

## Non-Technical Project Summary

Period of approval: Q1 January–March 2019

| REFERENCE NUMBER | PROJECT TITLE  | KEYWORDS  | LINK TO NTPS  |
|------------------|--|---|---|
| V001/2019Q1      | Research project to determine the impact of a slow release trace element bolus on the performance and blood profiles of ewes and lambs | Trace minerals; supplementation; slow release bolus; blood mineral profile; growth rate; sheep          | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v001_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v001_2019q1.pdf?sfvrsn=2</a> |
| V002/2019Q1      | Research to identify immune measures to breed for disease resistance in cattle   | Bovine immunophenotyping; innate immunity; neonatal immunology; cattle                                  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v002_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v002_2019q1.pdf?sfvrsn=2</a> |
| V003/2019Q1      | Research study involving the collection of turkey/chicken/guinea pig blood for use in in vitro assays                                  | Blood sampling; turkeys; chickens; guinea pigs; in vitro assays; influenza; vaccines                    | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v003_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v003_2019q1.pdf?sfvrsn=2</a> |
| V004/2019Q1      | Research project investigating the identification of genes involved in gastrointestinal disease in mice                                | Inflammatory bowel disease; gastrointestinal infection; inflammation; mice                              | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v004_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v004_2019q1.pdf?sfvrsn=2</a> |
| V005/2019Q1      | Research into the role of the IL-1 family in retinal degeneration using mice   | Mice; age-related macular degeneration; blindness; retina; immune system; cytokines; neovascularisation | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v005_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v005_2019q1.pdf?sfvrsn=2</a> |

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| V006/2019Q1      | Coastal Ireland Salmonid Tracking Research Project  | Atlantic salmon (Salmo salar); sea trout (Salmo trutta); telemetry; predation; migration; behaviour; survival; environment; marine | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v006_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v006_2019q1.pdf?sfvrsn=2</a> |
| V007/2019Q1      | Research project investigating the impact of a range of teat disinfectant products in reducing bacterial numbers on teat skin in cattle       | Bos Taurus; dairy cow; teat disinfection; bacteria   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v007_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v007_2019q1.pdf?sfvrsn=2</a> |
| V008/2019Q1      | Research project investigating the interaction of pike with trout and salmon in a catchment in the west of Ireland                            | Brown trout; pike; salmon; predation; invasive; management   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v008_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v008_2019q1.pdf?sfvrsn=2</a> |
| V009/2019Q1      | Research project investigating microbes in cancer therapy in mice   | Infection; cancer; gene therapy; microbiome; microbiology; mice  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v009_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v009_2019q1.pdf?sfvrsn=2</a> |
| V010/2019Q1      | Research into the foraging ecology of higher predators in Ireland   | Seabirds; geese; ecology; biotelemetry; seals; habitat use; diet; foraging; fisheries  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v010_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v010_2019q1.pdf?sfvrsn=2</a> |
| V011/2019Q1      | Research project investigating neratinib plus dasatinib drug combination in breast cancer using a mouse model                                 | Breast cancer; anti-cancer drugs; neratinib; dasatinib; mouse  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v011_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v011_2019q1.pdf?sfvrsn=2</a> |
| V012/2019Q1      | Research to develop an animal model of brain tumour for future research on local treatments of glioblastoma multiforme post-resection in mice | Mouse; hydrogel; glioblastoma; tumour resection; anticancer; nanomedicine  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v012_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v012_2019q1.pdf?sfvrsn=2</a> |

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| V013/2019Q1      | Research project investigating nutritional strategies in early lactation to reduce the severity and duration of negative energy balance (NEB) and the associated negative metabolic status in high yielding dairy cows in a high input grass-based system | Dairy cow; fertility; nutrition; metabolic status; milk production; energy balance                       | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v013_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v013_2019q1.pdf?sfvrsn=2</a> |
| V014/2019Q1      | Pre-clinical research of nerve guidance conduits and decellularised nerve grafts for peripheral nerve repair, using a rat model of peripheral nerve injury  | Nerve regeneration; rat; nerve guidance conduit; decellularised nerve graft; biomaterials; sciatic nerve | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v014_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v014_2019q1.pdf?sfvrsn=2</a> |
| V015/2019Q1      | Research of microRNA diagnostics and therapeutics in mouse models of Alzheimer's disease and seizure activity   | Alzheimer's disease; microRNA; hyperexcitability; mouse; biomarkers                                      | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v015_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v015_2019q1.pdf?sfvrsn=2</a> |
| V016/2019Q1      | Research on the behaviour and efficacy of a once-monthly injection of an albumin-based delivery system in a mouse model of Type II diabetes   | Type II Diabetes Mellitus; GLP-1; albumin; drug delivery; subcutaneous injection                         | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v016_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v016_2019q1.pdf?sfvrsn=2</a> |
| V017/2019Q1      | Research project: Investigating the potential use of monoclonal IL-6R antibodies as a treatment for memory dysfunction in the mdx mouse model of Duchenne Muscular Dystrophy  | Interleukin-6; learning; memory; Duchenne muscular dystrophy; mdx mice                                   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v017_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v017_2019q1.pdf?sfvrsn=2</a> |
| V018/2019Q1      | Research project: determining the role of a reduced milking frequency in early lactation on dairy cow production and labour requirements  | Once-a-day milking; early lactation; milking frequency; lactating cows; bovine; animal welfare           | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v018_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v018_2019q1.pdf?sfvrsn=2</a> |

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| V019/2019Q1      | Research project to characterise the host response to Neoparamoeba perurans in Atlantic salmon fed dietary supplements              | Atlantic salmon; amoebic gill disease; Neoparamoeba perurans; immunology; dietary supplements                    | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v019_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v019_2019q1.pdf?sfvrsn=2</a> |
| V020/2019Q1      | Research project investigating cellular and molecular mechanisms of epilepsy using mice   | Epilepsy; epigenetic; microRNA; hippocampus; seizure; biomarkers; mouse; disease-modifying therapy               | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v020_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v020_2019q1.pdf?sfvrsn=2</a> |
| V021/2019Q1      | Research to identify the therapeutic doses of novel, retargeted, botulinum neurotoxins in rats                                      | Botulinum neurotoxin; retargeting; dose determination; pain; inflammation; rat                                   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v021_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v021_2019q1.pdf?sfvrsn=2</a> |
| V022/2019Q1      | Research project to develop laboratory standards for rodent clinical pathology  | Rat; mouse; haematology; clinical chemistry; clinical pathology; reference intervals                             | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v022_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v022_2019q1.pdf?sfvrsn=2</a> |
| V023/2019Q1      | Research project investigating the role of gut-microbiota in lifestyle-induced brain disorders using rats                           | Neurosciences; lifestyle factors; diet; exercise; neuroinflammation; cognition; gut-brain axis; microbiota; rats | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v023_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v023_2019q1.pdf?sfvrsn=2</a> |
| V024/2019Q1      | Research project evaluating the effects of candidate probiotic strains on the microbiota-gut-brain axis following C-section in mice | Antibiotics; behaviour; brain; caesarean section; microbiota; mouse; probiotics                                  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v024_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v024_2019q1.pdf?sfvrsn=2</a> |

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| V025/2019Q1      | Research into the gut microbiome-mediated effects of the antidepressant fluoxetine, and the subsequent relationship between fluoxetine, gut microbiota, and host genetics in mice  | Microbiome; antidepressant; depression; neurogenesis; brain; mouse  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v025_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v025_2019q1.pdf?sfvrsn=2</a> |
| V026/2019Q1      | Regulatory project to determine the potency value associated with the manufacture of a novel neurotoxin product using mice   | Neurotoxin; mouse; potency test; medicinal products   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v026_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v026_2019q1.pdf?sfvrsn=2</a> |
| V027/2019Q1      | Research project investigating the effect of floor type, space allowance and alternative floor options on performance and welfare of finishing beef cattle   | Bovine; beef cattle; animal welfare; rubber mats; concrete slats  | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v027_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v027_2019q1.pdf?sfvrsn=2</a> |
| V028/2019Q1      | Defining the role of novel signalling molecules in obesity using mice  | Innate signalling; insulin; inflammation; obesity; mice   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v028_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v028_2019q1.pdf?sfvrsn=2</a> |
| V029/2019Q1      | Research project investigating rumen fermentation and milk production in dairy cows  | Bovine; dairy; milk production; rumen fermentation; nutrition; feed additive; fresh grass; grass silage; rumen health | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v029_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v029_2019q1.pdf?sfvrsn=2</a> |
| V030/2019Q1      | Research investigation of the potential of a novel strain of genetically altered Toll-like receptor 3 L413F (TLR3 L413F) mice to aid in the diagnosis and treatment of idiopathic pulmonary fibrosis (IPF) in human patients | TLR3 L413F gene defect; mouse; idiopathic pulmonary fibrosis; human lung disease                                      | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v030_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v030_2019q1.pdf?sfvrsn=2</a> |

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|------------------|--|--|---|
| V031/2019Q1      | Research project to study the role of the tumour suppressor protein LATS1 in skin cancer, using zebrafish to find novel approaches to treat this common cancer | Cancer; melanoma; zebrafish; signalling; skin cancer                                       | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v031_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v031_2019q1.pdf?sfvrsn=2</a> |
| V032/2019Q1      | Research project investigating the impact of phage therapy for inflammatory bowel disease using a model of bacteria-induced intestinal inflammation in mice    | Microbiome; IL-10KO mice; inflammatory bowel disease; bacteriophage; AIEC; piroxicam       | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v032_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v032_2019q1.pdf?sfvrsn=2</a> |
| V033/2019Q1      | Research project to develop mouse models of pancreatic cancer for the evaluation of novel therapies  | Pancreatic ductal adenocarcinoma; PDAC; patient derived xenograft (PDX); cell-lines; mouse | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v033_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v033_2019q1.pdf?sfvrsn=2</a> |
| V034/2019Q1      | A research project to test potential dry eye disease-preventing drugs for adverse effects in mice  | Mouse; eye drop; dry eye disease; drug development; safety; side effects                   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v034_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v034_2019q1.pdf?sfvrsn=2</a> |
| V035/2019Q1      | Research project to discern anti-nociceptive and anti-inflammatory effects of retargeted Botulinum neurotoxins, using rats                                     | Rheumatoid arthritis; botulinum neurotoxin; pain; inflammation; rat                        | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v035_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v035_2019q1.pdf?sfvrsn=2</a> |
| V036/2019Q1      | Research investigating IRAK1 as a novel therapeutic target in a mouse model of ER+ breast cancer   | Breast cancer; oestrogen positive; drug resistance; mice                                   | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v036_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v036_2019q1.pdf?sfvrsn=2</a> |
| V037/2019Q1      | Research: Development of a novel cancer therapy using a mouse model  | Blood cancer; lymphoma; monoclonal antibody; biotherapeutic; mouse cancer model            | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v037_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january---march/v037_2019q1.pdf?sfvrsn=2</a> |

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| V038/2019Q1      | Research towards understanding the regulation of embryo development and improving embryo survival in cattle – interrogating the dynamics of uterine lumen fluid composition around maternal pregnancy recognition | Bovine; beef heifer; pregnancy establishment; uterine fluid; embryo                    | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v038_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v038_2019q1.pdf?sfvrsn=2</a> |
| V039/2019Q1      | Research project to optimise Multispectral Optoacoustic Imaging (MSOT) for monitoring stem cells/exosomes in the mouse knee as a prelude to use in a model of osteoarthritis                                      | Multispectral Optoacoustic Imaging (MSOT); stem cells; exosomes; mouse; osteoarthritis | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v039_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v039_2019q1.pdf?sfvrsn=2</a> |
| V040/2019Q1      | Regulatory project to determine the potency value associated with the manufacture of specific neurotoxin substances as required by the Regulatory Authorities   | Neurotoxin; mouse; potency test; medicinal products                                    | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v040_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v040_2019q1.pdf?sfvrsn=2</a> |
| V041/2019Q1      | Research project evaluating the effect of metabolic dysfunction on rapidly acting antidepressants in a rat model of depression  | Rat; depression; metabolic dysfunction; antidepressants; insulin resistance            | <a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v041_2019q1.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q1-2019-january--march/v041_2019q1.pdf?sfvrsn=2</a> |