

## Non-Technical Project Summary

Period of approval: Q2 April – June 2020

REFERENCE NUMBER	PROJECT TITLE	KEYWORDS	LINK TO NTPS
V001/2020Q2	Research on the effect of infant milk formula (IMF) processed by membrane filtration as an alternative to thermally processed IMF on growth and protein digestibility, using pigs	Digestibility; growth; infant milk formula; thermal processing; membrane filtration; pig	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v001_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v001_2020q2.pdf?sfvrsn=2</a>
V002/2020Q2	Research into the potential of microRNAs to delay or treat muscle wasting during ageing, amyotrophic lateral sclerosis (motor neurone disease), and cancer cachexia and critical illness in mouse models	Muscle wasting; ageing; cachexia; motor neurone disease; sarcopenia; critical illness, ICU, COVID-19, microRNA; antagomiR; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v002_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v002_2020q2.pdf?sfvrsn=2</a>
V003/2020Q2	Research project: identification of novel diagnostics and therapeutics in epilepsy using mice	Epilepsy; therapeutics; diagnostics; biomarker; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v003_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v003_2020q2.pdf?sfvrsn=2</a>
V004/2020Q2	COMBi VENTiLATE: a pilot research project into the safety, feasibility and efficacy of the use of a novel medical device to provide simultaneous invasive mechanical ventilation for COVID-19 patients, using pigs.	COVID-19; Acute Respiratory Distress Syndrome; ARDS; mechanical ventilation; pigs	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v004_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v004_2020q2.pdf?sfvrsn=2</a>
V005/2020Q2	Research project to determine the potency value of a novel neurotoxin substance using mice	Neurotoxin; potency test; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v005_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v005_2020q2.pdf?sfvrsn=2</a>

REFERENCE NUMBER	PROJECT TITLE	KEYWORDS	LINK TO NTPS
V006/2020Q2	Research project to determine the pharmacokinetics and/or bioequivalence of endo- and/or ectoparasiticides, following oral/topical/parenteral administration to cattle/sheep/pigs/horses	Pharmacokinetics; bioequivalence; safety; ectoparasiticides; endoparasiticides; bovine; ovine; porcine; equine	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v006_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v006_2020q2.pdf?sfvrsn=2</a>
V007/2020Q2	Batch Potency and Safety Testing of a licensed vaccine product in calves	Regulatory; vaccine; potency; safety; cattle	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v007_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v007_2020q2.pdf?sfvrsn=2</a>
V008/2020Q2	Research project for the development and testing of vaccines for fasciolosis (liver fluke disease) in sheep	Sheep; liver fluke; <i>Fasciola hepatica</i> ; parasite; vaccine	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v008_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v008_2020q2.pdf?sfvrsn=2</a>
V009/2020Q2	Research on the protective potential of a placenta protein in experimental stroke in mice	Mouse; stroke; placenta protein; immune response	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v009_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v009_2020q2.pdf?sfvrsn=2</a>
V010/2020Q2	On-farm research on the collection of methane measurements in sheep using portable accumulation chambers (PAC chambers)	Genetics; methane emissions; PAC chamber; on-farm data; sheep	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v010_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v010_2020q2.pdf?sfvrsn=2</a>
V011/2020Q2	Research project on the prevalence of equine Lyme disease exposure in Ireland	Horses, equine Lyme disease; Ireland; seroprevalence; tick-dense areas; <i>Borrelia burgdorferi</i>	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v011_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v011_2020q2.pdf?sfvrsn=2</a>
V012/2020Q2	Research study: Does grass type affect the growth rate, methane emissions, and parasite load of cattle and sheep when they are grazed together?	Cattle; sheep; lambs; multispecies swards; methane; growth rates; animal health; environment	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v012_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v012_2020q2.pdf?sfvrsn=2</a>

REFERENCE NUMBER	PROJECT TITLE	KEYWORDS	LINK TO NTPS
V013/2020Q2	Regulatory project to determine the potency value associated with the manufacture of specific neurotoxin products as required by the regulatory authorities	Neurotoxin; potency test; medicinal products; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v013_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v013_2020q2.pdf?sfvrsn=2</a>
V014/2020Q2	Research into a biomaterial-based therapeutic delivery platform to modulate neuroinflammation in a lysolecithin-induced demyelination mouse model	Mouse; Multiple sclerosis; spinal cord; demyelination; neuroinflammation; lysolecithin; hydrogel; neurodegeneration	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v014_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v014_2020q2.pdf?sfvrsn=2</a>
V015/2020Q2	Research into cellular and molecular mechanisms of neonatal seizures and paediatric epilepsies using mice	Epilepsy; Dravet syndrome; Angelman syndrome; Rett syndrome; hypoxia; microRNA; seizure; biomarkers; disease-modifying therapy; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v015_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v015_2020q2.pdf?sfvrsn=2</a>
V016/2020Q2	Research into the mechanisms underlying the susceptibility to early life stress-induced gut and brain dysfunction across the lifespan using rats	Rat; maternal separation; visceral pain; susceptibility; resilience; behaviour; probiotic; microbiota-gut-brain axis	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v016_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v016_2020q2.pdf?sfvrsn=2</a>
V017/2020Q2	A research project investigating the role of a novel protein in diseases associated with vascular dysfunction and inflammation using mice	Vascular dysfunction; sepsis; obesity; cancer; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v017_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v017_2020q2.pdf?sfvrsn=2</a>

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V018/2020Q2	Research project assessing the use of collagen-based biomaterials for tympanic membrane acute perforation repair using rats	Rat; tympanic membrane; eardrum; biomaterials; collagen; tissue engineering; tympanoplasty	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v018_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v018_2020q2.pdf?sfvrsn=2</a>
V019/2020Q2	Research into the effects of early life stress on neurodevelopmental outcomes in the rat: towards therapy for preterm adversity	Rat; chronic oxygen dysregulation; preterm birth; apnoea of prematurity; hospital acquired infection; neurodevelopment	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v019_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v019_2020q2.pdf?sfvrsn=2</a>
V020/2020Q2	Research to evaluate the effect varying pasture types on the feed intake, milk production, rumen fermentation, methane production and nitrogen utilisation of lactating dairy cows	Dairy cow; nitrogen; methane; multispecies swards; milk production; herb species	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v020_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v020_2020q2.pdf?sfvrsn=2</a>
V021/2020Q2	Research project validating an assay to detect bovine tuberculosis using cattle and training veterinarians in its use	Cows; quality control; bovine tuberculosis; teaching	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v021_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v021_2020q2.pdf?sfvrsn=2</a>
V022/2020Q2	Research comparing Irish and New Zealand sheep genetics (INZAC II) & strategies to mitigate greenhouse gas emissions from pasture based sheep systems	Genetics; methane emissions; feed intake; lamb growth performance; sheep	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v022_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v022_2020q2.pdf?sfvrsn=2</a>
V023/2020Q2	Regulatory project: determination of the potency value associated with the manufacture of specific neurotoxin products as required by the regulatory authorities using mice	Mouse; neurotoxin; potency test; medicinal products; comparability testing	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v023_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v023_2020q2.pdf?sfvrsn=2</a>

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V024/2020Q2	Research to determine the role of the gut microbiota in infant temperament and future mental health using rats	Child temperament; faecal microbiota transplantation; depression; anxiety; social behaviour; gut microbiota; rat	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v024_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v024_2020q2.pdf?sfvrsn=2</a>
V025/2020Q2	Research into the development of hybrid artificial skin substitute for chronic diabetic wounds using mice	Wound healing; diabetes; diabetic foot ulcer; artificial extracellular matrix; scaffold; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v025_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v025_2020q2.pdf?sfvrsn=2</a>
V026/2020Q2	Research on the population dynamics of translocated and naturally colonised red squirrels	Conservation; wildlife; translocation; pit tagging; population density; <i>Sciurus vulgaris</i> ; red squirrel	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v026_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v026_2020q2.pdf?sfvrsn=2</a>
V027/2020Q2	Research to evaluate the use of a dietary additive to improve gut health and milk production in dairy cows fed a grass based diet	Bovine; dairy cow; gut health; dietary antacid; grass; milk production; milk fat percentage	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v027_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v027_2020q2.pdf?sfvrsn=2</a>
V028/2020Q2	Research investigating the therapeutic potential of parasite-derived immunomodulatory peptides in the treatment of sepsis and Acute Kidney Injury (AKI) using mice	Sepsis; acute kidney injury; helminth defence molecule; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v028_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v028_2020q2.pdf?sfvrsn=2</a>
V029/2020Q2	Research into the potential beneficial effects of probiotic bacteria feeding in mice following antibiotic treatment or infection with disease-causing bacteria	Probiotic; <i>Bifidobacterium</i> ; antibiotic; disease; gut health; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v029_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v029_2020q2.pdf?sfvrsn=2</a>

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V030/2020Q2	Research project into how gut microbes affect memory and other brain functions during ageing using rats	Ageing; gut microbes; memory; rat	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v030_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v030_2020q2.pdf?sfvrsn=2</a>
V031/2020Q2	Research project to determine the efficacy and safety of veterinary vaccines for cats and dogs	Cats; dogs; efficacy; safety; regulatory; licensing; veterinary vaccines	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v031_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v031_2020q2.pdf?sfvrsn=2</a>
V032/2020Q2	Investigating Natural Killer (NK) cell metabolism as a determinant of NK cell anti-tumour activity using mice	Natural Killer cells; metabolism; cancer immunotherapy; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v032_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v032_2020q2.pdf?sfvrsn=2</a>
V033/2020Q2	Research to evaluate of role of cell and tissue specific activity of the IL-36 receptor in autoimmune disease using mice	Inflammation; psoriasis; inflammatory bowel disease; Crohn's disease; ulcerative colitis; IL-36; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v033_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v033_2020q2.pdf?sfvrsn=2</a>
V034/2020Q2	Regulatory study to conduct the in vivo phase of vaccine immunogenicity/immunopotency studies using ferrets	Immunogenicity; immunopotency; vaccines; influenza; coronavirus; ferrets	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v034_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v034_2020q2.pdf?sfvrsn=2</a>
V035/2020Q2	Research project to assess the effects of Neurotoxin Type A on lower limb function using the Digit Abduction Score (DAS) Assay in mice	Neurotoxin; digit abduction score; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v035_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v035_2020q2.pdf?sfvrsn=2</a>
V036/2020Q2	Research of the hemodynamic effects of agonists and antagonists of receptors within the renin-angiotensin system in mice	Mouse; blood pressure; heart rate; hormone system; haemodynamic effects; renin-angiotensin	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v036_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v036_2020q2.pdf?sfvrsn=2</a>

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V037/2020Q2	Regulatory project: determination of the potency value associated with the manufacture of specific neurotoxin products as required by the regulatory authorities using mice	Neurotoxin; potency test; medicinal products; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v037_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v037_2020q2.pdf?sfvrsn=2</a>
V038/2020Q2	Investigating the role of food additives in the onset of diabetes using mice	Insulin; diabetes; food additives; inflammation; obesity; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v038_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v038_2020q2.pdf?sfvrsn=2</a>
V039/2020Q2	Research investigating Neuromedin (NMU) - a new biological-marker and diuretic for the treatment of heart failure using pigs	Pig; neuromedin; heart failure; diuresis; biomarker	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v039_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v039_2020q2.pdf?sfvrsn=2</a>
V040/2020Q2	Pilot study to establish a contusion model of spinal cord injury in rats, in order to investigate new therapies to improve recovery	Spinal cord injury; SCI; contusion; stem cells; immunomodulation; neuroinflammation; rat	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v040_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v040_2020q2.pdf?sfvrsn=2</a>
V041/2020Q2	Research project assessing the influence of a high fibre diet on the development of hypoxic pulmonary hypertension in mice	Mice; hypoxic pulmonary hypertension; dietary fibre	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v041_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v041_2020q2.pdf?sfvrsn=2</a>
V042/2020Q2	Research project on neuropathic pain alterations of the brain endogenous cannabinoid system of the rat: does the sex matter?	Neuropathic pain; central nervous system; endogenous cannabinoid system; sex differences; rat	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v042_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v042_2020q2.pdf?sfvrsn=2</a>
V043/2020Q2	Research assessment of the therapeutic efficacy of mesenchymal stromal/stem cells in ventilator induced lung injury and pneumonia induced lung injury, using rats	Cell therapy; pneumonia; ventilator induced lung injury; Acute Respiratory Distress Syndrome (ARDS); mesenchymal stem cells; rat	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v043_2020q2.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q2-2020-april-june/v043_2020q2.pdf?sfvrsn=2</a>