Environmental Protection Agency
An Ghníomhaireacht um Chaomhnú Comhshaoil

Headquarters,
PO Box 3000,
Johnstown Castle Estate,
County Wexford,
Ireland

Consent for Notification No. B/IE/12/02

Consent to a deliberate release of GM vaccine Equilis RhodE (for the treatment of *Rhodococcus equi* in foals) into the environment for purposes other than for placing on the market (veterinary trial).

GMO Register Number:	G0493-01
Location of Deliberate Release:	Belmont Stud Belmont Co Offaly
Notifier:	Intervet International B.V. Wim de Körverstraat 35 NL – 5831 AN Boxmeer The Netherlands

DECISION

The Environmental Protection Agency, in exercise of the powers conferred on it by the Genetically Modified Organisms (Deliberate Release) Regulations [S.I. No. 500 of 2003 implementing Directive 2001/18/EC on the deliberate release into the environment of GMOs], for the reasons hereinafter set out, grants this consent to:

Intervet International B.V. Wim de Körverstraat 35, NL – 5831 AN Boxmeer, The Netherlands.

to carry out the deliberate release of *Rhodococcus equi* RG2837 (Four genes at two loci, *ipdAB1* and *ipdAB2*, were deleted from the chromosome of *R. equi* RE1 to yield *R. equi* RG2837 using recombinant DNA techniques. *R. equi* RG2837 is contained in the vaccine Equilis RhodE.) into the environment for purposes other than for placing on the market at one location:

Belmont Stud Farm, Belmont, Co Offaly

subject to nine (9) conditions as set out in the conditions attached hereto.

Sealed by the Seal of the Agency on this the 10th day of April, 2013

PRESENT when the seal of the Agency was affixed hereto

Dara Lynott
Director

REASONS FOR THE DECISION

The Environmental Protection Agency is satisfied, on the basis of the information provided, that subject to compliance with the conditions of this consent, the notifier will ensure that all appropriate measures are taken to avoid adverse effects on human health and the environment from the deliberate release of *Rhodococcus equi* RG2837. Furthermore, the Agency believes that the risk to human health and the environment from the deliberate release of *Rhodococcus equi* RG2837 is negligible.

Having regard to the location of the deliberate release veterinary trial at Belmont Stud Farm, Belmont, Co Offaly, and the proximity of the veterinary trial to nearby receptors, the nature of the veterinary trial as well as the processes to be undertaken in the operation and management of the veterinary trial as described in the Notification, it is considered that the veterinary trial, if managed, operated and controlled in accordance with the consent conditions will not result in the contravention of any relevant environmental quality standard or cause environmental pollution.

In reaching this decision, the Agency has considered all of the documentation submitted in relation to this notification from the applicant, including, all of the representations made by the public and having regard to the expert opinion that the Agency received on the notification, the report of its inspector and any other relevant material.

The consent is granted in accordance with Article 18(5)(a) of the Genetically Modified Organisms (Deliberate Release) Regulations [S.I. No. 500 of 2003] subject to the attached consent conditions.

INTERPRETATION

Agency	The Environmental Protection Agency (EPA).
Competent Authority	The EPA is the Competent Authority for the purposes of the Genetically Modified Organisms (Deliberate Release) Regulations 2003, S.I. No. 500 of 2003.
Consent	Consent issued in accordance with Article 18(5) of the Genetically Modified Organisms (Deliberate Release) Regulations 2003, S.I. No. 500 of 2003
Directive	Means Directive 2001/18/EC of the European Parliament and of the Council of 12 March 2001 on the deliberate release into the environment of genetically modified organisms and repealing Council Directive 90/220/EEC.
Deliberate Release	Means any intentional introduction into the environment of a genetically modified organism or a combination of genetically modified organisms for which no specific containment measures are used to limit their contact with, and to provide a high level of safety for the general population and the environment, and cognate words and expressions shall be construed accordingly.
Environmental Risk Assessment	Means the evaluation, carried out in accordance with the Second Schedule, of risks to human health or the environment, whether direct or indirect, immediate or delayed, which the deliberate release or the placing on the market of genetically modified organisms may pose.
EPA	Environmental Protection Agency
GMO	Genetically Modified Organism means an organism, (including a micro-organism) other than a human being, in which the genetic material has been altered in a way that does not occur naturally by mating or natural recombination, or by a combination of both.
GMO Register	A register of GMO users in Ireland, which is available for inspection at Agency Headquarters by

	any person during office hours. The register entry provides details of the deliberate release of GMOs.
GMO Regulations	Genetically Modified Organisms (Deliberate Release) Regulations 2003, S.I. No. 500 of 2003
GM vaccine	Equilis RhodE vaccine containing GM *R. equi* strain RG2837
Notification	Means the submission of required information to the Competent Authority.
Notifier	Means any legal or natural person submitting a notification or, where the context so requires, any legal or natural person responsible for a deliberate release, or for meeting any other requirement of these Regulations in relation to a deliberate release. The notifier in this instance is Intervet International B.V. Wim de Körverstraat 35, NL – 5831 AN Boxmeer.
Obligations	A person who carries out a deliberate release shall ensure that all appropriate measures are taken to avoid adverse effects on human health or the environment arising from the deliberate release. Without prejudice to any other provision of these Regulations, a person who proposes to submit a notification for consent in accordance with Part II to deliberately release a genetically modified organism shall, prior to submitting the said notification, carry out an environmental risk assessment in accordance with the Second Schedule. In making an assessment pursuant to the above paragraph, the person proposing to carry out the deliberate release shall give particular attention to the risks to human health or the environment posed by the deliberate release of a genetically modified organism which contains one or more genes expressing resistance to antibiotics used in human or veterinary medicine.
Organism	Has the meaning given to it in section 111 of the Environmental Protection Act 1992 and includes any biological entity capable of replication or of transferring genetic material.
Principal Investigator (PI)	The lead scientist or veterinary surgeon for the duration of this veterinary trial

Release Site	The release site corresponds to the area of Belmont Stud Farm where the vaccine will be administered to the foals and where the foals will remain until they have been shown not to excrete GM vaccine strain *R. equi* RG2837. The release site constitutes the foal shed, the stables, the yard, the Pony Garden, the Orchard and the Roadfield, an area of 1.11 Ha. (Townland Code: S14901; Townland Name Bellmount or Lisderg).

Conditions

Condition 1 Scope

1.1. This consent is for the purposes of compliance with the Genetically Modified Organisms (Deliberate Release) Regulations, S.I. No. 500 of 2003, only in relation to the performance of veterinary trials with a GM bacterial vaccine as specified in Condition 2.

1.2. Nothing in this consent shall be construed as negating the notifier's statutory obligations or requirements under any other enactments or regulations.

1.3. No modifications to the deliberate release, as described in the notification and supporting information submitted to the Agency, shall take place without the written approval of the Agency.

1.4. If the Agency becomes aware of new information that in its view could have significant consequences for the risks to human health or the environment, it may, following evaluation of the issues concerned:

1.4.1. terminate the deliberate release trial; or,

1.4.2. modify or suspend the conditions of this consent.

Reason:	**To clarify the scope of the consent**

Condition 2 Duration and location of the Veterinary Trial

2.1. This consent is for the performance of a veterinary trial with GM *Rhodococcus equi* RG2837 at the following location from the date of grant of these consent conditions to 30 September 2016:

Belmont Stud Farm, Belmont, Co Offaly.

Reason:	**To clarify the duration and location of the veterinary trials**

Condition 3 Management of the Veterinary Trial

3.1 Prior to the commencement of the veterinary trial the necessary facilities for the storage, transport and disposal of the GM vaccine material as well as for the disposal of contaminated waste material must be made available at the trial location as stipulated under Condition 2.1.

3.2 Prior to the commencement of the trial, the Agency shall be informed of the date of arrival of the GM vaccine in Ireland and its storage location up to and prior to administration to foals participating in the trial.

3.3 The notifier, subject to the agreement of the Agency, shall employ a suitably qualified and experienced person who shall be designated as the person in charge i.e. the Principal Investigator (PI). The Agency and the veterinary trial staff at Belmont Stud Farm shall be informed of the identity of the PI prior to the commencement of the veterinary trial. The Agency and the veterinary trial staff at Belmont Stud Farm shall be immediately informed of any change to this designation during the course of the trial.

3.4 The notifier through the PI shall ensure that veterinary trial staff involved in performing specifically assigned tasks shall be:

3.4.1 suitably qualified in terms of appropriate education, training and experience as required;

3.4.2 issued with a copy of the consent conditions; and,

3.4.3 made aware of the requirements of the consent conditions prior to the commencement of the veterinary trial;

3.4.4 informed of the Worker Protection measures in accordance with Condition 6.0.

3.5 Each foal taking part in the trial must be identified by a name or code. The notifier through the PI shall keep a list identifying each foal and whether the animal is a vaccinate or a control.

3.6 The Agency, or its appointed agent, may access Belmont Stud Farm at any time during the course of the veterinary trial.

Reason:	**To make provision for management of the trial on a planned basis, having regard to the desirability of ongoing assessment, recording or reporting of matters affecting the environment and human health**

Condition 4 Duty of the notifier to inform the Agency of new information

4.1. If, after the Agency has granted consent, new information relevant to the deliberate release becomes available, or there is an unintended change to the deliberate release which could have consequences for the risks to human health or the environment, the notifier shall:

4.1.1. immediately take the necessary measures to protect human health and the environment;

4.1.2. inform the Agency as soon as the new information becomes available or the unintended change is known; and,

4.1.3. inform the Agency as soon as possible of such further measures the notifier has taken or proposes to take in relation to the matters concerned.

4.1.4 In the event that the Agency suspends the deliberate release further to an evaluation of the new information / unintended change, the deliberate release shall not resume until such time as the notifier obtains written consent from the Agency permitting its recommencement.

Reason:	**To provide and update information on the trial**

Condition 5 Monitoring

5.1 All foals shall be held within the release site for at least two weeks after last vaccination.

5.2 All foals participating in the trial shall be tested for the faecal shedding of viable *R. equi* RG2837 prior to their release from the designated release site.

5.3 The foals shall not be moved from the release site until it is confirmed that the GM vaccine strain (*R. equi* RG2837) is not being shed in the faeces of any foal.

Reason:	**To make provision for the monitoring of matters affecting the environment and human health**

Condition 6 Worker Protection Measures to be taken during the veterinary trial

6.1. The notifier through the PI shall implement worker protection measures during the veterinary trial. These measures shall apply to all staff involved in the execution of the veterinary trial. An SOP setting out worker protection measures and how they will be implemented shall be made available to veterinary trial staff prior to trial commencement. This SOP shall be made available to the Agency or its agent upon request

6.2. Access to the release site shall be limited to veterinary trial staff authorised in accordance with condition 3.4.

6.3. Authorised veterinary trial staff shall be issued with a product brochure and shall be informed verbally and in writing about the possible health hazards caused by *R. equi* bacterium in general and in particular to immunocompromised persons.

6.4. Veterinary trial staff attending a General Practitioner (GP) during the course of the trial (and particularly those being treated for an infection) shall be advised to inform the GP of their proximity to the trial and the vaccine strain *Rhodococcus equi* RG2837 and the potential associated health hazards. Veterinary trial staff shall also be advised to make the product brochure available to the GP in such instances.

6.5. The notifier through the PI shall advise all staff that persons at increased risk of acquiring infection (any member of staff with known immunocomprised status and who is scheduled to receive or who has already received immune-suppressant therapy) or for whom infection may have serious consequences, should not enter the release site until such time as the trial foals have vacated the release site and the release site has been decontaminated as outlined under Condition 8.

6.6. Signs shall be erected forbidding unauthorised persons to enter the release site.

6.7. All persons, other than authorised staff (i.e., all staff employed by Belmont Stud Farm) visiting the stud farm, shall sign a visitor's log which shall be made available to the Agency or its agent upon request.

6.8. No horse (other than those in the ownership of Belmont Stud Farm) shall be allowed into the release site until such time as all trial foals have been moved from the release site.

Reason:	**To comply with the GMO (Deliberate Release) Regulations S.I. No 500 of 2003 and to avoid adverse effects on human health and the environment**

Condition 7 Record keeping and reporting to the Agency

7.1 Reporting to the Agency shall be in accordance with Annex 1.

7.2 The notifier through the PI shall inform the Agency of the date of trial commencement no later than 24 hours before trial commencement during the foaling season for each of 2013, 2014, 2015 and 2016.

7.3 The notifier through the PI shall inform the Agency of the number of foals (vaccinates and controls) taking part in the trial. The Agency must be informed of any alteration to these numbers along with the reasons therefore.

7.4 While recognising that this trial will be a blind study, the notifier through the PI shall keep a record of the dates of vaccine administration as well as identification of the corresponding foal to which the vaccine has been administered.

7.5 The notifier through the PI shall maintain the following information in respect of each foal for each vaccine administration:
- 7.5.1 the dates and times of vaccine administration;
- 7.5.2 the batch number of the vaccine;
- 7.5.3 the concentration of GMM dose administered to each foal.

7.6 The following data shall be maintained in respect of each foal monitored in accordance with condition 5:
- 7.6.1 the date(s) on which faeces is sampled for viable *R. equi* RG2837 and the result of the corresponding test for the presence of *R. equi* RG2837;
- 7.6.2 the date upon which each foal is moved from the release site.

7.7 In addition to the records retained under conditions 7.4, 7.5 and 7.6, the notifier through the PI shall maintain accurate detailed records in respect of the following:
- 7.7.1 Quantities of GM vaccine material imported, stored and used during the course of the trial;
- 7.7.2 The movement of GM waste by SRCL Ltd. (GMO Register No. G0163-01), or other registered contractor, for inactivation by validated means as outlined under conditions 8.1 to 8.5 inclusive;
- 7.7.3 Dates upon which information outlined under conditions 6.3 and 6.4 was disseminated to veterinary trial staff. These entries shall be co-signed by the notifier through the PI and the veterinary trial staff member;
- 7.7.4 All accidents / incidents relating to the use of the GM vaccine incurred by staff members and / or trial animals.

7.8 All data gathered under conditions 7.4, 7.5, 7.6 and 7.7 inclusive shall be made available to the Agency, or its appointed agent on request.

7.9 The notifier shall submit a report to the Agency on or before the 23rd December each year, up to and including 23rd December 2016. This report shall provide the data gathered under conditions 7.4, 7.5, 7.6, 7.11 inclusive as well as the results of any monitoring activities carried out in accordance with Condition 5.

7.10 the notifier shall submit a report to the Agency, in the format set out under Commission Decision 2003/701/EC[1], (adapted for the release of a

[1] Commission Decision of 29 September 2003 establishing pursuant to Directive 2001/18/EC of the European Parliament and of the Council a format for presenting the results of the deliberate release into the environment of genetically modified higher plants for purposes other than placing on the market *(notified under document number C(2003) 3405)* (2003/701/EC)

GM vaccine) on or before the 23rd December 2016. This report shall include the following information:

7.10.1 the results of the deliberate release; and,

7.10.2 a post-release evaluation of the risks to human health and the environment.

7.11 Each year, the notifier shall notify the Agency of the completion of the experimental trials as established under Condition 2, as soon as is practicable.

7.12 The Agency shall be notified of the death of any trial animal and the relevant measures taken by the notifier through the PI further to the animal's death.

Reason:	**To provide for the keeping of records and the reporting of information on the trial and to make provision for the reporting to the Agency of any impacts of the completed trials and associated risks**

Condition 8 Waste Management

8.1 Contaminated disposables, such as disposable coats, gloves, tissues, plastic pipettes, etc, containing viable *R. equi* RG2837, shall be collected in double autoclave bags and stored in closed containers until such time as they are removed from Belmont Stud Farm by SRCL Ltd. (GMO Register No. G0163-01), or other registered contractor for inactivation by validated means prior to disposal.

8.2 Vaccine vials, used syringes, unused GM vaccine contaminated with viable *R. equi* RG2837 shall be:

8.2.1 collected in double autoclave bags and stored in closed containers until such time as they are removed from Belmont Stud Farm by SRCL Ltd., (GMO Register No. G0163-01), or other registered contractor for inactivation by validated means prior to disposal, or

8.2.2 immersed in a suitable disinfectant in accordance with the manufacturer's instructions.

8.3 Straw, litter, bedding and faeces produced while the vaccinated foals are held within the release site shall be collected, stored in bins, removed by SRCL Ltd., (GMO Register No. G0163-01), or another registered contractor for inactivation by validated means. The bins shall be disinfected before their return to Belmont Stud Farm.

8.4. The stable floors within the release site shall be cleaned and treated with disinfectant each time bedding is removed and / or changed.

8.5 Each year, following completion of the trial, any residual GM vaccine material shall be removed from Belmont Stud Farm by SRCL Ltd.

(GMO Register No G0163-01), or another registered contractor for inactivation by validated means prior to disposal.

Reason:	**To ensure inactivation of all waste material containing viable GMMs such that risks to human health and the environment are minimised**

Condition 9 Charges for site inspections and auditing

9.1 The notifier shall pay the EPA €2,730 in total over a period of 4 years (2013 – 2016). €1,365 shall be paid to the Agency in 2013 and €455 shall be paid in 2014 and again in 2015 and in 2016. The amount for 2013 shall be paid within one month of the issue of this consent and by February 28th in subsequent years.

Reason:	**To provide for adequate financing for the performance of site inspections**

Sealed by the Seal of the Agency on this the 10th day of April, 2013

PRESENT when the seal of the Agency was affixed hereto

Dara Lynott
Director

Annex 1

SCHEDULE OF REPORTING

YEAR	DEADLINE	To be submitted to the EPA
2013 – 2016 inclusive	Twenty-four (24) hours prior to trial commencement	• The date of trial commencement for respective year
2013 – 2016 inclusive	Prior to trial commencement	• The identity of the Principal Investigator (condition 3.3) • The date of arrival of the GM vaccine in Ireland and its storage location prior to use (condition 3.2) • The number of foals (vaccinates and controls) participating in the trial and any ensuing alteration to these numbers as it emerges (condition 7.3)
2012 – 2016 inclusive	On or before 23rd December (each year)	Results of any monitoring activities (condition 5.0). In order to fully address this, information gathered under condition 7.6 should also be provided: Information stipulated under the following conditions: 7.4, 7.5 and 7.11.
2016	On or before 23rd December	Final report in the format set out under Commission Decision 2003/701/EC and Condition 7.10