

The followings are separate search strategies for each database:

PubMed/Medline

No.	Component	Terms
1	Burrowing	burrow*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
AND	AND	AND
2	Pain	“pain”[Mesh] OR "hyperalgesia"[Mesh] OR pain[tiab] OR analgesia[tiab] OR analgesic[tiab] OR analgesics[tiab] OR allodynia[tiab] OR neuralgia[tiab] OR hypersensitivity[tiab] OR hyperalgesia[tiab] OR hyperalgesic[tiab] OR antinociception[tiab] OR anti-nociception[tiab] OR hypoalgesia[tiab] OR hypoalgesic[tiab] OR anti-hyperalgesia[tiab] OR antihyperalgesia[tiab] OR antihyperalgesic[tiab] anti-hyperalgesic[tiab] OR anti-allodynic[tiab] OR antiallodynic[tiab] OR anti-allodynia[tiab] OR antiallodynia[tiab] OR spinal cord injury[tiab] OR nerve injury[tiab] OR nerve injuries[tiab] OR nerve transection[tiab] OR nerve ligation[tiab] OR neuropathy[tiab] OR peripheral neuropathy[tiab] OR polyneuropathy[tiab] OR neuropathic[tiab] OR headache[tiab] OR headache-like[tiab] OR migraine[tiab] OR migraine like[tiab] OR arthritis[tiab] OR osteoarthritis[tiab] OR rheumatoid arthritis[tiab] OR colitis[tiab]
AND	AND	AND
3	Animal filters	(“animal experimentation”[MeSH Terms] OR “models, animal”[MeSH Terms] OR “invertebrates”[MeSH Terms] OR “Animals”[Mesh:noexp] OR “animal population groups”[MeSH Terms] OR “chordata”[MeSH Terms:noexp] OR “chordata, nonvertebrate”[MeSH Terms] OR “vertebrates”[MeSH Terms:noexp] OR “amphibians”[MeSH Terms] OR “birds”[MeSH Terms] OR “fishes”[MeSH Terms] OR “reptiles”[MeSH Terms] OR “mammals”[MeSH Terms:noexp] OR “primates”[MeSH Terms:noexp] OR “artiodactyla”[MeSH Terms] OR “carnivora”[MeSH Terms] OR “cetacea”[MeSH Terms] OR “chiroptera”[MeSH Terms] OR “elephants”[MeSH Terms] OR “hyraxes”[MeSH Terms] OR “insectivora”[MeSH Terms] OR “lagomorpha”[MeSH Terms] OR “marsupialia”[MeSH Terms] OR “monotremata”[MeSH Terms] OR “perissodactyla”[MeSH Terms] OR “rodentia”[MeSH Terms] OR “scandentia”[MeSH Terms] OR “sirenia”[MeSH Terms] OR “xenarthra”[MeSH Terms] OR “haplorhini”[MeSH Terms:noexp] OR “strepsirhini”[MeSH Terms] OR “platyrrhini”[MeSH Terms] OR “tarsii”[MeSH Terms] OR “catarrhini”[MeSH Terms:noexp] OR “cercopithecidae”[MeSH Terms] OR “hylobatidae”[MeSH Terms] OR “hominidae”[MeSH Terms:noexp] OR “gorilla gorilla”[MeSH Terms] OR “pan paniscus”[MeSH Terms] OR “pan troglodytes”[MeSH Terms] OR “pongo pygmaeus”[MeSH Terms]) OR ((animals[tiab] OR animal[tiab] OR mice[Tiab] OR mus[Tiab] OR mouse[Tiab] OR murine[Tiab] OR woodmouse[tiab] OR rats[Tiab] OR rat[Tiab] OR murinae[Tiab] OR muridae[Tiab] OR cottonrat[tiab] OR cottonrats[tiab] OR hamster[tiab] OR hamsters[tiab] OR cricetinae[tiab] OR rodentia[Tiab] OR rodent[Tiab] OR rodents[Tiab] OR pigs[Tiab] OR pig[Tiab] OR swine[tiab] OR swines[tiab] OR piglets[tiab] OR piglet[tiab] OR boar[tiab] OR boars[tiab] OR “sus scrofa”[tiab] OR ferrets[tiab] OR ferret[tiab] OR polecat[tiab] OR polecats[tiab] OR “mustela putorius”[tiab] OR “guinea pigs”[Tiab] OR “guinea pig”[Tiab] OR cavia[Tiab] OR callithrix[Tiab] OR marmoset[Tiab] OR marmosets[Tiab] OR cebuella[Tiab] OR hapale[Tiab] OR octodon[Tiab] OR chinchilla[Tiab] OR chinchillas[Tiab] OR gerbillinae[Tiab] OR gerbil[Tiab] OR gerbils[Tiab] OR jird[Tiab] OR jirds[Tiab] OR merione[Tiab] OR meriones[Tiab] OR rabbits[Tiab] OR rabbit[Tiab] OR hares[Tiab] OR hare[Tiab] OR diptera[Tiab])

	OR flies[Tiab] OR fly[Tiab] OR dipteral[Tiab] OR drosophila[Tiab] OR drosophilidae[Tiab] OR cats[Tiab] OR cat[Tiab] OR carus[Tiab] OR felis[Tiab] OR nematoda[Tiab] OR nematode[Tiab] OR nematodes[Tiab] OR sipunculida[Tiab] OR dogs[Tiab] OR dog[Tiab] OR canine[Tiab] OR canines[Tiab] OR canis[Tiab] OR sheep[Tiab] OR sheeps[Tiab] OR mouflon[Tiab] OR mouflons[Tiab] OR ovis[Tiab] OR goats[Tiab] OR goat[Tiab] OR capra[Tiab] OR capras[Tiab] OR rupicapra[Tiab] OR rupicapras[Tiab] OR chamois[Tiab] OR haplorhini[Tiab] OR monkey[Tiab] OR monkeys[Tiab] OR anthropoidea[Tiab] OR anthropoids[Tiab] OR saguinus[Tiab] OR tamarin[Tiab] OR tamarins[Tiab] OR leontopithecus[Tiab] OR hominidae[Tiab] OR ape[Tiab] OR apes[Tiab] OR “pan paniscus”[Tiab] OR bonobo[Tiab] OR bonobos[Tiab] OR “pan troglodytes”[Tiab] OR gibbon[Tiab] OR gibbons[Tiab] OR siamang[Tiab] OR siamangs[Tiab] OR nomascus[Tiab] OR symphalangus[Tiab] OR chimpanzee[Tiab] OR chimpanzees[Tiab] OR prosimian[Tiab] OR prosimians[Tiab] OR “bush baby”[Tiab] OR bush babies[Tiab] OR galagos[Tiab] OR galago[Tiab] OR pongidae[Tiab] OR gorilla[Tiab] OR gorillas[Tiab] OR “pongo pygmaeus”[Tiab] OR orangutan[Tiab] OR orangutans[Tiab] OR lemur[Tiab] OR lemurs[Tiab] OR lemuriidae[Tiab] OR horse[Tiab] OR horses[Tiab] OR equus[Tiab] OR cow[Tiab] OR calf[Tiab] OR bull[Tiab] OR chicken[Tiab] OR chickens[Tiab] OR gallus[Tiab] OR quail[Tiab] OR bird[Tiab] OR birds[Tiab] OR quails[Tiab] OR poultry[Tiab] OR poultries[Tiab] OR fowl[Tiab] OR fowls[Tiab] OR reptile[Tiab] OR reptilia[Tiab] OR reptiles[Tiab] OR snakes[Tiab] OR snake[Tiab] OR lizard[Tiab] OR lizards[Tiab] OR alligator[Tiab] OR alligators[Tiab] OR crocodile[Tiab] OR crocodiles[Tiab] OR turtle[Tiab] OR turtles[Tiab] OR amphibian[Tiab] OR amphibians[Tiab] OR amphibia[Tiab] OR frog[Tiab] OR frogs[Tiab] OR bombina[Tiab] OR salientia[Tiab] OR toad[Tiab] OR toads[Tiab] OR “epidalea calamita”[Tiab] OR salamander[Tiab] OR salamanders[Tiab] OR eel[Tiab] OR eels[Tiab] OR fish[Tiab] OR fishes[Tiab] OR pisces[Tiab] OR catfish[Tiab] OR catfishes[Tiab] OR siluriformes[Tiab] OR arius[Tiab] OR heteropneustes[Tiab] OR sheatfish[Tiab] OR perch[Tiab] OR perches[Tiab] OR percidae[Tiab] OR perca[Tiab] OR trout[Tiab] OR trouts[Tiab] OR char[Tiab] OR chars[Tiab] OR salvelinus[Tiab] OR minnow[Tiab] OR cyprinidae[Tiab] OR carps[Tiab] OR carp[Tiab] OR zebrafish[Tiab] OR zebrafishes[Tiab] OR goldfish[Tiab] OR goldfishes[Tiab] OR guppy[Tiab] OR guppies[Tiab] OR chub[Tiab] OR chubs[Tiab] OR tinca[Tiab] OR barbels[Tiab] OR barbus[Tiab] OR pimephales[Tiab] OR promelas[Tiab] OR “poecilia reticulata”[Tiab] OR mullet[Tiab] OR mullets[Tiab] OR eel[Tiab] OR eels[Tiab] OR seahorse[Tiab] OR seahorses[Tiab] OR mugil curema[Tiab] OR atlantic cod[Tiab] OR shark[Tiab] OR sharks[Tiab] OR catshark[Tiab] OR anguilla[Tiab] OR salmonid[Tiab] OR salmonids[Tiab] OR whitefish[Tiab] OR whitefishes[Tiab] OR salmon[Tiab] OR salmons[Tiab] OR sole[Tiab] OR solea[Tiab] OR lamprey[Tiab] OR lampreys[Tiab] OR pumpkinseed[Tiab] OR sunfish[Tiab] OR sunfishes[Tiab] OR tilapia[Tiab] OR tilapias[Tiab] OR turbot[Tiab] OR turbots[Tiab] OR flatfish[Tiab] OR flatfishes[Tiab] OR sciuridae[Tiab] OR squirrel[Tiab] OR squirrels[Tiab] OR chipmunk[Tiab] OR chipmunks[Tiab] OR suslik[Tiab] OR susliks[Tiab] OR vole[Tiab] OR voles[Tiab] OR lemming[Tiab] OR lemmings[Tiab] OR muskrat[Tiab] OR muskrats[Tiab] OR lemmus[Tiab] OR otter[Tiab] OR otters[Tiab] OR marten[Tiab] OR martens[Tiab] OR martes[Tiab] OR weasel[Tiab] OR badger[Tiab] OR badgers[Tiab] OR ermine[Tiab] OR mink[Tiab] OR minks[Tiab] OR sable[Tiab] OR sables[Tiab] OR gulo[Tiab] OR gulos[Tiab] OR wolverine[Tiab] OR wolverines[Tiab] OR mustela[Tiab] OR llama[Tiab] OR llamas[Tiab] OR alpaca[Tiab] OR alpacas[Tiab] OR camelid[Tiab] OR camelids[Tiab] OR guanaco[Tiab] OR guanacos[Tiab] OR chiroptera[Tiab] OR chiropteras[Tiab] OR bat[Tiab] OR bats[Tiab] OR fox[Tiab] OR foxes[Tiab] OR iguana[Tiab] OR iguanas[Tiab] OR xenopus laevis[Tiab] OR parakeet[Tiab] OR parakeets[Tiab] OR parrot[Tiab] OR parrots[Tiab] OR donkey[Tiab] OR donkeys[Tiab] OR mule[Tiab] OR mules[Tiab] OR zebra[Tiab] OR zebras[Tiab] OR shrew[Tiab] OR shrews[Tiab] OR bison[Tiab] OR bisons[Tiab] OR buffalo[Tiab] OR buffaloes[Tiab] OR deer[Tiab] OR deers[Tiab] OR bear[Tiab] OR bears[Tiab] OR panda[Tiab] OR pandas[Tiab] OR “wild hog”[Tiab] OR “wild boar”[Tiab] OR fitchew[Tiab] OR fitch[Tiab] OR beaver[Tiab] OR beavers[Tiab] OR jerboa[Tiab] OR jerboas[Tiab]
--	---

		OR capybara[Tiab] OR capybaras[Tiab] OR canine [tiab] OR bovine [tiab] OR porcine [tiab] OR hog [tiab] OR hogs [tiab]) NOT medline[sb])
--	--	---

Embase (via Ovid)

No.	Component	Terms
1	Burrowing	burrow*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
AND	AND	AND
2	Pain	pain OR hyperalgesia OR pain OR analgesia OR analgesic OR analgesics OR allodynia OR neuralgia OR hypersensitivity OR hyperalgesia OR hyperalgesic OR antinociception OR anti-nociception OR hypoalgesia OR hypoalgesic OR anti-hyperalgesia OR antihyperalgesia OR antihyperalgesic OR anti-hyperalgesic OR anti-allodynic OR antiallodynic OR anti-allodynia OR antiallodynia OR spinal cord injury OR nerve injury OR nerve injuries OR nerve transection OR nerve ligation OR neuropathy OR peripheral neuropathy OR polyneuropathy OR neuropathic OR headache OR headache-like OR migraine OR migraine like OR arthritis OR osteoarthritis OR rheumatoid arthritis OR colitis
AND	AND	AND
3	Animal filters	exp animal experiment/ or exp animal model/ or exp experimental animal/ or exp transgenic animal/ or exp male animal/ or exp female animal/ or exp juvenile animal/ or animal/ or chordata/ or vertebrate/ or tetrapod/ or exp fish/ or amniote/ or exp amphibia/ or mammal/ or exp reptile/ or exp saurosid/ or therian/ or exp monotremate/ or placental mammals/ or exp marsupial/ or Euarchontoglires/ or exp Afrotheria/ or exp Boreoeutheria/ or exp Laurasiatheria/ or exp Xenarthra/ or primate/ or exp Dermoptera/ or exp Glires/ or exp Scandentia/ or Haplorhini/ or exp prosimian/ or simian/ or exp tarsiiiform/ or Catarrhini/ or exp Platyrrhini/ or ape/ or exp Cercopithecidae/ or hominid/ or exp hylobatidae/ or exp chimpanzee/ or exp gorilla/ or exp orang utan/ or (animal or animals or pisces or fish or fishes or catfish or catfishes or sheatfish or silurus or arius or heteropneustes or clarias or gariepinus or fathead minnow or fathead minnows or pimephales or promelas or cichlidae or trout or trouts or char or chars or salvelinus or salmo or oncorhynchus or guppy or guppies or millionfish or poecilia or goldfish or goldfishes or carassius or auratus or mullet or mullets or mugil or curema or shark or sharks or cod or cods or gadus or morhua or carp or carps or cyprinus or carpio or killifish or eel or eels or anguilla or zander or sander or lucioperca or stizostedion or turbot or turbot or psetta or flatfish or flatfishes or plaice or pleuronectes or platessa or tilapia or tilapias or oreochromis or sarotherodon or common sole or dover sole or solea or zebrafish or zebrafishes or danio or rerio or seabass or dicentrarchus or labrax or morone or lamprey or lampreys or petromyzon or pumpkinseed or pumpkinseeds or lepomis or gibbosus or herring or clupea or harengus or amphibia or amphibian or amphibians or anura or salientia or frog or frogs or rana or toad or toads or bufo or xenopus or laevis or bombina or epidalea or calamita or salamander or salamanders or newt or newts or triturus or reptilia or reptile or reptiles or bearded dragon or pogona or vitticeps or iguana or iguanas or lizard or lizards or anguis fragilis or turtle or turtles or snakes or snake or aves or bird or birds or quail or quails or coturnix or bobwhite or colinus or virginianus or poultry or poultries or fowl or fowls or chicken or chickens or gallus or zebra finch or taeniopygia or guttata or canary or canaries or serinus or canaria or parakeet or parakeets or grasskeet or parrot or parrots or psittacine or psittacines or shelduck or tadorna or goose or geese or branta or leucopsis or woodlark or lullula or flycatcher or ficedula or hypoleuca or dove or doves or geopelia or cuneata or duck or ducks or greylag or graylag or anser or harrier or circus pygargus or red knot or great knot or calidris or canutus or godwit or limosa or lapponica or meleagris or gallopavo or jackdaw or corvus or monedula or ruff or philomachus or pugnax or lapwing or peewit or plover or vanellus or swan or cygnus or columbianus or

		bewickii or gull or chroicocephalus or ridibundus or albifrons or great tit or parus or aythya or fuligula or streptopelia or risoria or spoonbill or platalea or leucorodia or blackbird or turdus or merula or blue tit or cyanistes or pigeon or pigeons or columba or pintail or anas or starling or sturnus or owl or athene noctua or pochard or ferina or cockatiel or nymphiacus or hollandicus or skylark or alauda or tern or sterna or teal or crecca or oystercatcher or haematopus or ostralegus or shrew or shrews or sores or araneus or crocidura or russula or european mole or talpa or chiroptera or bat or bats or eptesicus or serotinus or myotis or dasycneme or daubentonii or pipistrelle or pipistrellus or cat or cats or felis or catus or feline or dog or dogs or canis or canine or canines or otter or otters or lutra or badger or badgers or meles or fitchew or fitch or fougart or foulmart or ferrets or ferret or polecat or polecats or mustela or putorius or weasel or weasels or fox or foxes or vulpes or common seal or phoca or vitulina or grey seal or halichoerus or horse or horses or equus or equine or equidae or donkey or donkeys or mule or mules or pig or pigs or swine or swines or hog or hogs or boar or boars or porcine or piglet or piglets or sus or scrofa or llama or llamas or lama or glama or deer or deers or cervus or elaphus or cow or cows or bos taurus or bos indicus or bovine or bull or bulls or cattle or bison or bison or sheep or sheeps or ovis aries or ovine or lamb or lambs or mouflon or mouflons or goat or goats or capra or caprine or chamois or rupicapra or leporidae or lagomorpha or lagomorph or rabbit or rabbits or oryctolagus or cuniculus or laprine or hares or lepus or rodentia or rodent or rodents or murinae or mouse or mice or mus or musculus or murine or woodmouse or apodemus or rat or rats or rattus or norvegicus or guinea pig or guinea pigs or cavia or porcellus or hamster or hamsters or mesocricetus or cricetus or cricetus or gerbil or gerbils or jird or jirds or meriones or unguiculatus or jerboa or jerboas or jaculus or chinchilla or chinchillas or beaver or beavers or castor fiber or castor canadensis or sciuridae or squirrel or squirrels or sciurus or chipmunk or chipmunks or marmot or marmots or marmota or suslik or susliks or spermophilus or cynomys or cottonrat or cottonrats or sigmodon or vole or voles or microtus or myodes or glareolus or primate or primates or prosimian or prosimians or lemur or lemurs or lemuridae or loris or bush baby or bush babies or bushbaby or bushbabies or galago or galagos or anthropoidea or anthropoids or simian or simians or monkey or monkeys or marmoset or marmosets or callithrix or cebuella or tamarin or tamarins or saguinus or leontopithecus or squirrel monkey or squirrel monkeys or saimiri or night monkey or night monkeys or owl monkey or owl monkeys or douroucoulis or aotus or spider monkey or spider monkeys or ateles or baboon or baboons or papio or rhesus monkey or macaque or macaca or mulatta or cynomolgus or fascicularis or green monkey or green monkeys or chlorocebus or vervet or vervets or pygerythrus or hominoidea or ape or apes or hylobatidae or gibbon or gibbons or siamang or siamangs or nomascus or symphalangus or hominidae or orangutan or orangutans or pongo or chimpanzee or chimpanzees or pan troglodytes or bonobo or bonobos or pan paniscus or gorilla or gorillas or troglodytes).ti,ab.
--	--	---

Web of Science

No.	Component	Terms
1	Burrowing	ALL= burrow*
AND	AND	AND
2	Pain	ALL=(pain OR hyperalgesia OR pain OR analgesia OR analgesic OR analgesics OR allodynia OR neuralgia OR hypersensitivity OR hyperalgesia OR hyperalgesic OR antinociception OR anti-nociception OR hypoalgesia OR hypoalgesic OR anti-hyperalgesia OR antihyperalgesia OR antihyperalgesic OR anti-hyperalgesic OR anti-allodynic OR antiallodynic OR anti-allodynia OR antiallodynia OR spinal cord injury OR nerve injury OR nerve injuries OR nerve transection OR nerve ligation OR neuropathy OR peripheral neuropathy OR polyneuropathy OR neuropathic OR headache OR headache-like OR migraine OR migraine like OR arthritis OR osteoarthritis OR rheumatoid arthritis OR colitis)
AND	AND	AND
3	Animal filters	TS=((animal experimentation OR models, animal OR invertebrates OR Animals OR animal population groups OR chordata OR chordata, nonvertebrate OR vertebrates

		OR amphibians OR birds OR fishes OR reptiles OR mammals OR primates OR artiodactyla OR carnivora OR cetacea OR chiroptera OR elephants OR hyraxes OR insectivora OR lagomorpha OR marsupialia OR monotremata OR perissodactyla OR rodentia OR scandentia OR sirenia OR xenarthra OR haplorhini OR strepsirhini OR platyrrhini OR tarsii OR catarrhini OR cercopithecidae OR hylobatidae OR hominidae OR gorilla OR gorilla OR pan OR paniscus OR pan troglodytes OR pongo pygmaeus) OR (animals OR animal OR mice OR mus OR mouse OR murine OR woodmouse OR rats OR rat OR murinae OR muridae OR cottonrat OR cottonrats OR hamster OR hamsters OR cricetinae OR rodentia OR rodent OR rodents OR pigs OR pig OR swine OR swines OR piglets OR piglet OR boar OR boars OR sus scrofa OR ferrets OR ferret OR polecat OR polecats OR mustela putorius OR guinea pigs OR guinea pig OR cavia OR callithrix OR marmoset OR marmosets OR cebuella OR hapale OR octodon OR chinchilla OR chinchillas OR gerbillinae OR gerbil OR gerbils OR jird OR jirds OR merione OR meriones OR rabbits OR rabbit OR hares OR hare OR diptera OR flies OR fly OR dipteral OR drosophila OR drosophilidae OR cats OR cat OR carus OR felis OR nematoda OR nematode OR nematodes OR sipunculida OR dogs OR dog OR canine OR canines OR canis OR sheep OR sheeps OR mouflon OR mouflons OR ovis OR goats OR goat OR capra OR capras OR rupicapra OR rupicapras OR chamois OR haplorhini OR monkey OR monkeys OR anthropoidea OR anthropoids OR saguinus OR tamarin OR tamarins OR leontopithecus OR hominidae OR ape OR apes OR pan OR paniscus OR bonobo OR bonobos OR pan troglodytes OR gibbon OR gibbons OR siamang OR siamangs OR nomascus OR symphalangus OR chimpanzee OR chimpanzees OR prosimian OR prosimians OR bush baby OR bush babies OR galagos OR galago OR pongidae OR gorilla OR gorillas OR pongo pygmaeus OR orangutan OR orangutans OR lemur OR lemurs OR lemuridae OR horse OR horses OR equus OR cow OR calf OR bull OR chicken OR chickens OR gallus OR quail OR bird OR birds OR quails OR poultry OR poultries OR fowl OR fowls OR reptile OR reptilia OR reptiles OR snakes OR snake OR lizard OR lizards OR alligator OR alligators OR crocodile OR crocodiles OR turtle OR turtles OR amphibian OR amphibians OR amphibia OR frog OR frogs OR bombina OR salientia OR toad OR toads OR epidalea calamita OR salamander OR salamanders OR eel OR eels OR fish OR fishes OR pisces OR catfish OR catfishes OR siluriformes OR arius OR heteropneustes OR sheatfish OR perch OR perches OR percidae OR perca OR trout OR trouts OR char OR chars OR salvelinus OR minnow OR cyprinidae OR carps OR carp OR zebrafish OR zebrafishes OR goldfish OR goldfishes OR guppy OR guppies OR chub OR chubs OR tinca OR barbels OR barbus OR pimphales OR promelas OR poecilia reticulata OR mullet OR mullets OR eel OR eels OR seahorse OR seahorses OR mugil curema OR atlantic cod OR shark OR sharks OR catshark OR anguilla OR salmonid OR salmonids OR whitefish OR whitefishes OR salmon OR salmons OR sole OR solea OR lamprey OR lampreys OR pumpkinseed OR sunfish OR sunfishes OR tilapia OR tilapias OR turbot OR turbot OR flatfish OR flatfishes OR sciuridae OR squirrel OR squirrels OR chipmunk OR chipmunks OR suslik OR susliks OR vole OR voles OR lemming OR lemmings OR muskrat OR muskrats OR lemmus OR otter OR otters OR marten OR martens OR marten OR weasel OR badger OR badgers OR ermine OR mink OR minks OR sable OR sables OR gulo OR gulos OR wolverine OR wolverines OR mustela OR llama OR llamas OR alpaca OR alpacas OR camelid OR camelids OR guanaco OR guanacos OR chiroptera OR chiropteras OR bat OR bats OR fox OR foxes OR iguana OR iguanas OR xenopus laevis OR parakeet OR parakeets OR parrot OR parrots OR donkey OR donkeys OR mule OR mules OR zebra OR zebras OR shrew OR shrews OR bison OR bisons OR buffalo OR buffaloes OR deer OR deers OR bear OR bears OR panda OR pandas OR wild hog OR wild boar OR fitchew OR fitch OR beaver OR beavers OR jerboa OR jerboas OR capybara OR capybaras))
--	--	--

Scopus

No.	Component	Terms
1	Burrowing	burrow*
AND	AND	AND
2	Pain	pain OR hyperalgesia OR pain OR analgesia OR analgesic OR analgesics OR allodynia OR neuralgia OR hypersensitivity OR hyperalgesia OR hyperalgesic OR antinociception OR anti-nociception OR hypoalgesia OR hypoalgesia OR antihyperalgesic OR antihyperalgesic OR antihyperalgesic OR anti-hyperalgesic OR anti allodynia OR antiallodynic OR anti-allodynia OR antiallodynia OR spinal cord injury OR nerve injury OR nerve injuries OR nerve transection OR nerve ligation OR neuropathy OR peripheral neuropathy OR polyneuropathy OR neuropathic OR headache OR headache-like OR migraine OR migraine like OR arthritis OR osteoarthritis OR rheumatoid arthritis OR colitis
AND	AND	AND
3	Animal filters	laboratory OR "Laboratory animal" OR "Laboratory animals" OR "Laboratory mouse" OR "Laboratory mice" OR "Laboratory rat" OR "Laboratory rats" OR murine OR murinae OR muridae OR mice OR mouse OR mus OR woodmouse OR rats OR rat OR cottonrat OR cottonrats OR rodent OR rodents OR rodentia OR model OR models OR "Animal model" OR "Animal models" OR "Rodent model" OR "Rodent models" OR "Murine model" OR "Murine models" OR "Rat model" OR "Rat models" OR "Rats model" OR "Mouse model" OR "Mouse models" OR "Mice model" OR in-vivo OR "In-vivo model"

Animal filter (reference)

1. Hooijmans, C. R., Tillema, A., Leenaars, M. & Ritskes-Hoitinga, M. Enhancing search efficiency by means of a search filter for finding all studies on animal experimentation in PubMed. *Lab. Anim.* **44**, 170–5 (2010).
2. de Vries RBM, H. C. T. A. L. M. R.-H. M. Updated version of Embase search filter for animal studies. (2014). doi:10.1177/0023677213494374

Table. The number of cohort-level comparisons and animals for study design characteristics used in rat modelling experiments.

	No. of studies	No. of reports	No. of cohort-level comparisons	No. of animals
Disease Model				
Somatic inflammation	5	12	20	371
Neuropathy: Trauma injury	7	9	13	230
Arthropathy	3	3	9	156
Procedure-associated pain	2	2	3	57
Cancer	1	1	1	50
Mucositis	1	1	1	32
Neuropathy: Diabetic-induced	1	1	1	29
Neuropathy: Antiretroviral-induced	1	1	1	15
Neuropathy: Chemotherapy-induced	1	1	1	12
Migraine	1	1	1	10
Rat Strain				
Sprague Dawley	13	16	27	542
Wistar	5	6	11	175
Wistar Hannover	3	4	10	167
LEW/CrlCrlj	1	1	1	30
Zucker diabetic fatty obese	1	1	1	29
Lewis	1	1	1	19
Sex				
Male	17	26	48	904
Not reported	1	1	1	29
Female	2	2	2	29
Substrate Type				
Gravel	13	19	30	580
Sand	5	6	18	331

Food pellet	2	2	2	32
Not reported	1	1	1	19

Burrowing Outcome

Amount displaced	19	28	51	962
------------------	----	----	----	-----

Burrowing Model Sensitivity

meta-analysis

##

SMD

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
-0.1207## Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
-0.0806## Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR
-2.5770## Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley;
NR -1.9370## Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.5933## Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.9651## Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-4.3292## Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-3.5585## Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.6867## Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.7664## Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.1980## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.5926## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -3.2349## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -0.0117## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -0.0735## Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male
-1.9736## Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male
-0.9625## Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.3928## Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley;
Male -1.7072## Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley;
Male -3.4403

Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male -1.1409

Smith et al., 2016; Somatic inflammation; Wistar; Male 0.8574

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male -3.2276

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male -2.2121

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male -0.6797

Wodarski et al., 2016; Somatic inflammation; Wistar; Male -0.6756

Wodarski et al., 2016; Somatic inflammation; Wistar; Male -1.2798

Wodarski et al., 2016; Somatic inflammation; Wistar; Male -0.7437

Wodarski et al., 2016; Somatic inflammation; Wistar; Male -1.8361

Wodarski et al., 2016; Somatic inflammation; Wistar; Male -1.0730

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male -0.5395

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male -1.2205

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male -1.8348

##

95%-CI

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR [-0.9780; 0.7367]

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR [-0.9620; 0.8008]

Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR [-3.5778; -1.5762]

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR [-4.3986; 0.5246]

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male [-2.6286; -0.5580]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male [-3.3794; -0.5507]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male [-6.5093; -2.1491]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male [-4.9886; -2.1284]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male [-2.6872; -0.6862]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.8348; -0.6980]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.4641; 0.0680]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-3.5794; 0.3942]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-5.0366; -1.4332]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-1.5439; 1.5205]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-1.4519; 1.3049]

Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male
[-4.6798; 0.7327]

Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male
[-1.8163; -0.1087]

Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-2.1247; -0.6609]

Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley;
Male [-2.8031; -0.6112]

Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley;
Male [-5.1316; -1.7490]

Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover;
Male [-2.0259; -0.2559]

Smith et al., 2016; Somatic inflammation; Wistar; Male
[-0.1806; 1.8954]

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-4.9845; -1.4708]

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-3.3755; -1.0487]

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-1.6965; 0.3371]

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-1.3908; 0.0395]

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-2.3178; -0.2418]

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-1.6826; 0.1952]

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-3.7111; 0.0389]

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-2.6432; 0.4972]

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male [-1.5429; 0.4638]

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.1054; -0.3357]

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male [-2.9169; -0.7527]

%W(random)

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR 3.8

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR 3.8

Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR 3.5

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR 1.5

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 3.5

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 2.8

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 1.7

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 2.7

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.5

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.4

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.0

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 1.9

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.2

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.6

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.8

Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male 1.3

Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 3.8

Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 4.0

Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.3

Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.3

Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 3.7

```

## Smith et al., 2016; Somatic inflammation; Wistar; Male
3.5
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
2.2
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.2
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.5
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
4.1
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
3.5
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
3.6
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
2.1
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
2.5
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male 3.5
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.8
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male 3.4
##
## Number of studies combined: k = 33
##
## SMD 95%-CI t p-value
## Random effects model -1.3932 [-1.7759; -1.0104] -7.41 < 0.0001
## Prediction interval [-3.1182; 0.3318]
##
## Quantifying heterogeneity:
## tau^2 = 0.6801 [0.3245; 1.7126]; tau = 0.8247 [0.5697; 1.3087]
## I^2 = 64.8% [49.0%; 75.6%]; H = 1.68 [1.40; 2.03]
##
## Test of heterogeneity:
## Q d.f. p-value
## 90.84 32 < 0.0001
##
## Details on meta-analytical method:
## - Inverse variance method
## - Restricted maximum-likelihood estimator for tau^2
## - Q-profile method for confidence interval of tau^2 and tau
## - Hartung-Knapp adjustment for random effects model

```

```
# detecting outliers
```

```
## Author
```

```
Lowerci
```

```
## 1 Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR -  
0.9780000
```

```
## 2 Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR -  
0.9619781
```

```
## 3 Smith et al., 2016; Somatic inflammation; Wistar; Male -  
0.1806308
```

```
## upperci
```

```
## 1 0.7366532
```

```
## 2 0.8007802
```

```
## 3 1.8953616
```

```
# meta-analysis with outliers removal
```

##

SMD

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
-0.0806

Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR
-2.5770

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley;
NR -1.9370

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.5933

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.9651

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-4.3292

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-3.5585

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.6867

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.7664

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.1980

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.5926

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -3.2349

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -0.0117

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -0.0735

Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male
-1.9736

Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male
-0.9625

Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.3928

Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley;
Male -1.7072

Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley;
Male -3.4403

Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover;
Male -1.1409

Smith et al., 2016; Somatic inflammation; Wistar; Male
0.8574

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-3.2276

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-2.2121

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-0.6797

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-0.6756

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-1.2798

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-0.7437

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-1.8361

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-1.0730

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male -0.5395

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.2205

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male -1.8348

95%-CI

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
[-0.9620; 0.8008]

Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR
[-3.5778; -1.5762]

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley;
NR [-4.3986; 0.5246]

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-2.6286; -0.5580]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-3.3794; -0.5507]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-6.5093; -2.1491]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-4.9886; -2.1284]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.6872; -0.6862]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.8348; -0.6980]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.4641; 0.0680]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-3.5794; 0.3942]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-5.0366; -1.4332]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
 Dawley; Male [-1.5439; 1.5205]
 ## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
 Dawley; Male [-1.4519; 1.3049]
 ## Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male
 [-4.6798; 0.7327]
 ## Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male
 [-1.8163; -0.1087]
 ## Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague
 Dawley; Male [-2.1247; -0.6609]
 ## Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley;
 Male [-2.8031; -0.6112]
 ## Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley;
 Male [-5.1316; -1.7490]
 ## Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover;
 Male [-2.0259; -0.2559]
 ## Smith et al., 2016; Somatic inflammation; Wistar; Male
 [-0.1806; 1.8954]
 ## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
 [-4.9845; -1.4708]
 ## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
 [-3.3755; -1.0487]
 ## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
 [-1.6965; 0.3371]
 ## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
 [-1.3908; 0.0395]
 ## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
 [-2.3178; -0.2418]
 ## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
 [-1.6826; 0.1952]
 ## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
 [-3.7111; 0.0389]
 ## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
 [-2.6432; 0.4972]
 ## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
 Male [-1.5429; 0.4638]
 ## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
 [-2.1054; -0.3357]
 ## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
 Male [-2.9169; -0.7527]
 ##
 %W(random)
 ## Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
 3.9
 ## Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR
 3.7

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR 1.5

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 3.6

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 2.9

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 1.8

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 2.8

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.7

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.5

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.1

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.0

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.2

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.7

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.9

Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male 1.3

Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 4.0

Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 4.2

Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.5

Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.4

Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 3.9

Smith et al., 2016; Somatic inflammation; Wistar; Male 3.6

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 2.3

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.3

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.6

Wodarski et al., 2016; Somatic inflammation; Wistar; Male 4.3

```

## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
3.6
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
3.8
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
2.1
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
2.6
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male 3.7
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.9
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male 3.5
##
## Number of studies combined: k = 32
##
## SMD 95%-CI t p-value
## Random effects model -1.4400 [-1.8248; -1.0552] -7.63 < 0.0001
## Prediction interval [-3.1272; 0.2471]
##
## Quantifying heterogeneity:
## tau^2 = 0.6469 [0.2964; 1.6846]; tau = 0.8043 [0.5444; 1.2979]
## I^2 = 63.2% [46.2%; 74.8%]; H = 1.65 [1.36; 1.99]
##
## Test of heterogeneity:
## Q d.f. p-value
## 84.15 31 < 0.0001
##
## Details on meta-analytical method:
## - Inverse variance method
## - Restricted maximum-likelihood estimator for tau^2
## - Q-profile method for confidence interval of tau^2 and tau
## - Hartung-Knapp adjustment for random effects model

# meta-analysis with removal of studies with high risk of bias

```

##

SMD

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
-0.1207

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
-0.0806

Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR
-2.5770

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR
-1.9370

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.5933

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.9651

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-4.3292

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-3.5585

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.6867

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.7664

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.1980

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.5926

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -3.2349

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -0.0117

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male -0.0735

Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male
-1.9736

Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male
-0.9625

Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.3928

Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley;
Male -1.7072

Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover;
Male -1.1409

Smith et al., 2016; Somatic inflammation; Wistar; Male
0.8574

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-3.2276

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-2.2121

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-0.6797

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-0.6756

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-1.2798

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-0.7437

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-1.8361

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
-1.0730

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male -0.5395

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
-1.2205

Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male -1.8348

95%-CI

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
[-0.9780; 0.7367]

Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
[-0.9620; 0.8008]

Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR
[-3.5778; -1.5762]

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley;
NR [-4.3986; 0.5246]

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-2.6286; -0.5580]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-3.3794; -0.5507]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-6.5093; -2.1491]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-4.9886; -2.1284]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.6872; -0.6862]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.8348; -0.6980]

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.4641; 0.0680]

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-3.5794; 0.3942]

```

## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-5.0366; -1.4332]
## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-1.5439; 1.5205]
## Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-1.4519; 1.3049]
## Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male
[-4.6798; 0.7327]
## Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male
[-1.8163; -0.1087]
## Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague
Dawley; Male [-2.1247; -0.6609]
## Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley;
Male [-2.8031; -0.6112]
## Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover;
Male [-2.0259; -0.2559]
## Smith et al., 2016; Somatic inflammation; Wistar; Male
[-0.1806; 1.8954]
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-4.9845; -1.4708]
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-3.3755; -1.0487]
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-1.6965; 0.3371]
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-1.3908; 0.0395]
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-2.3178; -0.2418]
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-1.6826; 0.1952]
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-3.7111; 0.0389]
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
[-2.6432; 0.4972]
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male [-1.5429; 0.4638]
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
[-2.1054; -0.3357]
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male [-2.9169; -0.7527]
##
%W(random)
## Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
3.9
## Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR
3.9

```

Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR
3.6

Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR
1.4

Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male 3.6

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
2.8

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
1.7

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
2.8

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.6

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.5

Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.1

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male 1.9

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male 2.2

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male 2.6

Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague
Dawley; Male 2.9

Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male
1.3

Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male
4.0

Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague
Dawley; Male 4.2

Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley;
Male 3.4

Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover;
Male 3.9

Smith et al., 2016; Somatic inflammation; Wistar; Male
3.5

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
2.2

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.3

Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.6

Wodarski et al., 2016; Somatic inflammation; Wistar; Male
4.3

```

## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
3.5
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
3.8
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
2.1
## Wodarski et al., 2016; Somatic inflammation; Wistar; Male
2.5
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male 3.6
## Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male
3.9
## Wodarski et al., 2016; Somatic inflammation; Wistar Hannover;
Male 3.5
##
## Number of studies combined: k = 32
##
##          SMD          95%-CI      t  p-value
## Random effects model -1.3372 [-1.7117; -0.9627] -7.28 < 0.0001
## Prediction interval      [-2.9751; 0.3006]
##
## Quantifying heterogeneity:
## tau^2 = 0.6094 [0.2785; 1.5975]; tau = 0.7807 [0.5278; 1.2639]
## I^2 = 63.2% [46.2%; 74.8%]; H = 1.65 [1.36; 1.99]
##
## Test of heterogeneity:
##      Q d.f.  p-value
## 84.14  31 < 0.0001
##
## Details on meta-analytical method:
## - Inverse variance method
## - Restricted maximum-likelihood estimator for tau^2
## - Q-profile method for confidence interval of tau^2 and tau
## - Hartung-Knapp adjustment for random effects model

```

meta-analysis based on “excluding studies that reported burrowing as a primary outcome measure from those reporting it as a secondary outcome measure”

The sensitivity test based on “excluding studies that reported burrowing as a primary outcome measure from those reporting it as a secondary outcome measure” was not possible as only five studies declared such information.

influence analysis

Leave-One-Out Analysis (Sorted by I2)

##

Effect

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male
-1.451

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2 -1.319

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1 -1.334

Omitting Andrews et al., 2012; Somatic inflammation; Sprague
Dawley; NR -1.345

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR.1 -1.440

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR -1.440

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male -1.337

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.1 -1.348

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male -1.346

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.3 -1.431

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1 -1.367

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.2 -1.429

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male -1.426

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male -1.426

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2 -1.422

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male.1 -1.381

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male -1.379

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.3 -1.387

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.4 -1.384

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.2 -1.421

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague
Dawley; Male -1.386

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR -1.387

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.390

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.415

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 -1.386

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.392

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male -1.387

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.399

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 -1.403

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male -1.408

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 -1.402

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 -1.405

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 -1.405

##

LLCI

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male -1.810

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 -1.687

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 -1.698

Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR -1.732

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1 -1.825

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR -1.825

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.712

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1 -1.727

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male -1.726

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3 -1.816

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 -1.759

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2 -1.814

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male -1.820

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male -1.818

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 -1.816

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1 -1.777

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male -1.773

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 -1.783

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4 -1.780

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2 -1.815

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male -1.782

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR -1.778

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.787

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.811

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 -1.779

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.785

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male -1.778

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.797

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 -1.800

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male -1.805

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 -1.799

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 -1.800

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 -1.803

##

ULCI

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male
-1.093

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2 -0.951

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1 -0.970

Omitting Andrews et al., 2012; Somatic inflammation; Sprague
Dawley; NR -0.959

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR.1 -1.056

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR -1.055

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male -0.963

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.1 -0.969

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male -0.967

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.3 -1.045

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1 -0.975

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.2 -1.043

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male -1.032

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male -1.034

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2 -1.028

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male.1 -0.986

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male -0.986

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.3 -0.990

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.4 -0.988

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.2 -1.027

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague
Dawley; Male -0.990

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague
Dawley; NR -0.995

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male -0.994

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.018

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 -0.993

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male -0.998

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male -0.996

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male -1.000

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 -1.007

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male -1.011

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 -1.005

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 -1.010

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 -1.007

##

I2

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male 0.586

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 0.614

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 0.626

Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR 0.629

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1 0.631

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR 0.632

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.632

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1 0.639

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 0.639

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3 0.648

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 0.648

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2 0.649

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male 0.649

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male 0.652

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 0.654

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1 0.654

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 0.655

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 0.655

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4 0.655

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2 0.655

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male 0.656

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR 0.657

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.657

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.657

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 0.657

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.658

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male 0.658

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.658

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 0.659

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 0.659

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 0.659

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 0.659

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 0.659

##

##

Influence Diagnostics

##

rstudent

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;

NR 1.413

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;

NR.1 1.451

Omitting Andrews et al., 2012; Somatic inflammation; Sprague

Dawley; NR -1.274

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague

Dawley; NR -0.362

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury;

Sprague Dawley; Male -0.199

Omitting Gould et al., 2016; Somatic inflammation; Sprague

Dawley; Male -0.523

Omitting Gould et al., 2016; Somatic inflammation; Sprague

Dawley; Male.1 -2.195

Omitting Gould et al., 2016; Somatic inflammation; Sprague

Dawley; Male.2 -2.113

Omitting Gould et al., 2016; Somatic inflammation; Sprague

Dawley; Male.3 -0.298

Omitting Gould et al., 2016; Somatic inflammation; Sprague

Dawley; Male.4 -0.374

Omitting Gould et al., 2016; Somatic inflammation; Sprague

Dawley; Male.5 0.190

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;

Sprague Dawley; Male -0.151

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;

Sprague Dawley; Male.1 -1.534

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;

Sprague Dawley; Male.2 1.234

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;

Sprague Dawley; Male.3 1.239

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar;

Male -0.362

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague

Dawley; Male 0.464

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury;

Sprague Dawley; Male 0.006

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague

Dawley; Male -0.311

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague

Dawley; Male -1.787

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar

Hannover; Male 0.272

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male
2.567

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male -1.552

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1 -0.816

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2 0.738

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male 0.803

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.1 0.120

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.2 0.686

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.3 -0.350

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.4 0.282

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male 0.889

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.3 0.187

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male.1 -0.443

##

dffits

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR 0.262

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR.1 0.266

Omitting Andrews et al., 2012; Somatic inflammation; Sprague
Dawley; NR -0.268

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague
Dawley; NR -0.036

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury;
Sprague Dawley; Male -0.015

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male -0.076

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1 -0.334

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2 -0.429

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.3 -0.035

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.4 -0.051

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 0.056

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male -0.008

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1 -0.253

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2 0.196

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3 0.206

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male -0.034

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.115

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.030

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male -0.038

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male -0.315

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 0.079

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male 0.355

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male -0.261

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 -0.145

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 0.155

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male 0.179

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 0.048

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2 0.150

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 -0.039

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 0.064

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male 0.179

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 0.063

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1 -0.065

##

cook.d

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR 0.066

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR.1 0.068

Omitting Andrews et al., 2012; Somatic inflammation; Sprague
Dawley; NR 0.069

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague
Dawley; NR 0.001

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury;
Sprague Dawley; Male 0.000

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male 0.006

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1 0.107

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2 0.166

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.3 0.001

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.4 0.003

Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.5 0.003

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male 0.000

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.1 0.062

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.2 0.038

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury;
Sprague Dawley; Male.3 0.042

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar;
Male 0.001

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague
Dawley; Male 0.014

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury;
Sprague Dawley; Male 0.001

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague
Dawley; Male 0.001

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague
Dawley; Male 0.094

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar
Hannover; Male 0.007

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male
0.102

```
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male          0.066
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1        0.021
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2        0.025
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male                   0.033
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.1                 0.002
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.2                 0.023
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.3                 0.002
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;
Male.4                 0.004
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male        0.033
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague
Dawley; Male.3        0.004
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar
Hannover; Male.1      0.004
```

```
##
```

```
cov.r
```

```
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR                     1.006
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar;
NR.1                   1.002
## Omitting Andrews et al., 2012; Somatic inflammation; Sprague
Dawley; NR             0.998
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague
Dawley; NR             1.029
## Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury;
Sprague Dawley; Male   1.077
## Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male           1.050
## Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.1         0.932
## Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.2         0.907
## Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.3         1.075
## Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.4         1.069
## Omitting Gould et al., 2016; Somatic inflammation; Sprague
Dawley; Male.5         1.071
```

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 1.043

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1 0.977

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2 1.020

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3 1.021

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male 1.025

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 1.082

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 1.094

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male 1.070

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.953

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 1.086

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male 0.854

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 0.975

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 1.039

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 1.063

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male 1.068

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 1.081

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2 1.069

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 1.042

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 1.058

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male 1.054

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 1.087

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1 1.065

##

QE.del

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR 84.152

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1 84.063

Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR 83.523

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR 90.510

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 90.325

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 89.756

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 82.972

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 80.392

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 89.976

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4 89.806

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 90.835

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 90.702

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1 85.986

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2 88.399

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3 88.114

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male 90.539

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 90.462

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 90.612

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male 90.060

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 84.142

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 90.802

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male 74.859

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 85.769

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 87.976

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 89.701

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male 88.414

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 90.824

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2 89.794

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 90.420

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 90.801

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male 88.989

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 90.836

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1 89.564

##

hat

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR 0.038

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1 0.038

Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR 0.035

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR 0.015

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.035

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 0.028

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 0.017

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 0.027

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 0.035

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4 0.034

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 0.030

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.019

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1 0.022

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2 0.026

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3 0.028

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male 0.013

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.038

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.040

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male 0.033

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 0.023

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 0.037

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male 0.035

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 0.022

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 0.032

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 0.035

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male 0.041

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 0.035

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2 0.036

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 0.021

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 0.025

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male 0.035

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 0.038

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1 0.034

##

weight

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR 3.804

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1 3.757

Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR 3.523

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR 1.468

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 3.456

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male 2.760

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 1.729

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 2.734

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 3.524

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4 3.392

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5 3.021

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male 1.941

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1 2.173

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2 2.567

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3 2.822

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male 1.281

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male 3.811

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male 4.045

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male 3.339

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male 2.326

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male 3.750

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male 3.451

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male 2.234

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1 3.211

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2 3.492

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male 4.076

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1 3.451

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2 3.644

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3 2.078

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4 2.508

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male 3.518

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3 3.750

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1 3.365

##

infl

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1

Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR

Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR

Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4

Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2

Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3

Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male

Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male

Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male

Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male

Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male

Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3

Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1

##

##

Baujat Diagnostics (sorted by Heterogeneity Contribution)

##

HetContrib

Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male

15.419

## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2	10.252
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1	7.802
## Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR	7.039
## Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male	6.607
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1	6.445
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR	6.342
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male	5.005
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1	4.794
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1	2.781
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3	2.668
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2	2.398
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male	2.244
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male	1.778
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1	1.231
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2	1.094
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male	1.060
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2	0.998
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4	0.997
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3	0.828
## Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male	0.752
## Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.493
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3	0.412
## Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague	

Dawley; Male	0.355
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR	0.324
## Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male	0.296
## Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.209
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.133
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4	0.035
## Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male	0.032
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1	0.012
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5	0.001
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3	0.000
##	
InfluenceEffectSize	
## Omitting Smith et al., 2016; Somatic inflammation; Wistar; Male	0.558
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.2	0.192
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.1	0.062
## Omitting Andrews et al., 2012; Somatic inflammation; Sprague Dawley; NR	0.275
## Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.088
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR.1	0.328
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Wistar; NR	0.342
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male	0.062
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.1	0.056
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.1	0.080
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.3	0.054
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male.2	0.039
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar;	

Male	0.178
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male	0.069
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar Hannover; Male.1	0.041
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.2	0.041
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male	0.020
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.2	0.044
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.4	0.034
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.3	0.032
## Omitting Muralidharan et al., 2016; Somatic inflammation; Sprague Dawley; Male	0.024
## Omitting Deseure and Hans, 2018; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.018
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.3	0.004
## Omitting Lau et al., 2013; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.019
## Omitting Andrews et al., 2012; Neuropathy: Trauma Injury; Sprague Dawley; NR	0.002
## Omitting Huang et al., 2013; Neuropathy: Trauma Injury; Wistar; Male	0.002
## Omitting Muralidharan et al., 2016; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.016
## Omitting Guimaraes et al., 2019; Neuropathy: Trauma Injury; Sprague Dawley; Male	0.001
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.4	0.001
## Omitting Rutten et al., 2018; Neuropathy: Trauma Injury; Wistar Hannover; Male	0.002
## Omitting Wodarski et al., 2016; Somatic inflammation; Wistar; Male.1	0.000
## Omitting Gould et al., 2016; Somatic inflammation; Sprague Dawley; Male.5	0.000
## Omitting Wodarski et al., 2016; Somatic inflammation; Sprague Dawley; Male.3	0.000

Table. The number of cohort-level comparisons and animals for study design characteristics used in rat intervention experiments.

	No. of studies	No. of reports	No. of cohort-level comparisons	No. of animals
Disease Model				
Arthropathy	3	4	35	431
Somatic inflammation	2	2	21	320
Neuropathy: Diabetic-induced	1	2	12	213
Neuropathy: Trauma injury	2	2	10	177
Spinal cord injury	1	1	6	154
Mucositis	1	1	4	40
Procedure associated pain	1	1	1	16
Drug Class				
Gabapentinoid	6	8	25	403
NSAID	5	6	22	313
Opioid	4	5	22	288
Unknown mechanism of action	2	2	8	154
GABA agonist	1	1	3	44
Fatty acid amide hydrolase inhibitor	1	1	3	33
Nerve growth factor antibody	2	2	2	39
Dual amylin and calcitonin receptor agonist	1	1	1	13
Sodium channel blocker	1	1	1	26
TRPV1 antagonist	1	1	1	16
Combined therapy	1	1	1	22
Rat Strain				
Sprague Dawley	5	6	48	728
Wistar Hannover	1	1	17	191
Zucker diabetic fatty obese	1	1	10	174

Wistar	2	2	7	170
DA/Arc	1	1	4	40
Lewis	1	1	3	48
Sex				
Male	8	9	72	1089
Not reported	1	1	10	174
Female	2	2	7	88
Substrate Type				
Sand	3	3	47	668
Gravel	7	8	41	667
Food pellet	1	1	1	16
Burrowing Outcome				
Amount displaced	11	12	89	1351

S5

Burrowing Intervention Sensitivity

meta-analysis

##

SMD

Andrews et al., 2012; Ibuprofen; Somatic inflammation
1.5341

Bryden et al., 2015; Celecoxib; Arthropathy
0.3582

Bryden et al., 2015; Celecoxib; Arthropathy
0.7936

Bryden et al., 2015; Celecoxib; Arthropathy
0.6324

Bryden et al., 2015; Gabapentin ; Arthropathy -
0.2898

Bryden et al., 2015; Gabapentin; Arthropathy -
0.0327

Bryden et al., 2015; Gabapentin; Arthropathy -
0.0367

Bryden et al., 2015; Ibuprofen; Arthropathy
0.5166

Bryden et al., 2015; Ibuprofen; Arthropathy
0.4280

Bryden et al., 2015; Ibuprofen; Arthropathy
0.2447

Bryden et al., 2015; Morphine; Arthropathy
0.6919

Bryden et al., 2015; Morphine; Arthropathy
0.1699

Bryden et al., 2015; Morphine; Arthropathy
0.7987

Bryden et al., 2015; Morphine; Arthropathy
0.7781

Georgieva et al., 2019; Pregabalin; Spinal cord injury
2.3549

Georgieva et al., 2019; Pregabalin; Spinal cord injury
1.7483

Gould et al., 2016; Celecoxib; Somatic inflammation
0.9191

Gould et al., 2016; Celecoxib; Somatic inflammation
0.3905

Gould et al., 2016; Celecoxib; Somatic inflammation -
0.1064

Gould et al., 2016; Gabapentin; Somatic inflammation -
0.0927

## Gould et al., 2016; Gabapentin; Somatic inflammation	-
1.2407	
## Gould et al., 2016; Gabapentin; Somatic inflammation	-
0.1670	
## Gould et al., 2016; Ibuprofen; Somatic inflammation	
1.8166	
## Gould et al., 2016; Indomethacin; Somatic inflammation	
0.4873	
## Gould et al., 2016; Indomethacin; Somatic inflammation	
0.3141	
## Gould et al., 2016; Indomethacin; Somatic inflammation	
0.3659	
## Gould et al., 2016; Morphine; Somatic inflammation	
0.4095	
## Gould et al., 2016; Morphine; Somatic inflammation	
0.8877	
## Gould et al., 2016; Morphine; Somatic inflammation	-
0.1140	
## Gould et al., 2016; Tramadol; Somatic inflammation	
0.6187	
## Gould et al., 2016; Tramadol; Somatic inflammation	-
0.5030	
## Gould et al., 2016; Tramadol; Somatic inflammation	-
1.0887	
## Katri et al., 2019; Naproxen; Arthropathy	-
0.3977	
## Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury	
1.8393	
## Rutten et al., 2014; Ibuprofen; Arthropathy	
2.1467	
## Rutten et al., 2014; Ibuprofen; Arthropathy	
2.3016	
## Rutten et al., 2014; Morphine; Arthropathy	
1.4692	
## Rutten et al., 2014; Morphine; Arthropathy	
1.2586	
## Rutten et al., 2014; Morphine; Arthropathy	
1.1209	
## Rutten et al., 2014; Naproxen; Arthropathy	
2.0364	
## Rutten et al., 2014; Naproxen; Arthropathy	
0.9457	
## Rutten et al., 2014; Naproxen; Arthropathy	
0.4620	
## Rutten et al., 2014; Naproxen; Arthropathy	
1.0277	

Rutten et al., 2014; Naproxen; Arthropathy
1.5052

Rutten et al., 2014; Pregabalin; Arthropathy
1.4343

Rutten et al., 2014; Pregabalin; Arthropathy
0.4772

Rutten et al., 2014; Pregabalin; Arthropathy
1.0427

Rutten et al., 2014; Pregabalin; Arthropathy
1.4475

Rutten et al., 2014; Pregabalin; Arthropathy
1.3090

Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
0.9613

Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
1.6818

Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced -
0.3123

Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced
0.1925

Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.5008

Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.8370

Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.8095

Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
0.3395

Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced -
0.1899

Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
0.0847

Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.7115

Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
2.0890

Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.1622

Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
0.2304

Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced -
0.0117

Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced -
0.1285

Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced -
0.2959

Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced - 4.4069

Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced - 0.5167

Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced - 4.6307

##

95%-CI

Andrews et al., 2012; Ibuprofen; Somatic inflammation [- 0.4147; 2.6536]

Bryden et al., 2015; Celecoxib; Arthropathy [- 1.0409; 1.7572]

Bryden et al., 2015; Celecoxib; Arthropathy [- 0.6557; 2.2429]

Bryden et al., 2015; Celecoxib; Arthropathy [- 0.7941; 2.0589]

Bryden et al., 2015; Gabapentin ; Arthropathy [- 1.6843; 1.1047]

Bryden et al., 2015; Gabapentin; Arthropathy [- 1.4187; 1.3534]

Bryden et al., 2015; Gabapentin; Arthropathy [- 1.4227; 1.3494]

Bryden et al., 2015; Ibuprofen; Arthropathy [- 0.8141; 1.8474]

Bryden et al., 2015; Ibuprofen; Arthropathy [- 0.8953; 1.7512]

Bryden et al., 2015; Ibuprofen; Arthropathy [- 1.0674; 1.5568]

Bryden et al., 2015; Morphine; Arthropathy [- 0.9058; 2.2896]

Bryden et al., 2015; Morphine; Arthropathy [- 1.3826; 1.7223]

Bryden et al., 2015; Morphine; Arthropathy [- 0.8147; 2.4121]

Bryden et al., 2015; Morphine; Arthropathy [- 0.8321; 2.3883]

Georgieva et al., 2019; Pregabalin; Spinal cord injury [- 1.0988; 3.6110]

Georgieva et al., 2019; Pregabalin; Spinal cord injury [- 0.6168; 2.8797]

Gould et al., 2016; Celecoxib; Somatic inflammation [- 0.3453; 2.1834]

Gould et al., 2016; Celecoxib; Somatic inflammation [- 0.8186; 1.5996]

Gould et al., 2016; Celecoxib; Somatic inflammation [- 1.2767; 1.0640]

## Gould et al., 2016; Gabapentin; Somatic inflammation	[-
1.4001; 1.2147]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-
2.6518; 0.1703]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-
1.4595; 1.1255]	
## Gould et al., 2016; Ibuprofen; Somatic inflammation	[
0.6745; 2.9588]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-
0.5986; 1.5731]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-
0.7090; 1.3371]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-
0.6809; 1.4126]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-
0.8008; 1.6198]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-
0.3525; 2.1278]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-
1.3116; 1.0837]	
## Gould et al., 2016; Tramadol; Somatic inflammation	[-
0.8061; 2.0435]	
## Gould et al., 2016; Tramadol; Somatic inflammation	[-
1.9147; 0.9087]	
## Gould et al., 2016; Tramadol; Somatic inflammation	[-
2.5918; 0.4143]	
## Katri et al., 2019; Naproxen; Arthropathy	[-
1.6503; 0.8548]	
## Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury	[
0.8574; 2.8212]	
## Rutten et al., 2014; Ibuprofen; Arthropathy	[
0.6613; 3.6320]	
## Rutten et al., 2014; Ibuprofen; Arthropathy	[
0.7703; 3.8329]	
## Rutten et al., 2014; Morphine; Arthropathy	[-
0.0213; 2.9598]	
## Rutten et al., 2014; Morphine; Arthropathy	[-
0.1853; 2.7025]	
## Rutten et al., 2014; Morphine; Arthropathy	[-
0.2957; 2.5375]	
## Rutten et al., 2014; Naproxen; Arthropathy	[
0.5825; 3.4902]	
## Rutten et al., 2014; Naproxen; Arthropathy	[-
0.2627; 2.1540]	
## Rutten et al., 2014; Naproxen; Arthropathy	[-
0.8639; 1.7880]	

## Rutten et al., 2014; Naproxen; Arthropathy	[-
0.3719; 2.4274]	
## Rutten et al., 2014; Naproxen; Arthropathy	[
0.0061; 3.0043]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[
0.1328; 2.7357]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[-
0.6745; 1.6288]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[-
0.3596; 2.4450]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[-
0.0379; 2.9330]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[-
0.1455; 2.7636]	
## Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury	[-
0.0286; 1.9512]	
## Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury	[
0.5682; 2.7953]	
## Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced	[-
1.2256; 0.6011]	
## Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced	[-
0.7171; 1.1020]	
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury	[
0.2933; 2.7084]	
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury	[-
0.2057; 1.8797]	
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury	[-
0.2772; 1.8962]	
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced	[-
0.8511; 1.5301]	
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced	[-
1.3745; 0.9947]	
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced	[-
1.0977; 1.2672]	
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury	[
0.4562; 2.9668]	
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury	[
0.7381; 3.4399]	
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury	[
0.0213; 2.3031]	
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced	[-
0.6802; 1.1410]	
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced	[-
0.9190; 0.8956]	
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced	[-
1.0061; 0.7492]	

```

## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced [-
1.2026; 0.6108]
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced [-
6.6147; -2.1991]
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced [-
1.7186; 0.6853]
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced [-
6.9191; -2.3424]
##
%W(random)
## Andrews et al., 2012; Ibuprofen; Somatic inflammation
1.6
## Bryden et al., 2015; Celecoxib; Arthropathy
1.3
## Bryden et al., 2015; Celecoxib; Arthropathy
1.3
## Bryden et al., 2015; Celecoxib; Arthropathy
1.3
## Bryden et al., 2015; Gabapentin ; Arthropathy
1.3
## Bryden et al., 2015; Gabapentin; Arthropathy
1.3
## Bryden et al., 2015; Gabapentin; Arthropathy
1.3
## Bryden et al., 2015; Ibuprofen; Arthropathy
1.4
## Bryden et al., 2015; Ibuprofen; Arthropathy
1.4
## Bryden et al., 2015; Ibuprofen; Arthropathy
1.4
## Bryden et al., 2015; Morphine; Arthropathy
1.1
## Bryden et al., 2015; Morphine; Arthropathy
1.2
## Bryden et al., 2015; Morphine; Arthropathy
1.1
## Bryden et al., 2015; Morphine; Arthropathy
1.1
## Georgieva et al., 2019; Pregabalin; Spinal cord injury
1.5
## Georgieva et al., 2019; Pregabalin; Spinal cord injury
1.6
## Gould et al., 2016; Celecoxib; Somatic inflammation
1.5
## Gould et al., 2016; Celecoxib; Somatic inflammation
1.5

```

Gould et al., 2016; Celecoxib; Somatic inflammation
1.6

Gould et al., 2016; Gabapentin; Somatic inflammation
1.4

Gould et al., 2016; Gabapentin; Somatic inflammation
1.3

Gould et al., 2016; Gabapentin; Somatic inflammation
1.4

Gould et al., 2016; Ibuprofen; Somatic inflammation
1.6

Gould et al., 2016; Indomethacin; Somatic inflammation
1.7

Gould et al., 2016; Indomethacin; Somatic inflammation
1.8

Gould et al., 2016; Indomethacin; Somatic inflammation
1.7

Gould et al., 2016; Morphine; Somatic inflammation
1.5

Gould et al., 2016; Morphine; Somatic inflammation
1.5

Gould et al., 2016; Morphine; Somatic inflammation
1.5

Gould et al., 2016; Tramadol; Somatic inflammation
1.3

Gould et al., 2016; Tramadol; Somatic inflammation
1.3

Gould et al., 2016; Tramadol; Somatic inflammation
1.2

Katri et al., 2019; Naproxen; Arthropathy
1.5

Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
1.8

Rutten et al., 2014; Ibuprofen; Arthropathy
1.2

Rutten et al., 2014; Ibuprofen; Arthropathy
1.2

Rutten et al., 2014; Morphine; Arthropathy
1.2

Rutten et al., 2014; Morphine; Arthropathy
1.3

Rutten et al., 2014; Morphine; Arthropathy
1.3

Rutten et al., 2014; Naproxen; Arthropathy
1.3

Rutten et al., 2014; Naproxen; Arthropathy
1.5

Rutten et al., 2014; Naproxen; Arthropathy
1.4
Rutten et al., 2014; Naproxen; Arthropathy
1.3
Rutten et al., 2014; Naproxen; Arthropathy
1.2
Rutten et al., 2014; Pregabalin; Arthropathy
1.4
Rutten et al., 2014; Pregabalin; Arthropathy
1.6
Rutten et al., 2014; Pregabalin; Arthropathy
1.3
Rutten et al., 2014; Pregabalin; Arthropathy
1.2
Rutten et al., 2014; Pregabalin; Arthropathy
1.3
Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
1.8
Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
1.6
Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced
1.9
Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced
1.9
Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.5
Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.7
Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.7
Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
1.5
Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
1.6
Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
1.6
Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.5
Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.4
Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.6
Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
1.9
Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
1.9

```

## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
2.0
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
1.9
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced
0.7
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced
1.5
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced
0.7
##
## Number of studies combined: k = 69
##
##              SMD              95%-CI      t  p-value
## Random effects model 0.5808 [ 0.3390; 0.8226] 4.79 < 0.0001
## Prediction interval      [-0.7118; 1.8734]
##
## Quantifying heterogeneity:
## tau^2 = 0.4047 [0.3046; 1.2305]; tau = 0.6361 [0.5519; 1.1093]
## I^2 = 53.8% [39.3%; 64.8%]; H = 1.47 [1.28; 1.69]
##
## Test of heterogeneity:
##      Q d.f.  p-value
## 147.15   68 < 0.0001
##
## Details on meta-analytical method:
## - Inverse variance method
## - Restricted maximum-likelihood estimator for tau^2
## - Q-profile method for confidence interval of tau^2 and tau
## - Hartung-Knapp adjustment for random effects model

```

detecting outliers

```

##                                     Author
Lowerci upperci
## 1 Georgieva et al., 2019; Pregabalin; Spinal cord injury
1.0987584 3.611014
## 2 Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.8573724 2.821207

```

meta-analysis with outliers removal

SMD

Andrews et al., 2012; Ibuprofen; Somatic inflammation
1.5341

Bryden et al., 2015; Celecoxib; Arthropathy
0.3582

Bryden et al., 2015; Celecoxib; Arthropathy
0.7936

Bryden et al., 2015; Celecoxib; Arthropathy
0.6324

Bryden et al., 2015; Gabapentin ; Arthropathy -
0.2898

Bryden et al., 2015; Gabapentin; Arthropathy -
0.0327

Bryden et al., 2015; Gabapentin; Arthropathy -
0.0367

Bryden et al., 2015; Ibuprofen; Arthropathy
0.5166

Bryden et al., 2015; Ibuprofen; Arthropathy
0.4280

Bryden et al., 2015; Ibuprofen; Arthropathy
0.2447

Bryden et al., 2015; Morphine; Arthropathy
0.6919

Bryden et al., 2015; Morphine; Arthropathy
0.1699

Bryden et al., 2015; Morphine; Arthropathy
0.7987

Bryden et al., 2015; Morphine; Arthropathy
0.7781

Georgieva et al., 2019; Pregabalin; Spinal cord injury
1.7483

Gould et al., 2016; Celecoxib; Somatic inflammation
0.9191

Gould et al., 2016; Celecoxib; Somatic inflammation
0.3905

Gould et al., 2016; Celecoxib; Somatic inflammation -
0.1064

Gould et al., 2016; Gabapentin; Somatic inflammation -
0.0927

Gould et al., 2016; Gabapentin; Somatic inflammation -
1.2407

Gould et al., 2016; Gabapentin; Somatic inflammation -
0.1670

Gould et al., 2016; Ibuprofen; Somatic inflammation
1.8166

Gould et al., 2016; Indomethacin; Somatic inflammation
0.4873

Gould et al., 2016; Indomethacin; Somatic inflammation
0.3141

Gould et al., 2016; Indomethacin; Somatic inflammation
0.3659

Gould et al., 2016; Morphine; Somatic inflammation
0.4095

Gould et al., 2016; Morphine; Somatic inflammation
0.8877

Gould et al., 2016; Morphine; Somatic inflammation -
0.1140

Gould et al., 2016; Tramadol; Somatic inflammation
0.6187

Gould et al., 2016; Tramadol; Somatic inflammation -
0.5030

Gould et al., 2016; Tramadol; Somatic inflammation -
1.0887

Katri et al., 2019; Naproxen; Arthropathy -
0.3977

Rutten et al., 2014; Ibuprofen; Arthropathy
2.1467

Rutten et al., 2014; Ibuprofen; Arthropathy
2.3016

Rutten et al., 2014; Morphine; Arthropathy
1.4692

Rutten et al., 2014; Morphine; Arthropathy
1.2586

Rutten et al., 2014; Morphine; Arthropathy
1.1209

Rutten et al., 2014; Naproxen; Arthropathy
2.0364

Rutten et al., 2014; Naproxen; Arthropathy
0.9457

Rutten et al., 2014; Naproxen; Arthropathy
0.4620

Rutten et al., 2014; Naproxen; Arthropathy
1.0277

Rutten et al., 2014; Naproxen; Arthropathy
1.5052

Rutten et al., 2014; Pregabalin; Arthropathy
1.4343

Rutten et al., 2014; Pregabalin; Arthropathy
0.4772

Rutten et al., 2014; Pregabalin; Arthropathy
1.0427

Rutten et al., 2014; Pregabalin; Arthropathy
1.4475
Rutten et al., 2014; Pregabalin; Arthropathy
1.3090
Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
0.9613
Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
1.6818
Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced -
0.3123
Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced
0.1925
Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.5008
Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.8370
Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.8095
Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
0.3395
Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced -
0.1899
Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
0.0847
Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.7115
Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
2.0890
Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.1622
Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
0.2304
Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced -
0.0117
Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced -
0.1285
Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced -
0.2959
Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced -
4.4069
Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced -
0.5167
Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced -
4.6307

95%-CI

## Andrews et al., 2012; Ibuprofen; Somatic inflammation	[
0.4147; 2.6536]	
## Bryden et al., 2015; Celecoxib; Arthropathy	[-
1.0409; 1.7572]	
## Bryden et al., 2015; Celecoxib; Arthropathy	[-
0.6557; 2.2429]	
## Bryden et al., 2015; Celecoxib; Arthropathy	[-
0.7941; 2.0589]	
## Bryden et al., 2015; Gabapentin ; Arthropathy	[-
1.6843; 1.1047]	
## Bryden et al., 2015; Gabapentin; Arthropathy	[-
1.4187; 1.3534]	
## Bryden et al., 2015; Gabapentin; Arthropathy	[-
1.4227; 1.3494]	
## Bryden et al., 2015; Ibuprofen; Arthropathy	[-
0.8141; 1.8474]	
## Bryden et al., 2015; Ibuprofen; Arthropathy	[-
0.8953; 1.7512]	
## Bryden et al., 2015; Ibuprofen; Arthropathy	[-
1.0674; 1.5568]	
## Bryden et al., 2015; Morphine; Arthropathy	[-
0.9058; 2.2896]	
## Bryden et al., 2015; Morphine; Arthropathy	[-
1.3826; 1.7223]	
## Bryden et al., 2015; Morphine; Arthropathy	[-
0.8147; 2.4121]	
## Bryden et al., 2015; Morphine; Arthropathy	[-
0.8321; 2.3883]	
## Georgieva et al., 2019; Pregabalin; Spinal cord injury	[
0.6168; 2.8797]	
## Gould et al., 2016; Celecoxib; Somatic inflammation	[-
0.3453; 2.1834]	
## Gould et al., 2016; Celecoxib; Somatic inflammation	[-
0.8186; 1.5996]	
## Gould et al., 2016; Celecoxib; Somatic inflammation	[-
1.2767; 1.0640]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-
1.4001; 1.2147]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-
2.6518; 0.1703]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-
1.4595; 1.1255]	
## Gould et al., 2016; Ibuprofen; Somatic inflammation	[
0.6745; 2.9588]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-
0.5986; 1.5731]	

## Gould et al., 2016; Indomethacin; Somatic inflammation	[-
0.7090; 1.3371]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-
0.6809; 1.4126]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-
0.8008; 1.6198]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-
0.3525; 2.1278]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-
1.3116; 1.0837]	
## Gould et al., 2016; Tramadol; Somatic inflammation	[-
0.8061; 2.0435]	
## Gould et al., 2016; Tramadol; Somatic inflammation	[-
1.9147; 0.9087]	
## Gould et al., 2016; Tramadol; Somatic inflammation	[-
2.5918; 0.4143]	
## Katri et al., 2019; Naproxen; Arthropathy	[-
1.6503; 0.8548]	
## Rutten et al., 2014; Ibuprofen; Arthropathy	[
0.6613; 3.6320]	
## Rutten et al., 2014; Ibuprofen; Arthropathy	[
0.7703; 3.8329]	
## Rutten et al., 2014; Morphine; Arthropathy	[-
0.0213; 2.9598]	
## Rutten et al., 2014; Morphine; Arthropathy	[-
0.1853; 2.7025]	
## Rutten et al., 2014; Morphine; Arthropathy	[-
0.2957; 2.5375]	
## Rutten et al., 2014; Naproxen; Arthropathy	[
0.5825; 3.4902]	
## Rutten et al., 2014; Naproxen; Arthropathy	[-
0.2627; 2.1540]	
## Rutten et al., 2014; Naproxen; Arthropathy	[-
0.8639; 1.7880]	
## Rutten et al., 2014; Naproxen; Arthropathy	[-
0.3719; 2.4274]	
## Rutten et al., 2014; Naproxen; Arthropathy	[
0.0061; 3.0043]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[
0.1328; 2.7357]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[-
0.6745; 1.6288]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[-
0.3596; 2.4450]	
## Rutten et al., 2014; Pregabalin; Arthropathy	[-
0.0379; 2.9330]	

```

## Rutten et al., 2014; Pregabalin; Arthropathy [-
0.1455; 2.7636]
## Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury [-
0.0286; 1.9512]
## Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury [
0.5682; 2.7953]
## Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced [-
1.2256; 0.6011]
## Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced [-
0.7171; 1.1020]
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury [
0.2933; 2.7084]
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury [-
0.2057; 1.8797]
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury [-
0.2772; 1.8962]
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced [-
0.8511; 1.5301]
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced [-
1.3745; 0.9947]
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced [-
1.0977; 1.2672]
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury [
0.4562; 2.9668]
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury [
0.7381; 3.4399]
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury [
0.0213; 2.3031]
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced [-
0.6802; 1.1410]
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced [-
0.9190; 0.8956]
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced [-
1.0061; 0.7492]
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced [-
1.2026; 0.6108]
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced [-
6.6147; -2.1991]
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced [-
1.7186; 0.6853]
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced [-
6.9191; -2.3424]
##
%W(random)
## Andrews et al., 2012; Ibuprofen; Somatic inflammation
1.7

```

Bryden et al., 2015; Celecoxib; Arthropathy
1.3
Bryden et al., 2015; Celecoxib; Arthropathy
1.3
Bryden et al., 2015; Celecoxib; Arthropathy
1.3
Bryden et al., 2015; Gabapentin ; Arthropathy
1.3
Bryden et al., 2015; Gabapentin; Arthropathy
1.4
Bryden et al., 2015; Gabapentin; Arthropathy
1.4
Bryden et al., 2015; Ibuprofen; Arthropathy
1.4
Bryden et al., 2015; Ibuprofen; Arthropathy
1.4
Bryden et al., 2015; Ibuprofen; Arthropathy
1.4
Bryden et al., 2015; Morphine; Arthropathy
1.1
Bryden et al., 2015; Morphine; Arthropathy
1.2
Bryden et al., 2015; Morphine; Arthropathy
1.1
Bryden et al., 2015; Morphine; Arthropathy
1.1
Georgieva et al., 2019; Pregabalin; Spinal cord injury
1.7
Gould et al., 2016; Celecoxib; Somatic inflammation
1.5
Gould et al., 2016; Celecoxib; Somatic inflammation
1.6
Gould et al., 2016; Celecoxib; Somatic inflammation
1.6
Gould et al., 2016; Gabapentin; Somatic inflammation
1.4
Gould et al., 2016; Gabapentin; Somatic inflammation
1.3
Gould et al., 2016; Gabapentin; Somatic inflammation
1.5
Gould et al., 2016; Ibuprofen; Somatic inflammation
1.7
Gould et al., 2016; Indomethacin; Somatic inflammation
1.8
Gould et al., 2016; Indomethacin; Somatic inflammation
1.9

Gould et al., 2016; Indomethacin; Somatic inflammation
1.8

Gould et al., 2016; Morphine; Somatic inflammation
1.6

Gould et al., 2016; Morphine; Somatic inflammation
1.5

Gould et al., 2016; Morphine; Somatic inflammation
1.6

Gould et al., 2016; Tramadol; Somatic inflammation
1.3

Gould et al., 2016; Tramadol; Somatic inflammation
1.3

Gould et al., 2016; Tramadol; Somatic inflammation
1.2

Katri et al., 2019; Naproxen; Arthropathy
1.5

Rutten et al., 2014; Ibuprofen; Arthropathy
1.2

Rutten et al., 2014; Ibuprofen; Arthropathy
1.2

Rutten et al., 2014; Morphine; Arthropathy
1.2

Rutten et al., 2014; Morphine; Arthropathy
1.3

Rutten et al., 2014; Morphine; Arthropathy
1.3

Rutten et al., 2014; Naproxen; Arthropathy
1.3

Rutten et al., 2014; Naproxen; Arthropathy
1.6

Rutten et al., 2014; Naproxen; Arthropathy
1.4

Rutten et al., 2014; Naproxen; Arthropathy
1.3

Rutten et al., 2014; Naproxen; Arthropathy
1.2

Rutten et al., 2014; Pregabalin; Arthropathy
1.5

Rutten et al., 2014; Pregabalin; Arthropathy
1.7

Rutten et al., 2014; Pregabalin; Arthropathy
1.3

Rutten et al., 2014; Pregabalin; Arthropathy
1.2

Rutten et al., 2014; Pregabalin; Arthropathy
1.3

```

## Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
1.9
## Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
1.7
## Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced
2.1
## Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced
2.1
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.6
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.8
## Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.8
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
1.6
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
1.6
## Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced
1.6
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.5
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.4
## Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury
1.7
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
2.1
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
2.1
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
2.1
## Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced
2.1
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced
0.7
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced
1.6
## Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced
0.7
##
## Number of studies combined: k = 67
##
##          SMD          95%-CI    t    p-value
## Random effects model 0.5310 [ 0.2942; 0.7679] 4.48 < 0.0001
## Prediction interval          [-0.6325; 1.6946]

```

```
##
## Quantifying heterogeneity:
## tau^2 = 0.3254 [0.2529; 1.1659]; tau = 0.5704 [0.5029; 1.0798]
## I^2 = 50.2% [34.0%; 62.5%]; H = 1.42 [1.23; 1.63]
##
## Test of heterogeneity:
##      Q d.f.  p-value
## 132.59   66 < 0.0001
##
## Details on meta-analytical method:
## - Inverse variance method
## - Restricted maximum-likelihood estimator for tau^2
## - Q-profile method for confidence interval of tau^2 and tau
## - Hartung-Knapp adjustment for random effects model

# meta-analysis with removal of studies with high risk of bias
```

##	SMD
## Andrews et al., 2012; Ibuprofen; Somatic inflammation	1.5341
## Bryden et al., 2015; Celecoxib; Arthropathy	0.3582
## Bryden et al., 2015; Celecoxib; Arthropathy	0.7936
## Bryden et al., 2015; Celecoxib; Arthropathy	0.6324
## Bryden et al., 2015; Gabapentin ; Arthropathy	-0.2898
## Bryden et al., 2015; Gabapentin; Arthropathy	-0.0327
## Bryden et al., 2015; Gabapentin; Arthropathy	-0.0367
## Bryden et al., 2015; Ibuprofen; Arthropathy	0.5166
## Bryden et al., 2015; Ibuprofen; Arthropathy	0.4280
## Bryden et al., 2015; Ibuprofen; Arthropathy	0.2447
## Bryden et al., 2015; Morphine; Arthropathy	0.6919
## Bryden et al., 2015; Morphine; Arthropathy	0.1699
## Bryden et al., 2015; Morphine; Arthropathy	0.7987
## Bryden et al., 2015; Morphine; Arthropathy	0.7781
## Georgieva et al., 2019; Pregabalin; Spinal cord injury	2.3549
## Georgieva et al., 2019; Pregabalin; Spinal cord injury	1.7483
## Gould et al., 2016; Celecoxib; Somatic inflammation	0.9191
## Gould et al., 2016; Celecoxib; Somatic inflammation	0.3905
## Gould et al., 2016; Celecoxib; Somatic inflammation	-0.1064
## Gould et al., 2016; Gabapentin; Somatic inflammation	-0.0927
## Gould et al., 2016; Gabapentin; Somatic inflammation	-1.2407
## Gould et al., 2016; Gabapentin; Somatic inflammation	-0.1670
## Gould et al., 2016; Ibuprofen; Somatic inflammation	1.8166
## Gould et al., 2016; Indomethacin; Somatic inflammation	0.4873
## Gould et al., 2016; Indomethacin; Somatic inflammation	0.3141
## Gould et al., 2016; Indomethacin; Somatic inflammation	0.3659
## Gould et al., 2016; Morphine; Somatic inflammation	0.4095
## Gould et al., 2016; Morphine; Somatic inflammation	0.8877
## Gould et al., 2016; Morphine; Somatic inflammation	-0.1140
## Gould et al., 2016; Tramadol; Somatic inflammation	0.6187
## Gould et al., 2016; Tramadol; Somatic inflammation	-0.5030
## Gould et al., 2016; Tramadol; Somatic inflammation	-1.0887
## Katri et al., 2019; Naproxen; Arthropathy	-0.3977
## Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury	1.8393

##

95%-CI

## Andrews et al., 2012; Ibuprofen; Somatic inflammation	[0.4147; 2.6536]
## Bryden et al., 2015; Celecoxib; Arthropathy	[-1.0409; 1.7572]
## Bryden et al., 2015; Celecoxib; Arthropathy	[-0.6557; 2.2429]
## Bryden et al., 2015; Celecoxib; Arthropathy	[-0.7941; 2.0589]
## Bryden et al., 2015; Gabapentin ; Arthropathy	[-1.6843;

1.1047]	
## Bryden et al., 2015; Gabapentin; Arthropathy	[-1.4187;
1.3534]	
## Bryden et al., 2015; Gabapentin; Arthropathy	[-1.4227;
1.3494]	
## Bryden et al., 2015; Ibuprofen; Arthropathy	[-0.8141;
1.8474]	
## Bryden et al., 2015; Ibuprofen; Arthropathy	[-0.8953;
1.7512]	
## Bryden et al., 2015; Ibuprofen; Arthropathy	[-1.0674;
1.5568]	
## Bryden et al., 2015; Morphine; Arthropathy	[-0.9058;
2.2896]	
## Bryden et al., 2015; Morphine; Arthropathy	[-1.3826;
1.7223]	
## Bryden et al., 2015; Morphine; Arthropathy	[-0.8147;
2.4121]	
## Bryden et al., 2015; Morphine; Arthropathy	[-0.8321;
2.3883]	
## Georgieva et al., 2019; Pregabalin; Spinal cord injury	[1.0988;
3.6110]	
## Georgieva et al., 2019; Pregabalin; Spinal cord injury	[0.6168;
2.8797]	
## Gould et al., 2016; Celecoxib; Somatic inflammation	[-0.3453;
2.1834]	
## Gould et al., 2016; Celecoxib; Somatic inflammation	[-0.8186;
1.5996]	
## Gould et al., 2016; Celecoxib; Somatic inflammation	[-1.2767;
1.0640]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-1.4001;
1.2147]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-2.6518;
0.1703]	
## Gould et al., 2016; Gabapentin; Somatic inflammation	[-1.4595;
1.1255]	
## Gould et al., 2016; Ibuprofen; Somatic inflammation	[0.6745;
2.9588]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-0.5986;
1.5731]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-0.7090;
1.3371]	
## Gould et al., 2016; Indomethacin; Somatic inflammation	[-0.6809;
1.4126]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-0.8008;
1.6198]	
## Gould et al., 2016; Morphine; Somatic inflammation	[-0.3525;

2.1278]

Gould et al., 2016; Morphine; Somatic inflammation [-1.3116; 1.0837]

Gould et al., 2016; Tramadol; Somatic inflammation [-0.8061; 2.0435]

Gould et al., 2016; Tramadol; Somatic inflammation [-1.9147; 0.9087]

Gould et al., 2016; Tramadol; Somatic inflammation [-2.5918; 0.4143]

Katri et al., 2019; Naproxen; Arthropathy [-1.6503; 0.8548]

Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury [0.8574; 2.8212]

##

%W(random)

Andrews et al., 2012; Ibuprofen; Somatic inflammation 3.5

Bryden et al., 2015; Celecoxib; Arthropathy 2.6

Bryden et al., 2015; Celecoxib; Arthropathy 2.5

Bryden et al., 2015; Celecoxib; Arthropathy 2.6

Bryden et al., 2015; Gabapentin ; Arthropathy 2.7

Bryden et al., 2015; Gabapentin; Arthropathy 2.7

Bryden et al., 2015; Gabapentin; Arthropathy 2.7

Bryden et al., 2015; Ibuprofen; Arthropathy 2.8

Bryden et al., 2015; Ibuprofen; Arthropathy 2.9

Bryden et al., 2015; Ibuprofen; Arthropathy 2.9

Bryden et al., 2015; Morphine; Arthropathy 2.2

Bryden et al., 2015; Morphine; Arthropathy 2.3

Bryden et al., 2015; Morphine; Arthropathy 2.2

Bryden et al., 2015; Morphine; Arthropathy 2.2

Georgieva et al., 2019; Pregabalin; Spinal cord injury 3.0

Georgieva et al., 2019; Pregabalin; Spinal cord injury

```

3.5
## Gould et al., 2016; Celecoxib; Somatic inflammation
3.0
## Gould et al., 2016; Celecoxib; Somatic inflammation
3.2
## Gould et al., 2016; Celecoxib; Somatic inflammation
3.3
## Gould et al., 2016; Gabapentin; Somatic inflammation
2.9
## Gould et al., 2016; Gabapentin; Somatic inflammation
2.6
## Gould et al., 2016; Gabapentin; Somatic inflammation
2.9
## Gould et al., 2016; Ibuprofen; Somatic inflammation
3.4
## Gould et al., 2016; Indomethacin; Somatic inflammation
3.6
## Gould et al., 2016; Indomethacin; Somatic inflammation
3.9
## Gould et al., 2016; Indomethacin; Somatic inflammation
3.8
## Gould et al., 2016; Morphine; Somatic inflammation
3.2
## Gould et al., 2016; Morphine; Somatic inflammation
3.1
## Gould et al., 2016; Morphine; Somatic inflammation
3.2
## Gould et al., 2016; Tramadol; Somatic inflammation
2.6
## Gould et al., 2016; Tramadol; Somatic inflammation
2.6
## Gould et al., 2016; Tramadol; Somatic inflammation
2.4
## Katri et al., 2019; Naproxen; Arthropathy
3.1
## Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
4.0
##
## Number of studies combined: k = 34
##
##           SMD           95%-CI      t p-value
## Random effects model 0.4870 [ 0.2075; 0.7665] 3.55  0.0012
## Prediction interval      [-0.5566; 1.5307]
##
## Quantifying heterogeneity:
## tau^2 = 0.2437 [0.0003; 0.6583]; tau = 0.4936 [0.0174; 0.8113]

```

```
## I^2 = 35.0% [1.1%; 57.3%]; H = 1.24 [1.01; 1.53]
##
## Test of heterogeneity:
##      Q d.f. p-value
## 50.77  33  0.0248
##
## Details on meta-analytical method:
## - Inverse variance method
## - Restricted maximum-likelihood estimator for tau^2
## - Q-profile method for confidence interval of tau^2 and tau
## - Hartung-Knapp adjustment for random effects model
```

```
# meta-analysis based on “excluding studies that reported burrowing
as a primary outcome measure from those reporting it as a secondary
outcome measure”
```

The sensitivity test based on “excluding studies that reported burrowing as a primary outcome measure from those reporting it as a secondary outcome measure” was not possible as only five studies declared such information.

```
# influence analysis
```

Leave-One-Out Analysis (Sorted by I2)

##

Effect

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.2 0.616

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced 0.616

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury 0.555

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1 0.605

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury 0.558

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2 0.601

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1 0.561

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.1 0.560

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation 0.561

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1 0.562

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy 0.562

Omitting Rutten et al., 2014; Naproxen; Arthropathy 0.563

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury.1 0.563

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced 0.599

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.3 0.598

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.1 0.598

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury 0.564

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation 0.565

Omitting Katri et al., 2019; Naproxen; Arthropathy 0.595

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.2 0.595

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1 0.595

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.567

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
0.568

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1 0.592

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
0.592

Omitting Rutten et al., 2014; Morphine; Arthropathy
0.570

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
0.569

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 0.593

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
0.592

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
0.592

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
0.592

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
0.570

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2 0.571

Omitting Bryden et al., 2015; Gabapentin; Arthropathy
0.589

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
0.589

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
0.590

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.572

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.571

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 0.588

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.574

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.575

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.574

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.573

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 0.588

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced 0.587

Omitting Bryden et al., 2015; Celecoxib; Arthropathy 0.583

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1 0.578

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2 0.585

Omitting Bryden et al., 2015; Morphine; Arthropathy.1 0.585

Omitting Bryden et al., 2015; Morphine; Arthropathy.2 0.578

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation 0.576

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1 0.583

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1 0.585

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2 0.584

Omitting Gould et al., 2016; Morphine; Somatic inflammation 0.583

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1 0.576

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1 0.575

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.1 0.576

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.2 0.577

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced 0.584

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2 0.580

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy 0.581

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1 0.583

Omitting Bryden et al., 2015; Morphine; Arthropathy 0.579

Omitting Bryden et al., 2015; Morphine; Arthropathy.3 0.578

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation 0.582

Omitting Gould et al., 2016; Tramadol; Somatic inflammation 0.580

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
0.582

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
0.582

LLCI

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2 0.397

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced 0.397

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.317

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
0.367

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.316

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
0.361

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.321

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1 0.320

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
0.319

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
0.319

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
0.321

Omitting Rutten et al., 2014; Naproxen; Arthropathy
0.321

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 0.320

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 0.355

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3 0.354

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1 0.355

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury 0.321

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
0.321

Omitting Katri et al., 2019; Naproxen; Arthropathy
0.352

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2 0.350

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
0.352

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.323

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
0.324

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1 0.347

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
0.348

Omitting Rutten et al., 2014; Morphine; Arthropathy
0.326

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
0.326

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 0.348

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
0.347

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
0.347

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
0.347

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
0.326

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2 0.326

Omitting Bryden et al., 2015; Gabapentin; Arthropathy
0.344

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
0.344

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
0.346

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.327

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.327

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 0.342

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.328

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.329

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.329

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.327

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.2 0.343

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced 0.341

Omitting Bryden et al., 2015; Celecoxib; Arthropathy 0.338

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1 0.332

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2 0.340

Omitting Bryden et al., 2015; Morphine; Arthropathy.1 0.340

Omitting Bryden et al., 2015; Morphine; Arthropathy.2 0.333

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation 0.330

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1 0.337

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1 0.339

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2 0.338

Omitting Gould et al., 2016; Morphine; Somatic inflammation 0.337

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1 0.330

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1 0.329

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.1 0.330

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.2 0.330

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced 0.338

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2 0.334

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy 0.336

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1 0.337

Omitting Bryden et al., 2015; Morphine; Arthropathy 0.334

Omitting Bryden et al., 2015; Morphine; Arthropathy.3 0.333

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation 0.336

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.334

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
0.336

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
0.336

##

ULCI

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2 0.834

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced 0.835

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.793

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
0.844

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.799

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
0.842

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.801

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1 0.801

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
0.803

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
0.804

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
0.803

Omitting Rutten et al., 2014; Naproxen; Arthropathy
0.804

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 0.805

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 0.842

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3 0.842

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1 0.841

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury 0.807

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
0.809

Omitting Katri et al., 2019; Naproxen; Arthropathy
0.839

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.2 0.840

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1 0.838

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury 0.810

Omitting Rutten et al., 2014; Pregabalin; Arthropathy 0.813

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.1 0.838

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy 0.836

Omitting Rutten et al., 2014; Morphine; Arthropathy 0.814

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4 0.813

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.1 0.837

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2 0.836

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2 0.836

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2 0.836

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3 0.814

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.2 0.816

Omitting Bryden et al., 2015; Gabapentin; Arthropathy 0.834

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1 0.834

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation 0.835

Omitting Rutten et al., 2014; Morphine; Arthropathy.1 0.817

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4 0.816

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced.1 0.834

Omitting Rutten et al., 2014; Morphine; Arthropathy.2 0.819

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3 0.820

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2 0.820

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury 0.820

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.2 0.834

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced 0.834

Omitting Bryden et al., 2015; Celecoxib; Arthropathy 0.829

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1 0.823

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2 0.831

Omitting Bryden et al., 2015; Morphine; Arthropathy.1 0.831

Omitting Bryden et al., 2015; Morphine; Arthropathy.2 0.823

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation 0.821

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1 0.829

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1 0.831

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2 0.830

Omitting Gould et al., 2016; Morphine; Somatic inflammation 0.829

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1 0.822

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1 0.821

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.1 0.822

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.2 0.823

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced 0.830

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2 0.825

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy 0.827

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1 0.828

Omitting Bryden et al., 2015; Morphine; Arthropathy 0.825

Omitting Bryden et al., 2015; Morphine; Arthropathy.3 0.824

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
0.828

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.826

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
0.828

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
0.828

I2

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2 0.473

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced 0.474

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.519

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
0.524

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.524

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
0.529

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.529

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1 0.529

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
0.530

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
0.531

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
0.531

Omitting Rutten et al., 2014; Naproxen; Arthropathy
0.532

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 0.532

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 0.533

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3 0.533

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1 0.534

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury 0.535

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
0.536

Omitting Katri et al., 2019; Naproxen; Arthropathy
0.537

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2 0.537

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
0.538

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.538

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
0.539

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1 0.539

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
0.540

Omitting Rutten et al., 2014; Morphine; Arthropathy
0.540

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
0.540

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 0.540

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
0.541

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
0.541

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
0.541

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
0.541

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2 0.541

Omitting Bryden et al., 2015; Gabapentin; Arthropathy
0.542

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
0.542

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
0.542

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.542

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.542

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 0.542

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.543

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.543

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.543

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.543

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 0.543

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced 0.543

Omitting Bryden et al., 2015; Celecoxib; Arthropathy
0.544

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1
0.544

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
0.544

Omitting Bryden et al., 2015; Morphine; Arthropathy.1
0.544

Omitting Bryden et al., 2015; Morphine; Arthropathy.2
0.544

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
0.544

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
0.544

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
0.544

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
0.544

Omitting Gould et al., 2016; Morphine; Somatic inflammation
0.544

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
0.544

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
0.544

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 0.544

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 0.544

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced 0.544

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2
0.545

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy
0.545

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1
0.545

Omitting Bryden et al., 2015; Morphine; Arthropathy
0.545

```

## Omitting Bryden et al., 2015; Morphine; Arthropathy.3
0.545
## Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
0.545
## Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.545
## Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
0.545
## Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
0.545
##
##
## Influence Diagnostics
## -----
##
rstudent
## Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
1.127
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy
-0.232
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1
0.218
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2
0.054
## Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
-0.917
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy
-0.646
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
-0.650
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy
-0.069
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1
-0.164
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
-0.364
## Omitting Bryden et al., 2015; Morphine; Arthropathy
0.108
## Omitting Bryden et al., 2015; Morphine; Arthropathy.1
-0.405
## Omitting Bryden et al., 2015; Morphine; Arthropathy.2
0.210
## Omitting Bryden et al., 2015; Morphine; Arthropathy.3
0.190
## Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
2.035

```

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
1.384

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
0.373

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
-0.214

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
-0.791

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
-0.733

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
-1.949

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
-0.820

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
1.462

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
-0.110

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
-0.323

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
-0.257

Omitting Gould et al., 2016; Morphine; Somatic inflammation
-0.192

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
0.342

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
-0.791

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.039

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
-1.138

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
-1.707

Omitting Katri et al., 2019; Naproxen; Arthropathy
-1.096

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
1.604

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
1.608

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
1.738

Omitting Rutten et al., 2014; Morphine; Arthropathy
0.900

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.698

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.562

Omitting Rutten et al., 2014; Naproxen; Arthropathy
1.511

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
0.412

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
-0.127

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.468

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
0.934

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
0.933

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
-0.119

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.483

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
0.880

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.747

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.468

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 1.312

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced -1.151

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 -0.492

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.048

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 0.308

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 0.271

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced -0.273

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 -0.883

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 -0.566

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury 1.268

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1 1.640

```

## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2      0.676
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced      -0.443
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1    -0.755
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2    -0.919
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3    -1.132
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced      -3.982
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1    -1.260
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2    -4.038
##
dffits
## Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
0.145
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy
-0.025
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1
0.027
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2
0.009
## Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
-0.106
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy
-0.074
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
-0.074
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy
-0.006
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1
-0.017
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
-0.041
## Omitting Bryden et al., 2015; Morphine; Arthropathy
0.014
## Omitting Bryden et al., 2015; Morphine; Arthropathy.1
-0.042
## Omitting Bryden et al., 2015; Morphine; Arthropathy.2
0.024
## Omitting Bryden et al., 2015; Morphine; Arthropathy.3
0.022

```

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.240

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
0.175

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
0.048

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
-0.024

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
-0.099

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
-0.087

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
-0.228

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
-0.098

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
0.184

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
-0.011

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
-0.040

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
-0.031

Omitting Gould et al., 2016; Morphine; Somatic inflammation
-0.021

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
0.044

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
-0.098

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.007

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
-0.131

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
-0.192

Omitting Katri et al., 2019; Naproxen; Arthropathy
-0.135

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.215

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
0.175

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.185

Omitting Rutten et al., 2014; Morphine; Arthropathy
0.101

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.080

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.066

Omitting Rutten et al., 2014; Naproxen; Arthropathy
0.167

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
0.054

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
-0.013

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.056

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
0.104

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
0.112

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
-0.012

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.058

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
0.099

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.085

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.066

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 0.168

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced -0.163

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 -0.066

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.130

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 0.044

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 0.038

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced -0.032

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 -0.110

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 -0.069

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury 0.153

```

## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1      0.188
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2      0.088
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced      -0.059
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1    -0.104
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2    -0.130
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3    -0.160
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced      -0.331
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1    -0.159
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2    -0.326
##
cook.d
## Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
0.021
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy
0.001
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1
0.001
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2
0.000
## Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
0.011
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy
0.005
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
0.006
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy
0.000
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1
0.000
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
0.002
## Omitting Bryden et al., 2015; Morphine; Arthropathy
0.000
## Omitting Bryden et al., 2015; Morphine; Arthropathy.1
0.002
## Omitting Bryden et al., 2015; Morphine; Arthropathy.2
0.001

```

Omitting Bryden et al., 2015; Morphine; Arthropathy.3
0.000

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.055

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
0.030

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
0.002

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
0.001

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
0.010

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
0.008

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
0.050

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
0.010

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
0.033

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
0.000

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
0.002

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
0.001

Omitting Gould et al., 2016; Morphine; Somatic inflammation
0.000

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
0.002

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
0.010

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.000

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
0.017

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
0.036

Omitting Katri et al., 2019; Naproxen; Arthropathy
0.018

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.044

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
0.030

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.033

Omitting Rutten et al., 2014; Morphine; Arthropathy
0.010

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.007

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.004

Omitting Rutten et al., 2014; Naproxen; Arthropathy
0.027

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
0.003

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
0.000

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.003

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
0.011

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
0.013

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
0.000

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.003

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
0.010

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.007

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.004

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 0.028

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 0.026

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 0.004

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.017

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 0.002

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 0.001

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced 0.001

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 0.012

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 0.005

```

## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury      0.023
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1    0.034
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2    0.008
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced     0.004
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1   0.011
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2   0.017
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3   0.025
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced     0.104
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1   0.025
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2   0.101
##
cov.r
## Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
1.011
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy
1.030
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1
1.029
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2
1.031
## Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
1.016
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy
1.023
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
1.023
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy
1.033
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1
1.033
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
1.031
## Omitting Bryden et al., 2015; Morphine; Arthropathy
1.027
## Omitting Bryden et al., 2015; Morphine; Arthropathy.1
1.025

```

Omitting Bryden et al., 2015; Morphine; Arthropathy.2
1.026

Omitting Bryden et al., 2015; Morphine; Arthropathy.3
1.026

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.958

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
0.998

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
1.032

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
1.035

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
1.023

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
1.023

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
0.966

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
1.020

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
0.993

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
1.040

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
1.039

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
1.040

Omitting Gould et al., 2016; Morphine; Somatic inflammation
1.035

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
1.033

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
1.023

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
1.031

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
1.007

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
0.982

Omitting Katri et al., 2019; Naproxen; Arthropathy
1.010

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.982

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
0.988

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.982

Omitting Rutten et al., 2014; Morphine; Arthropathy
1.016

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
1.022

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
1.026

Omitting Rutten et al., 2014; Naproxen; Arthropathy
0.993

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
1.033

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
1.033

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
1.028

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
1.015

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
1.017

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
1.038

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
1.027

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
1.017

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
1.021

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 1.038

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 1.002

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 1.010

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 1.039

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.014

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 1.039

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 1.039

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced 1.035

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 1.020

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.2 1.030

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury 1.004

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.1 0.985

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.2 1.029

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced 1.040

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.1 1.030

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.2 1.023

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.3 1.011

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced 0.889

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.1 1.003

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.2 0.892

##

QE.del

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation 144.295

Omitting Bryden et al., 2015; Celecoxib; Arthropathy 147.056

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1 147.065

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2 147.146

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy 145.649

Omitting Bryden et al., 2015; Gabapentin; Arthropathy 146.399

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1 146.389

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy 147.144

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1 147.102

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2 146.902

Omitting Bryden et al., 2015; Morphine; Arthropathy 147.132

Omitting Bryden et al., 2015; Morphine; Arthropathy.1
146.885

Omitting Bryden et al., 2015; Morphine; Arthropathy.2
147.079

Omitting Bryden et al., 2015; Morphine; Arthropathy.3
147.092

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
139.350

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
142.966

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
146.867

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
147.059

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
145.819

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
146.130

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
140.703

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
145.861

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
142.551

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
147.125

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
146.892

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
146.992

Omitting Gould et al., 2016; Morphine; Somatic inflammation
147.077

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
146.908

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
145.852

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
147.148

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
144.877

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
142.386

Omitting Katri et al., 2019; Naproxen; Arthropathy
144.791

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
140.659

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
142.821

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
142.235

Omitting Rutten et al., 2014; Morphine; Arthropathy
145.763

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
146.287

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
146.580

Omitting Rutten et al., 2014; Naproxen; Arthropathy
143.242

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
146.789

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
147.122

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
146.749

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
145.666

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
145.464

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
147.122

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
146.724

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
145.820

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
146.169

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 146.561

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 143.305

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 143.408

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 146.445

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
144.871

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 146.909

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 146.973

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced 146.996

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.1 145.515

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.2 146.474

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury 143.972

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.1 142.283

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.2 146.125

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced 146.579

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.1 145.488

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.2 144.594

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.3 143.491

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced 127.485

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.1 143.920

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.2 127.170

hat

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation 0.016

Omitting Bryden et al., 2015; Celecoxib; Arthropathy 0.013

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1 0.013

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2 0.013

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy 0.013

Omitting Bryden et al., 2015; Gabapentin; Arthropathy 0.013

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1 0.013

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy 0.014

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1 0.014

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2 0.014

Omitting Bryden et al., 2015; Morphine; Arthropathy
0.011

Omitting Bryden et al., 2015; Morphine; Arthropathy.1
0.012

Omitting Bryden et al., 2015; Morphine; Arthropathy.2
0.011

Omitting Bryden et al., 2015; Morphine; Arthropathy.3
0.011

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.015

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
0.016

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
0.015

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
0.015

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
0.016

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
0.014

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
0.013

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
0.014

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
0.016

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
0.017

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
0.018

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
0.017

Omitting Gould et al., 2016; Morphine; Somatic inflammation
0.015

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
0.015

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
0.015

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.013

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
0.013

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
0.012

Omitting Katri et al., 2019; Naproxen; Arthropathy
0.015

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.018

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
0.012

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.012

Omitting Rutten et al., 2014; Morphine; Arthropathy
0.012

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.013

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.013

Omitting Rutten et al., 2014; Naproxen; Arthropathy
0.013

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
0.015

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
0.014

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.013

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
0.012

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
0.014

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
0.016

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.013

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
0.012

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.013

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.018

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 0.016

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 0.019

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 0.019

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
0.015

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 0.017

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 0.017

```

## Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced 0.015
## Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 0.016
## Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 0.016
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury 0.015
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1 0.014
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2 0.016
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced 0.019
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1 0.019
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2 0.020
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3 0.019
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced 0.007
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1 0.015
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2 0.007
##
weight
## Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
1.637
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy
1.309
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1
1.258
## Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2
1.281
## Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
1.314
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy
1.323
## Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
1.323
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy
1.382
## Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1
1.391

```

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
1.403

Omitting Bryden et al., 2015; Morphine; Arthropathy
1.119

Omitting Bryden et al., 2015; Morphine; Arthropathy.1
1.159

Omitting Bryden et al., 2015; Morphine; Arthropathy.2
1.106

Omitting Bryden et al., 2015; Morphine; Arthropathy.3
1.108

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
1.467

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
1.622

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
1.458

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
1.524

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
1.572

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
1.408

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
1.296

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
1.425

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
1.608

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
1.682

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
1.767

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
1.735

Omitting Gould et al., 2016; Morphine; Somatic inflammation
1.522

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
1.486

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
1.538

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
1.282

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
1.296

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
1.205

Omitting Katri et al., 2019; Naproxen; Arthropathy
1.472

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
1.825

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
1.222

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
1.179

Omitting Rutten et al., 2014; Morphine; Arthropathy
1.217

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
1.263

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
1.291

Omitting Rutten et al., 2014; Naproxen; Arthropathy
1.253

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
1.525

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
1.388

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
1.308

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
1.209

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
1.415

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
1.596

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
1.306

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
1.222

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
1.252

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 1.814

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 1.645

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 1.924

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 1.930

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
1.526

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 1.740

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.2 1.680

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced 1.547

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.1 1.554

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.2 1.557

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury 1.468

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.1 1.360

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.2 1.609

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced 1.928

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.1 1.933

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.2 1.977

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.3 1.934

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced 0.715

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.1 1.533

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.2 0.677

##

infl

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation

Omitting Bryden et al., 2015; Celecoxib; Arthropathy

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy

Omitting Bryden et al., 2015; Gabapentin; Arthropathy

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2

Omitting Bryden et al., 2015; Morphine; Arthropathy

Omitting Bryden et al., 2015; Morphine; Arthropathy.1

Omitting Bryden et al., 2015; Morphine; Arthropathy.2

Omitting Bryden et al., 2015; Morphine; Arthropathy.3

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
Omitting Gould et al., 2016; Morphine; Somatic inflammation
Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
Omitting Gould et al., 2016; Tramadol; Somatic inflammation
Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
Omitting Katri et al., 2019; Naproxen; Arthropathy
Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
Omitting Rutten et al., 2014; Morphine; Arthropathy
Omitting Rutten et al., 2014; Morphine; Arthropathy.1
Omitting Rutten et al., 2014; Morphine; Arthropathy.2
Omitting Rutten et al., 2014; Naproxen; Arthropathy
Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
Omitting Rutten et al., 2014; Pregabalin; Arthropathy
Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury
Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury.1
Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced
Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced.1
Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.1
Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.2

```

## Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced
## Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1
## Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2
##
##
## Baujat Diagnostics (sorted by Heterogeneity Contribution)
## -----
##
HetContrib
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2      19.897
## Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced      19.578
## Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
7.693
## Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
6.377
## Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
6.345
## Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
4.871
## Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.1      4.810

```

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2
4.720

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation
4.523

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy
4.288

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1
4.114

Omitting Rutten et al., 2014; Naproxen; Arthropathy
3.869

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury.1 3.779

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced 3.645

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.3 3.563

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.1 3.183

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury 3.136

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation
2.806

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.2 2.485

Omitting Katri et al., 2019; Naproxen; Arthropathy
2.328

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1
2.250

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury
2.247

Omitting Rutten et al., 2014; Pregabalin; Arthropathy
1.665

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced.1 1.619

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.1 1.611

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy
1.485

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4
1.472

Omitting Rutten et al., 2014; Morphine; Arthropathy
1.375

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3
1.318

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
1.311

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
1.280

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
1.274

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
1.009

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2 1.009

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.972

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.855

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
0.754

Omitting Bryden et al., 2015; Gabapentin; Arthropathy
0.744

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 0.688

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 0.667

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.578

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.566

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced 0.558

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.423

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.398

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
0.357

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
0.281

Omitting Bryden et al., 2015; Morphine; Arthropathy.1
0.265

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
0.254

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
0.247

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
0.241

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 0.238

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.2 0.175

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2
0.157

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced 0.153

Omitting Bryden et al., 2015; Celecoxib; Arthropathy
0.094

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1
0.092

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1
0.086

Omitting Gould et al., 2016; Morphine; Somatic inflammation
0.074

Omitting Bryden et al., 2015; Morphine; Arthropathy.2
0.072

Omitting Bryden et al., 2015; Morphine; Arthropathy.3
0.060

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1
0.049

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2
0.029

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1
0.029

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation
0.026

Omitting Bryden et al., 2015; Morphine; Arthropathy
0.020

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy
0.008

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2
0.006

Omitting Gould et al., 2016; Tramadol; Somatic inflammation
0.003

InfluenceEffectSize

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced.2 0.084

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-
induced 0.089

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury
0.109

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.1
0.071

Omitting Lau et al., 2013; Pregabalin; Neuropathy: Trauma Injury
0.148

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy.1
0.046

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury.1 0.059

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.2 0.046

Omitting Gould et al., 2016; Ibuprofen; Somatic inflammation 0.078

Omitting Rutten et al., 2014; Ibuprofen; Arthropathy 0.043

Omitting Georgieva et al., 2019; Pregabalin; Spinal cord injury.1 0.072

Omitting Rutten et al., 2014; Naproxen; Arthropathy 0.041

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma Injury.1 0.068

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-induced 0.099

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.3 0.098

Omitting Rutten et al., 2018; Tramadol; Neuropathy: Diabetic-induced.1 0.049

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma Injury 0.044

Omitting Andrews et al., 2012; Ibuprofen; Somatic inflammation 0.050

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.2 0.073

Omitting Katri et al., 2019; Naproxen; Arthropathy 0.033

Omitting Gould et al., 2016; Tramadol; Somatic inflammation.1 0.025

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury 0.034

Omitting Rutten et al., 2014; Pregabalin; Arthropathy 0.022

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-induced.1 0.044

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced.1 0.026

Omitting Bryden et al., 2015; Gabapentin ; Arthropathy 0.017

Omitting Rutten et al., 2014; Naproxen; Arthropathy.4 0.015

Omitting Rutten et al., 2014; Morphine; Arthropathy 0.014

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.3 0.013

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.2
0.021

Omitting Gould et al., 2016; Morphine; Somatic inflammation.2
0.020

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation.2
0.017

Omitting Gould et al., 2016; Gabapentin; Somatic inflammation
0.013

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Trauma
Injury.2 0.017

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.4
0.010

Omitting Rutten et al., 2014; Morphine; Arthropathy.1
0.009

Omitting Bryden et al., 2015; Gabapentin; Arthropathy.1
0.009

Omitting Bryden et al., 2015; Gabapentin; Arthropathy
0.009

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Diabetic-
induced.1 0.019

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-
induced.2 0.011

Omitting Rutten et al., 2018; Gabapentin; Neuropathy: Trauma
Injury 0.013

Omitting Rutten et al., 2014; Morphine; Arthropathy.2
0.006

Omitting Rutten et al., 2018; Pregabalin; Neuropathy: Diabetic-
induced 0.015

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.2
0.005

Omitting Rutten et al., 2014; Naproxen; Arthropathy.3
0.005

Omitting Rutten et al., 2014; Naproxen; Arthropathy.1
0.005

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation
0.004

Omitting Bryden et al., 2015; Morphine; Arthropathy.1
0.002

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.1
0.005

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.2
0.003

Omitting Gould et al., 2016; Morphine; Somatic inflammation.1
0.003

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma
Injury.1 0.005

Omitting Rutten et al., 2018; Morphine; Neuropathy: Trauma Injury.2 0.003

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation.2 0.003

Omitting Rutten et al., 2018; Morphine; Neuropathy: Diabetic-induced 0.002

Omitting Bryden et al., 2015; Celecoxib; Arthropathy 0.001

Omitting Gould et al., 2016; Celecoxib; Somatic inflammation.1 0.001

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.1 0.001

Omitting Gould et al., 2016; Morphine; Somatic inflammation 0.001

Omitting Bryden et al., 2015; Morphine; Arthropathy.2 0.001

Omitting Bryden et al., 2015; Morphine; Arthropathy.3 0.001

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy.1 0.001

Omitting Rutten et al., 2014; Naproxen; Arthropathy.2 0.000

Omitting Rutten et al., 2014; Pregabalin; Arthropathy.1 0.000

Omitting Gould et al., 2016; Indomethacin; Somatic inflammation 0.001

Omitting Bryden et al., 2015; Morphine; Arthropathy 0.000

Omitting Bryden et al., 2015; Ibuprofen; Arthropathy 0.000

Omitting Bryden et al., 2015; Celecoxib; Arthropathy.2 0.000

Omitting Gould et al., 2016; Tramadol; Somatic inflammation 0.000

Table. The number of cohort-level comparisons and animals for study design characteristics used in mice modelling experiments.

	No. of studies	No. of reports	No. of cohort-level comparisons	No. of animals
Disease Model				
Neuropathy: Trauma injury	1	1	5	88
Cancer	4	4	4	109
Migraine	1	1	4	52
Somatic inflammation	1	1	2	34
Visceral inflammation	2	2	2	26
Complex regional pain syndrome	1	1	1	20
Dental injury	1	1	1	18
Lumbar intervertebral disc degeneration	1	1	1	39
Mucositis	1	1	1	16
Procedure-associated pain	1	1	1	11
Mouse Strain				
C57BL/6	9	9	10	209

Not reported	1	1	7	104
FVB/NJ	1	1	2	33
B6D2F1	1	1	1	16
Balb/c	1	1	1	33
ICR	1	1	1	18
Sex				
Female	8	8	12	188
Male	4	4	8	191
Not reported	2	2	2	34
Substrate Type				
Corncob bedding	2	2	12	194
Food pellet	4	4	4	97
Pebble	2	2	2	24
Not reported	2	2	2	26
Sand	1	1	1	33
Bedding material	1	1	1	39
Burrowing Outcome				
Amount displaced	11	11	21	402

Latency to burrow	1	1	1	11
-------------------	---	---	---	----

Table. The number of cohort-level comparisons and animals for study design characteristics used in mice intervention experiments.

	No. of studies	No. of reports	No. of cohort-level comparisons	No. of animals
Disease Model				
Procedure-associated pain	5	5	7	128
Nociplastic pain	1	1	4	44
Cancer	2	2	3	48
Visceral inflammation	1	1	2	30
Complex regional pain syndrome	1	1	1	9
Neuropathy: Trauma injury	1	1	1	16
Drug Class				
NSAID	3	3	5	96
Unknown mechanism of action	2	2	4	58
Gabapentinoid	2	2	3	38
Opioid	2	2	2	36
Bradykinin receptor antagonist	1	1	2	22

Antihyperglycaemic	1	1	1	9
Combined therapy	1	1	1	16
Mouse Strain				
C57BL/6	9	9	13	215
Swiss	1	1	4	44
Not reported	1	1	1	16
Sex				
Female	8	8	12	183
Male	1	1	4	44
Mixed	1	1	1	32
Not reported	1	1	1	16
Substrate Type				
Food pellet	6	6	11	172
Pebble	2	2	3	48
Corncob bedding	2	2	2	25
Not reported	1	1	2	30
Burrowing Outcome				
Amount displaced	6	6	11	147

Duration of burrowing	3	3	5	96
Latency to burrow	2	2	2	32

Study	Risk of bias domains						Overall
	D1	D2	D3	D4	D5	D6	
Whitaker et al., 2019							
Abdelhannan et al., 2019							
Andrews et al., 2012 – ICL							
Andrews et al., 2012 – Pfizer							
Andrews et al., 2019							
Boikel et al., 2019							
Burcoo et al., 2019							
Byden et al., 2015							
Charlier et al., 2020							
Charlier et al., 2018							
Christensen et al., 2016							
Das et al., 2017							
Das et al., 2020							
Deeure et al., 2018							
Duggert et al., 2017							
Evangelista-Vaz et al., 2018							
Georgieva et al., 2019							
Gould et al., 2016							
Griffiths et al., 2018							
Guimaraes et al., 2019							
Huang et al., 2013							
Jirikof et al., 2010							
Jirikof et al., 2013a							
Jirikof et al., 2013b							
Jirikof et al., 2012							
Jirikof et al., 2018							
Kerri et al., 2019a							
Kari et al., 2019b							
Lau et al., 2013							
Leung et al., 2019							
Morris et al., 2018							
Munilatharan et al., 2016							
Nolan et al., 2017							
Jirikof et al., 2015							
Pfeiffberger et al., 2015							
Safwan et al., 2019							
Rosato et al., 2018							
Ruten et al., 2014a							
Ruten et al., 2014b							
Ruten et al., 2018 – Gu							
Ruten et al., 2018 – Bl							
Kunzel et al., 2020							
Romero et al., 2020							
Shepherd et al., 2018							
Shi et al., 2018							
Siepen et al., 2019							
Smith et al., 2016							
Whitaker et al., 2015							
Wodarski et al., 2016 – ICL							
Wodarski et al., 2016 – HU							
Wodarski et al., 2016 – ANP							
Wodarski et al., 2016 – BP							
Wodarski et al., 2016 – Gu							
Wodarski et al., 2016 – UoM							
Wodarski et al., 2016 – EUUS							
Wodarski et al., 2016 – EUUS							
Van et al., 2015							

Domains:

- D1: Random group allocation
- D2: Allocation concealment
- D3: Blinding of outcome assessment
- D4: Sample size calculation
- D5: Predefined animal inclusion criteria
- D6: Animal exclusions

Judgement

- Low
- High
- Unclear

Table. Animal suppliers for experiments conducted in mouse strains.

Experiment Type	Strain	Animal Supplier	No. of k
Animal Modelling	C57BL/6	Jackson Laboratories	3
		Charles River	2
		Animal Resource Centre (Perth, Australia)	2
		Not reported	2
		In-house breeding facility (Fuellinsdorf, Switzerland)	1
	Not reported	Charles River	7
	FVB/NJ	Jackson Laboratories	2
	Balb/c	Envigo	1
	B6D2F1	Not reported	1
	ICR	BioLasco	1
Drug Intervention	C57BL/6	In-house breeding facility (University of Zurich)	5
		Animal Resource Centre (Perth, Australia)	3
		Not reported	3
		Charles River	2
		Jackson Laboratories	1
	Swiss	Not reported	4
	Not reported	Jackson Laboratories	1

Table. Animal suppliers for experiments conducted in rat strains.

Experiment Type	Strain	Animal Supplier	No. of k
Animal Modelling	Sprague Dawley	Charles River	16
		Janvier Laboratories	3
		Animal Resources Centre (Perth, Australia)	2
		Harlan Laboratories	2
		Not reported	2
		Laboratory Animal Services (University of Adelaide)	1
		Taconic	1
	Wistar	Charles River	7
		B&K Universal Ltd.	2
		Harlan Laboratories	1
		In-house breeding facility (University of Santa Maria)	1
	Wistar Hannover	Charles River	10
	LEW/CrlCrlj	Charles River	1
	Lewis	Envigo	1
	Zucker diabetic fatty (fa/fa) obese rat	Charles River	1

Drug Intervention	Sprague Dawley	Charles River	23
		Janvier Laboratories	19
		Harlan Laboratories	6
	Wistar Hannover	Charles River	17
	Zucker diabetic fatty (fa/fa) obese rat	Charles River	10
	Wistar	Charles River	6
		In-house breeding facility (University of Santa Maria)	1
	DA/Arc	Laboratory Animal Services (University of Adelaide)	4
	Lewis	Envigo	3

Table. The N range and its median of each mouse disease models used in animal modelling and drug intervention experiments

Disease Model – Animal Modelling	k	N Range	Median
Neuropathy: Trauma induced	5	15 - 22	18
Cancer	4	9 - 52	24
Migraine	4	12 - 14	13
Somatic inflammation	2	14 - 20	17
Visceral inflammation	2	11 - 15	13
Complex regional pain syndrome	1	20	20
Dental injury	1	18	18
Lumbar intervertebral disc degeneration	1	39	39
Mucositis	1	16	16
Procedure-associated pain	1	11	11

Disease Model – Drug Intervention	k	N Range	Median
Procedure-associated pain	7	16 - 32	16
Nociplastic pain	4	11	11
Cancer	3	14 - 20	14
Visceral inflammation	2	15	15
Complex regional pain syndrome	1	9	9
Neuropathy: Trauma induced	1	16	16

Table. The N range and its median of each rat disease models used in animal modelling and drug intervention experiments

Disease Model – Animal Modelling	k	N Range	Median
Somatic inflammation	19	8 - 32	18.5
Neuropathy: Trauma induced	13	6 - 37	20
Arthropathy	9	13 - 30	19
Procedure-associated pain	3	12 - 26	19
Cancer	1	50	50
Migraine	1	10	10
Mucositis	1	32	32
Neuropathy: Antiretroviral-induced	1	15	15
Neuropathy: Chemotherapy-induced	1	12	12
Neuropathy: Diabetic induced	1	29	29
Ultraviolet B and heat rekindling	1	16	16

Disease Model – Animal Modelling	k	N Range	Median
Arthropathy	35	10 - 22	12
Somatic inflammation	21	11 - 23	14
Neuropathy: Diabetic induced	12	15 - 21	17

Neuropathy: Trauma induced	10	15 - 26	15.5
Spinal cord injury	6	20 - 29	28
Mucositis	4	10	10
Procedure-associated pain	1	16	16

S11

Table. The Number of reports which reported relevant information on acclimatisation, animal husbandry and experimental conditions.

Items reported	Number of reports	%	Data
Animals given a time period to acclimatise	34	61	Median = 56 hr; Range = 1 – 504 hr
Number of animals housed per cage	36	64	Median = 3 Range = 1 – 6
Temperature of the housing environment	37	66	Median = 20°C; Range = 19 – 24°C
Humidity of the housing environment	27	48	Median = 45%; Range = 15 – 60%
Noise level of the housing environment	0	0	N/A
Number of light/dark cycle	51	91	Median = 12/12 hr; Range = 11/13 hr – 14/10 hr
In which phase, the burrowing assessment was conducted	42	75	Dark phase = 10 reports Light phase = 32 reports
Experimental lighting condition	14	25	Median = 30 lux; Range = 0.8 – 50 lux
Temperature during the burrowing assessment	11	20	Median = 22°C; Range = 19 – 20°C
Humidity during the burrowing assessment	10	18	Median = 45%; Range = 15 – 50%
Noise level during the burrowing assessment	1	2	Median = 45dB; Range = 45dB
Animals given access to food and/or water during the burrowing assessment	21	38	Food only = 1 report Water only = 1 report Food and water = 6 reports No access = 13 reports
Colour of the burrow tube	13	23	Transparent colour = 1 report Solid colour = 6 reports

			Tinted colour = 6 reports
Length of the burrow tube	45	80	Median = 32cm Range = 12.5 – 45cm
Diameter of the burrow tube	45	80	Median = 10cm Range = 5.1 – 20cm
Elevated height of the frontal open end of the burrow tube above the ground	37	66	Median = 6cm Range = 0 – 7cm

Table. A list of protocols that are referenced by the included studies.

Referenced protocol	Type of burrowing metric(s)	Cited No.
Deacon, 2006 ¹	Weight displaced	17
Andrews et al., 2012 ²	Weight displaced	15
Jirkof et al., 2010 ³	• Weight displaced • Latency to burrow • Duration of burrowing	7
Wodarski et al., 2016 ⁴	Weight displaced	4
Rutten et al., 2014 ⁵	Weight displaced	4
Jirkof et al., 2013 ⁶	Weight displaced	3
Rutten et al., 2014 ⁷	Weight displaced	3
Huang et al., 2013 ⁸	• Weight displaced • Latency to burrow	2
Das V et al., 2017 ⁹	Weight displaced	1
Deacon, 2009 ¹⁰	Weight displaced	1
Deacon, 2012 ¹¹	Weight displaced	1
Contet et al., 2001 ¹²	Weight displaced	1
Rutten et al., 2018 ¹³	Weight displaced	1
Deseure and Hans, 2018 ¹⁴	Weight displaced	1
Jirkof et al., 2014 ¹⁵	• Weight displaced • Latency to burrow • Duration of burrowing	1
Jirkof et al., 2012 ¹⁶	Weight displaced	1
Bryden et al., 2015 ¹⁷	Weight displaced	1
Gould et al., 2016 ¹⁸	Weight displaced	1

1. Deacon RMJ. Burrowing in rodents: A sensitive method for detecting behavioral dysfunction. *Nat Protoc.* 2006;1(1):118-121. doi:10.1038/nprot.2006.19

2. Andrews N, Legg E, Lisak D, et al. Spontaneous burrowing behaviour in the rat is reduced by peripheral nerve injury or inflammation associated pain. *Eur J Pain*. 2012;16(4):485-495. doi:10.1016/j.ejpain.2011.07.012
3. Jirkof P, Cesarovic N, Rettich A, Nicholls F, Seifert B, Arras M. Burrowing behavior as an indicator of post-laparotomy pain in mice. *Front Behav Neurosci*. 2010;4:165. doi:10.3389/fnbeh.2010.00165
4. Wodarski R, Delaney A, Ultenius C, et al. Cross-centre replication of suppressed burrowing behaviour as an ethologically relevant pain outcome measure in the rat: a prospective multicentre study. *Pain*. 2016;157(10):2350-2365. doi:10.1097/j.pain.0000000000000657
5. Rutten K, Schiene K, Robens A, et al. Burrowing as a non-reflex behavioural readout for analgesic action In a rat model of sub-chronic knee joint inflammation. *Eur J Pain (United Kingdom)*. 2014;18(2):204-212. doi:10.1002/j.1532-2149.2013.00358.x
6. Jirkof P, Leucht K, Cesarovic N, et al. Burrowing is a sensitive behavioural assay for monitoring general wellbeing during dextran sulfate sodium colitis in laboratory mice. *Lab Anim*. 2013;47(4):274-283. doi:10.1177/0023677213493409
7. Rutten K, Robens A, Read SJ, Christoph T. Pharmacological validation of a refined burrowing paradigm for prediction of analgesic efficacy in a rat model of sub-chronic knee joint inflammation. *Eur J Pain (United Kingdom)*. 2014;18(2):213-222. doi:10.1002/j.1532-2149.2013.00359.x
8. Huang W, Calvo M, Karu K, et al. A clinically relevant rodent model of the HIV antiretroviral drug stavudine induced painful peripheral neuropathy. *Pain*. 2013;154(4):560-575. doi:10.1016/j.pain.2012.12.023
9. Das V, Kroin JS, Moric M, Buvanendran A. Biochemical and Pharmacological Characterization of a Mice Model of Complex Regional Pain Syndrome. *Reg Anesth Pain Med*. 42(4):507-516. doi:10.1097/AAP.0000000000000622
10. Deacon RMJ. Burrowing: A sensitive behavioural assay, tested in five species of laboratory rodents. *Behav Brain Res*. 2009;200(1):128-133. doi:10.1016/j.bbr.2009.01.007
11. Deacon R. Assessing burrowing, nest construction, and hoarding in mice. *J Vis Exp*. 2012;(59):1-10. doi:10.3791/2607
12. Contet C, Rawlins JNP, Deacon RMJ. A comparison of 129S2/SvHsd and C57BL/6JOLA Hsd mice on a test battery assessing sensorimotor, affective and cognitive behaviours: Implications for the study of genetically modified mice. *Behav Brain Res*. 2001;124(1):33-46. doi:10.1016/S0166-4328(01)00231-5
13. Rutten K, Gould SA, Bryden L, Doods H, Christoph T, Pekcec A. Standard analgesics reverse burrowing deficits in a rat CCI model of neuropathic pain, but not in models of type 1 and type 2 diabetes-induced neuropathic pain. *Behav Brain Res*. 2018;350:129-138. doi:10.1016/j.bbr.2018.04.049
14. Deseure K, Hans G. Orofacial neuropathic pain reduces spontaneous burrowing behavior in rats. *Physiol Behav*. 2018;191:91-94. doi:10.1016/j.physbeh.2018.04.020
15. Jirkof P. Burrowing and nest building behavior as indicators of well-being in mice. *J Neurosci Methods*. 2014;234:139-146. doi:10.1016/j.jneumeth.2014.02.001

16. Jirkof P, Cesarovic N, Rettich A, Fleischmann T, Arras M. Individual housing of female mice: Influence on postsurgical behaviour and recovery. *Lab Anim.* 2012;46(4):325-334. doi:10.1258/la.2012.012027
17. Bryden LA, Nicholson JR, Doods H, Pekcec A. Deficits in spontaneous burrowing behavior in the rat bilateral monosodium iodoacetate model of osteoarthritis: an objective measure of pain-related behavior and analgesic efficacy. *Osteoarthr Cartil.* 2015;23(9):1605-1612. doi:10.1016/j.joca.2015.05.001
18. Gould SA, Doods H, Lamla T, Pekcec A. Pharmacological characterization of intraplantar Complete Freund's Adjuvant-induced burrowing deficits. *Behav Brain Res.* 2016;301:142-151. doi:10.1016/j.bbr.2015.12.019