**Table S1.** Complete search strategy with search filters and numbers of studies retrieved in the PubMed-Medline and Scopus databases.

|  |  |
| --- | --- |
| ***PubMed-MEDLINE – Search filters*** | ***Retrieved***  ***records*** |
| **#1 Trypanosomiasis:**  ("chagas disease"[MeSH Terms] OR "trypanosomiasis, african"[MeSH Terms] OR "trypanosomiasis"[MeSH Terms] OR "trypanosoma"[MeSH Terms] OR “Trypanosoma cruzi”[MeSH Terms] OR “African sleeping sickness”[MeSH Terms] OR “African sleeping sicknesses”[MeSH Terms] OR “Trypanosoma brucei”[MeSH Terms] OR “Trypanosoma gambiense”[MeSH Terms] OR “Trypanosoma rhodesiense”[MeSH Terms] OR “African trypanosomiases”[MeSH Terms] OR "chagas disease"[TIAB] OR "trypanosomiasis, african"[TIAB] OR "Trypanosomiasis"[TIAB] OR "Trypanosoma"[TIAB]) OR “American trypanosomiasis”[TIAB] OR “Trypanosoma cruzi”[TIAB] OR “African sleeping sickness”[TIAB] OR “African sleeping sicknesses”[TIAB] OR “Trypanosoma brucei”[TIAB] OR “Trypanosoma gambiense”[TIAB] OR “Trypanosoma rhodesiense”[TIAB] OR “African trypanosomiases”[TIAB]) | 37556 |
| **#2 Nervous system**  ("nervous system"[MeSH Terms] OR "central nervous system"[MeSH Terms] OR "peripheral nervous system"[MeSH Terms] OR "brain"[MeSH Terms] OR "spinal cord"[MeSH Terms] OR "nerve fibers"[MeSH Terms] OR "neurons"[MeSH Terms] OR "axons"[MeSH Terms] OR "dendrites"[MeSH Terms] OR "neuroglia"[MeSH Terms] OR "ependymoglial cells"[MeSH Terms] OR "autonomic nervous system"[MeSH Terms] OR "autonomic pathways"[MeSH Terms] OR "enteric nervous system"[MeSH Terms] OR "ganglia, autonomic"[MeSH Terms] OR "parasympathetic nervous system"[MeSH Terms] OR "sympathetic nervous system"[MeSH Terms] OR "nervous system"[TIAB] OR "central nervous system"[TIAB] OR "peripheral nervous system"[TIAB] OR "brain"[TIAB] OR "spinal cord"[TIAB] OR "nerve fibers"[TIAB] OR "neurons"[TIAB] OR "axons"[TIAB] OR "dendrites"[TIAB] OR "neuroglia"[TIAB] OR glial cells[TIAB] OR "ependymoglial cells"[TIAB] OR Ependymoglial Cells[TIAB] OR "autonomic nervous system"[TIAB] OR "autonomic pathways"[TIAB] OR "enteric nervous system"[TIAB] OR "ganglia, autonomic"[TIAB] OR "parasympathetic nervous system"[TIAB] OR "sympathetic nervous system"[TIAB]) | 2273122 |
| **#3 Mammals filter:**  ("mammals"[MeSH Terms] OR "opossums"[MeSH Terms] OR "insectivora"[MeSH Terms] OR "marsupialia"[MeSH Terms] OR "monotremata"[MeSH Terms] OR "dogs"[MeSH Terms] OR "cats"[MeSH Terms] OR "cattle"[MeSH Terms] OR "livestock"[MeSH Terms] OR "goats"[MeSH Terms] OR "sheep, domestic"[MeSH Terms] OR "horses"[MeSH Terms] OR "ruminants"[MeSH Terms] OR "shrews"[MeSH Terms] OR "arvicolinae"[MeSH Terms] OR "elephants"[MeSH Terms] OR "hyraxes"[MeSH Terms] OR "trichechus"[MeSH Terms] OR "proboscidea mammal"[MeSH Terms] OR "sirenia"[MeSH Terms] OR "sloths"[MeSH Terms] OR "xenarthra"[MeSH Terms] OR "armadillos"[MeSH Terms] OR "tupaiidae"[MeSH Terms] OR "scandentia"[MeSH Terms] OR "lemur"[MeSH Terms] OR "primates"[MeSH Terms] OR "hominidae"[MeSH Terms] OR "pongo"[MeSH Terms] OR "pan troglodytes"[MeSH Terms] OR "pan paniscus"[MeSH Terms] OR "gorilla gorilla"[MeSH Terms] OR "haplorhini"[MeSH Terms] OR "hares"[MeSH Terms] OR "lagomorpha"[MeSH Terms] OR "rabbits"[MeSH Terms] OR "rodentia"[MeSH Terms OR "mice"[MeSH Terms] OR "rats"[MeSH Terms] OR "moles"[MeSH Terms] OR "hedgehogs"[MeSH Terms] OR "whales"[MeSH Terms] OR "cetacea"[MeSH Terms] OR "dolphins"[MeSH Terms] OR "artiodactyla"[MeSH Terms] OR "swine"[MeSH Terms] OR "camels"[MeSH Terms] OR "giraffes"[MeSH Terms] OR "deer"[MeSH Terms] OR "antelopes"[MeSH Terms] OR "equidae"[MeSH Terms] OR "perissodactyla"[MeSH Terms] OR "chiroptera"[MeSH Terms] OR "carnivora"[MeSH Terms] OR "ursidae"[MeSH Terms] OR "procyonidae"[MeSH Terms] OR "raccoons"[MeSH Terms] OR "mephitidae"[MeSH Terms] OR "mustelidae"[MeSH Terms] OR "pinnipedia"[MeSH Terms] OR "strepsirhini"[MeSH Terms] OR "hylobatidae"[MeSH Terms] OR "cricetinae"[MeSH Terms] OR "mammals"[TIAB] OR "opossums"[TIAB] OR "insectivora"[TIAB] OR "marsupialia"[TIAB] OR "monotremata"[TIAB] OR "dogs"[TIAB] OR "cats"[TIAB] OR "cattle"[TIAB] OR "livestock"[TIAB] OR "goats"[TIAB] OR "sheep, domestic"[TIAB] OR "horses"[TIAB] OR "ruminants"[TIAB] OR "shrews"[TIAB] OR "arvicolinae"[TIAB] OR "elephants"[TIAB] OR "hyraxes"[TIAB] OR "trichechus"[TIAB] OR "proboscidea mammal"[TIAB] OR "sirenia"[TIAB] OR "sloths"[TIAB] OR "xenarthra"[TIAB] OR "armadillos"[TIAB] OR "tupaiidae"[TIAB] OR "scandentia"[TIAB] OR "lemur"[TIAB] OR "primates"[TIAB] OR "hominidae"[TIAB] OR "pongo"[TIAB] OR "pan troglodytes"[TIAB] OR "pan paniscus"[TIAB] OR "gorilla gorilla"[TIAB] OR "haplorhini"[TIAB] OR "hares"[TIAB] OR "lagomorpha"[TIAB] OR "rabbits"[TIAB] OR "rodentia"[TIAB OR "mice"[TIAB] OR "rats"[TIAB] OR "moles"[TIAB] OR "hedgehogs"[TIAB] OR "whales"[TIAB] OR "cetacea"[TIAB] OR "dolphins"[TIAB] OR "artiodactyla"[TIAB] OR "swine"[TIAB] OR "camels"[TIAB] OR "giraffes"[TIAB] OR "deer"[TIAB] OR "antelopes"[TIAB] OR "equidae"[TIAB] OR "perissodactyla"[TIAB] OR "chiroptera"[TIAB] OR "carnivora"[TIAB] OR "ursidae"[TIAB] OR "procyonidae"[TIAB] OR "raccoons"[TIAB] OR "mephitidae"[TIAB] OR "mustelidae"[TIAB] OR "pinnipedia"[TIAB] OR "strepsirhini"[TIAB] OR "hylobatidae"[TIAB] OR "cricetinae"[TIAB] OR "pig"[TIAB] OR "bat"[TIAB] OR "monkey"[TIAB] OR "bitch"[TIAB] OR "hamster"[TIAB] OR "coati"[TIAB]) | 1719135 |
| **Combined search: (**#1 AND #2 AND #3) | 388 |
| **SCOPUS *– Search filters*** | ***Retrieved***  ***records*** |
| **#1 Nervous system**  (TITLE-ABS-KEY(“nervous system”) OR TITLE-ABS-KEY(“central nervous system”) OR TITLE-ABS-KEY(“peripheral nervous system”) OR TITLE-ABS-KEY(“brain”) OR TITLE-ABS-KEY(“spinal cord”) OR TITLE-ABS-KEY(“nerve fibers”) OR TITLE-ABS-KEY(“neurons”) OR TITLE-ABS-KEY(“axons”) OR TITLE-ABS-KEY(“dendrites”) OR TITLE-ABS-KEY(“neuroglia”) OR TITLE-ABS-KEY(“ependymoglial cells”) OR TITLE-ABS-KEY(“autonomic nervous system”) OR TITLE-ABS-KEY(“autonomic pathways”) OR TITLE-ABS-KEY(“enteric nervous system”) OR TITLE-ABS-KEY(“ganglia, autonomic”) OR TITLE-ABS-KEY(“parasympathetic nervous system”) OR TITLE-ABS-KEY(“sympathetic nervous system”)) | 3075367 |
| **#2 Trypanosomiasis**  (TITLE-ABS-KEY("chagas disease") OR TITLE-ABS-KEY("trypanosomiasis, african") OR TITLE-ABS-KEY("trypanosomiasis") OR TITLE-ABS-KEY("trypanosoma") OR TITLE-ABS-KEY(“Trypanosoma cruzi”) OR TITLE-ABS-KEY(“African sleeping sickness”) OR TITLE-ABS-KEY(“African sleeping sicknesses”) OR TITLE-ABS-KEY(“Trypanosoma brucei”) OR TITLE-ABS-KEY(“Trypanosoma gambiense”) OR TITLE-ABS-KEY(“Trypanosoma rhodesiense”) OR TITLE-ABS-KEY(“African trypanosomiases”)) | 46528 |
| **Combined search:** #1 AND #2 | 2310 |
| ***Search limits:*** *animals [limit to]* | 737 |