi*  (Plichta et al., 2021)  *Procambarus clarkii*  (Dissegna et al., 2020)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus*  *Artemia* spp*.*  (Albano el al., 2021; Bergami et al., 2017; Rabjabi et al., 2015; Wang et al., 2019) |
| [PB13] | (Ricerca di Base) Altra ricerca di base | Tardigradi  (Giovannini, Boothby et al. 2022; Giovannini, Corsetto et al. 2022; Jönsson 2019; Kasianchuk et al, 2023; Schill et al., 2009)  *Artemia* spp*.*  (Albano el al., 2021; Bergami et al., 2017; Rabjabi et al., 2015; Wang et al., 2019) |
| [PB14] | (Ricerca di Base) Biologia dello sviluppo | *Drosophila melanogaster*  (Napoletano et al., 2017)  *Pomacea canaliculata*  (Bergamini et al., 2023)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus*  *Artemia* spp*.*  (Albano el al., 2021; Bergami et al., 2017; Rabjabi et al., 2015; Wang et al., 2019) |
| [PT21] | (Ricerca traslazionale e applicata) Tumori degli esseri umani | *Drosophila melanogaster*  (Perrimon et al., 2016) |
| [PT24] | (Ricerca traslazionale e applicata) Disturbi nervosi e mentali degli esseri umani | *Drosophila melanogaster*  (Narayanan and Rothenfluh, 2016) |
| [PT30] | (Ricerca traslazionale e applicata) Disturbi degli organi di senso degli esseri umani (pelle, occhi e orecchie) | *Drosophila melanogaster*  (Nitta and Sugie, 2022) |
| [PT31] | (Ricerca traslazionale e applicata) Disturbi endocrini/metabolici degli esseri umani | *Drosophila melanogaster*  (Moraes and Montagne, 2021)  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus* |
| [PT33] | (Ricerca traslazionale e applicata) Malattie e disturbi degli animali |  |
| [PT34] | (Ricerca traslazionale e applicata) Benessere degli animali | *Tenebrio molitor*  *Neocaridina davidi*  *Hippolyte inermis*  *Austropotamobius pallipes*  *Cherax albidus* |
| [PT37] | (Ricerca traslazionale e applicata) Tossicologia ed ecotossicologia (studi non previsti dalla normativa) | *Pomacea canaliculata*  *Littorina littorea*  (Larade and Storey, 2009)  *Tribolium castaneum*  *Tenebrio molitor* (Naccarato et al., 2023)  *Pterostichus melas* (Giglio et al., 2021; Aiello et al., 2022)  *Artemia* spp*.*  (Albano el al., 2021; Bergami et al., 2017; Rabjabi et al., 2015; Wang et al., 2019) |
| [PT38] | (Ricerca traslazionale e applicata) Alimentazione animale | *Hippolyte inermis* |

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