



Licensing Opportunity  
AgResearch Ltd

**Patent Title:**           **Controlled Release Vitamin B<sub>12</sub> Compositions and Methods of Using Them**

**AgResearch Ref:**   **SmartShot**

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*Inventors: D Lewis, K Burke, N Grace*

- ✚ A controlled release composition comprising vitamin B<sub>12</sub> where the amount and release rate of the B<sub>12</sub> are sufficient to provide the animal with its daily vitamin B<sub>12</sub> requirements.

### **Background**

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Cobalt supplementation is required by livestock as it is needed for the synthesis of vitamin B<sub>12</sub>. Cobalt deficiency is a major problem in livestock worldwide. Increasing cobalt intake can be achieved by an annual application of CoSO<sub>4</sub> in grazing animals where fertilisers are applied regularly. Direct treatment is more difficult and labour intensive as weekly and fortnightly doses are required. Subcutaneous injections of soluble vitamin B<sub>12</sub> preparations are only effective for up to 4 to 6 weeks.

### **Invention**

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A controlled release composition for the manufacture of a medicament for increasing vitamin B<sub>12</sub> blood serum levels and liver vitamin B<sub>12</sub> concentrations in an animal or human for the prevention or treatment of cobalt deficiency.

### **Uses of the Invention**

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“SMARTShot® B<sub>12</sub>” is registered and successfully marketed as a livestock animal health treatment in New Zealand and Australia and, as a result, AgResearch has extensive animal data documenting safety and efficacy.

AgResearch and a pharma partner could take the next step and progress this innovation to human applications in the medical and nutritional markets.

### **AgResearch Contact**

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Dr Ian Boddy  
General Manager – Business Group  
AgResearch Limited  
Private Bag 3115  
Hamilton  
New Zealand  
Email: [ian.boddy@agresearch.co.nz](mailto:ian.boddy@agresearch.co.nz)