

## Non-Technical Project Summary

REFERENCE NUMBER	PROJECT TITLE	MONTH OF APPROVAL	KEYWORDS	LINK TO NTPS
V001/2013Q4	Research study investigating immunomodulation by microorganisms using mice	October 2013	Bacteria; t-cells; immunity; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v001_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v001_2013q4.pdf?sfvrsn=2</a>
V002/2013Q4	Research study investigating the role of the body clock in modulating the inflammatory response in the macrophage in mice	October 2013	Circadian; inflammation; macrophages; mice; immune system	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v002_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v002_2013q4.pdf?sfvrsn=2</a>
V003/2013Q4	Research investigation into the effect of natural and induced calving on postpartum beef cow and calf health and welfare	October 2013	Calving; welfare; induction; beef cow; calf	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v003_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v003_2013q4.pdf?sfvrsn=2</a>
V004/2013Q4	Research study investigating susceptibility/resistance to <i>Ascaris suum</i> using a mouse model of early migration	October 2013	<i>Ascaris</i> ; helminth; mice; liver; sex effect	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v004_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v004_2013q4.pdf?sfvrsn=2</a>
V005/2013Q4	Research study investigating gut structure, function, microbiota and genomics in relation to feed conversion efficiency in pigs	October 2013	Pig; feed efficiency; microbiota; intestine	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v005_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v005_2013q4.pdf?sfvrsn=2</a>

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V006/2013Q4	Research investigation of nanosensitisers for multi-modality optical diagnostic imaging and therapy of cancers using rodents	October 2013	Gold; nanoparticles; cancer; photodynamic therapy; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v006_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v006_2013q4.pdf?sfvrsn=2</a>
V007/2013Q4	Research investigation into the development and evaluation of radiowaves in cancer therapy in rats	October 2013	Prostate cancer; radiowaves; radiotherapy; synergic; rats	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v007_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v007_2013q4.pdf?sfvrsn=2</a>
V008/2013Q4	Research study to determine the protective effects of bovine purified protein from intramammary infection caused by <i>Streptococcus uberis</i> in milking cows	November 2013	Mastitis; <i>Streptococcus uberis</i> ; cows; vaccine; efficacy; protection	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v008_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v008_2013q4.pdf?sfvrsn=2</a>
V009/2013Q4	Research investigation into the effects of multipotent adult progenitor cells on cytokine driven proliferation in mice	November 2013	Graft rejection; homeostatic proliferation; multipotent adult progenitor cells; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v009_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v009_2013q4.pdf?sfvrsn=2</a>
V010/2013Q4	Research investigation into the development of precision-farming IT tools for dairy-cow system	November 2013	Accelerometer; lameness; feed-intake; dairy cows	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v010_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v010_2013q4.pdf?sfvrsn=2</a>

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V011/2013Q4	Research study evaluating and comparing the ruminal degradability of protein sources in lactating dairy cows	November 2013	Ruminal by-pass protein; <i>in-sacco</i> method; rumen degradability; dairy cow; digestion	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v011_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v011_2013q4.pdf?sfvrsn=2</a>
V012/2013Q4	Research study investigating the effect of increasing dietary levels of feed industry by-products on milk production, milk composition and nutrient partitioning in early lactation dairy cows at grass	November 2013	Dairy cows; cereal by-products; milk composition; rumen function	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v012_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v012_2013q4.pdf?sfvrsn=2</a>
V013/2013Q4	Pilot research study investigating the distensibility of the gut luminal wall before and after stent placement in pigs	November 2013	Self expandable metal stent; distensibility; gut wall, EndoFlip; pig	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v013_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v013_2013q4.pdf?sfvrsn=2</a>
V014/2013Q4	Research investigation of the genetic control of equine skeletal muscle mitochondrial function and association with aerobic respiration	November 2013	Mitochondria; horse; skeletal muscle; aerobic respiration	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v014_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v014_2013q4.pdf?sfvrsn=2</a>
V015/2013Q4	Research study measuring Interleukin 8 expression in calves in response to bacterial lipopolysaccharide (LPS)	November 2013	LPS; interleukin 8; calves	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v015_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v015_2013q4.pdf?sfvrsn=2</a>

REFERENCE NUMBER	PROJECT TITLE	MONTH OF APPROVAL	KEYWORDS	LINK TO NTPS
V016/2013Q4	Research study investigating immunisation of sheep against liver fluke using two recombinant proteins; cathepsin L1 and peroxiredoxin	November 2013	<i>Fasciola hepatica</i> ; vaccine; sheep; cathepsin L1; peroxiredoxin	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v016_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v016_2013q4.pdf?sfvrsn=2</a>
V017/2013Q4	Research study evaluating the determination of Net energy and PDI (protein) values of feeds for sheep	November 2013	Sheep; digestibility; nutrition; rumen fermentation	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v017_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v017_2013q4.pdf?sfvrsn=2</a>
V018/2013Q4	Research study investigating cellular and molecular mechanisms of epilepsy in mice	November 2013	Epilepsy; hippocampus; seizure; biomarkers; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v018_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v018_2013q4.pdf?sfvrsn=2</a>
V019/2013Q4	Research study investigating novel therapies to alleviate the symptoms of rheumatoid arthritis using mice	November 2013	Rheumatoid arthritis; collagen antibody induced arthritis; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v019_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v019_2013q4.pdf?sfvrsn=2</a>
V020/2013Q4	A research study measuring uterine contractility in beef heifers using high resolution ultrasound scanning	November 2013	Cattle; uterine function; contractility; ultrasound imaging	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v020_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v020_2013q4.pdf?sfvrsn=2</a>

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V021/2013Q4	Research study evaluating the efficacy of miRNA-encapsulating GD2-conjugated FITC PLGA nanoparticles in retarding tumour growth, metastasis and drug resistance in an orthotopic human xenograft model of neuroblastoma using mice	December 2013	Mice; neuroblastoma; nanoparticle; microRNA; GD2	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v021_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v021_2013q4.pdf?sfvrsn=2</a>
V022/2013Q4	Research study investigating potential neuronal intracellular calcium dysregulation in a novel rat model (TgF344-AD) of Alzheimer's disease	December 2013	Hippocampus; Alzheimer's disease; TgF344-AD; rat; neuron	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v022_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v022_2013q4.pdf?sfvrsn=2</a>
V023/2013Q4	Research study investigating immunogenicity of allogeneic mesenchymal stem cells in health and disease in mice	December 2013	Mesenchymal stem cells; peripheral arterial disease; critical limb ischemia; immunosuppression; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v023_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v023_2013q4.pdf?sfvrsn=2</a>
V024/2013Q4	Research investigation into amiloride and amiloride derivatives targeting acid-sensing ion channels for the treatment of motoneuron disorders using mice	December 2013	Motoneuron disease; amyotrophic lateral sclerosis; therapeutic; acidotoxicity; amiloride	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v024_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v024_2013q4.pdf?sfvrsn=2</a>

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V025/2013Q4	Research study evaluating the effect of novel rumen by-pass protein supplementation on performance, energy balance and nitrogen excretion in early-lactation dairy cows	December 2013	Ruminal by-pass protein; dairy cow; lactation; milk production; nitrogen balance	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v025_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v025_2013q4.pdf?sfvrsn=2</a>
V026/2013Q4	Research project assessing the bioavailability of copper sources in beef cattle	December 2013	Nutrition; copper; ruminant; cattle	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v026_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v026_2013q4.pdf?sfvrsn=2</a>
V027/2013Q4	Research investigation into cell delivery using functionalised biomaterial for therapeutic angiogenesis in a hindlimb ischemia model using mice	December 2013	Hindlimb ischemia; biomaterials; mesenchymal stem cells; mice	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v027_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v027_2013q4.pdf?sfvrsn=2</a>
V028/2013Q4	Research study investigating inter-vertebral disc regeneration using therapeutic hydrogels in the rat tail	December 2013	Rat tail; disc degeneration; therapeutic hydrogels	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v028_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v028_2013q4.pdf?sfvrsn=2</a>
V029/2013Q4	Research study investigating the development of a new treatment for amyotrophic lateral sclerosis (ALS) using mice	December 2013	Amyotrophic lateral sclerosis; central nervous system; mouse models	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v029_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v029_2013q4.pdf?sfvrsn=2</a>

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V030/2013Q4	Research investigation into the mechanism mediating mesenchymal stem cells based cardiac repair in a rat model of myocardial infarction (MI) or injury	December 2013	Myocardial infarction; secreting factors; mesenchymal stem cells	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v030_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v030_2013q4.pdf?sfvrsn=2</a>
V031/2013Q4	Research study investigating the modulation of immune cells involved in the pathogenesis of psoriasis using mice	December 2013	Immune system; skin; inflammation; psoriasis; mouse	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v031_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v031_2013q4.pdf?sfvrsn=2</a>
V032/2013Q4	Research investigation into predisposing factors for disease and immunocompetence in artificially-reared dairy and suckled beef calves from birth to weaning	December 2013	Immunocompetence; animal health; colostrum; bovine; calf	<a href="http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v032_2013q4.pdf?sfvrsn=2">http://www.hpra.ie/docs/default-source/vet---non-technical-project-summaries-folder/q4-2013-october---december/v032_2013q4.pdf?sfvrsn=2</a>