

Irish Partnered Research Stimulus Fund Projects Supported under the US-Ireland R&D Partnership Call 2016

Lead Irish Partner, Lead Institute + Other Collaborating Institutions	Project Title and Summary	DAFM Grant Award to ROI Partners
<p>Sinead Waters, Teagasc sinead.waters@teagasc.ie</p> <p>Other Collaborating Institutions: Irish Cattle Breeding Federation Agri-Food and Biosciences Institute University of Missouri</p>	<p>Application of next generation sequencing for the identification of DNA based biomarkers in regulatory regions of the genome for susceptibility to bovine respiratory disease complex (BRDC-Seq)</p> <p>Endemic disease is one of the most serious threats to the ambition of the agriculture and food industry in Ireland and increasing intensification of production systems has the potential to exacerbate this. Bovine respiratory disease complex (BRDC) is the most common economically important disease affecting cattle worldwide. BRDC, also known as pneumonia, is the largest cause of mortality in calves aged one to five months old in Ireland. To develop accurate diagnostics that can predict disease susceptibility/resistance, it is essential to clarify the molecular mechanisms that underlie BRDC in the host animal. This project aims to gain a greater understanding of the complex interactions between the bovine host and the multitude of viral and bacterial pathogens, as well as the environmental factors associated with BRDC infection in dairy calves. BRDC-Seq will utilise this key information for the identification of robust DNA based biomarkers to be employed via the genomic selection breeding programme.</p>	<p>€345,591</p>

