

The Roslin Institute
Public Engagement with Research Implementation Plan
Timeframe: 1 April 2017- 31 March 2022

Introduction Statement

Public Engagement with Research (PER) at The Roslin Institute is fundamental to our remit of enhancing the lives of animals and humans through world class research in animal biology. Through an embedded and strategic PER Programme, we aim to make the research and innovation of The Roslin Institute relevant to the lives of human and animals, promoting collaboration with the Public in a responsive and open manner, to inspire trust in scientific research and to ultimately build towards improved innovation in the future.

The Roslin Institute has a mature PER Programme developed by Nicola Stock (The Roslin Institute Public Engagement Officer) and supported by Megan Davey (The Roslin Institute Academic Lead for PER) which is strategically linked to scientific research within The Roslin Institute. The PER Programme comprises an on-Campus Programme primarily run through the Easter Bush Science Outreach Centre (EBSOC www.ebsoc.ed.ac.uk) within a wider program of Engagement and Outreach Events.

The EBSOC Schools Learning Programme, supported by Jayne Quoiani (EBSOC Education Officer) offers a unique research and curriculum-linked programme of workshops to primary and secondary pupils, and is complemented by a Family and Adult Learning programme, Teacher Experience Days and downloadable classroom resources, all supported by RI scientists. Off-campus PER activities include participation in local, regional and national events, with priority given to activities that will reach our target audiences and provide opportunities for two-way dialogue with the public.

Central to our PER Programme are the research staff, clinicians and students of The Roslin Institute, who are provided with support and training from the PER team in order to deliver high quality PER activities, thus developing and embedding a culture of PER in our future leaders and scientists. Additionally our PER team and researchers also contribute to wider Public and Community Engagement activity in line with University of Edinburgh strategy.

Strategic objectives-The Roslin Institute Public Engagement with Research

Objectives

1. Openness - to maintain and grow public trust, support and confidence in the research and innovation undertaken at The Roslin Institute

2. Development - to support Roslin Institute researchers to develop new skills and perspectives so as to improve their research
3. Inspiration and aspiration - to encourage young people to study STEM subjects at school and beyond
4. Collaboration - to shape our research through informed public dialogue
5. Assessment - to evaluate our PER Programme and training provision, with the aim of maintaining quality and delivering impact

Target Audiences

1. Underserved stakeholders and those with low science capital:
 - a. Rural communities with limited access to PER Events
 - b. Influential communities who don't attend targeted PER events to encourage Public Dialogue and Public Accountability with new audiences
2. Educators enriching the science curriculum at a regional, national and international level
3. Local Learners, with priority given to:
 - a. Learners from areas in the most deprived 20% of Scotland (SIMD20)
 - b. Learners from rural communities with low science capital

Roslin Institute Target Topics

1. Critical and emerging topics in human and animal health and food production
2. The Roslin Institute's position and approaches in resolving these challenges
3. Scientific method and accountability

Specific Public Engagement Priorities for ISP1 Blueprints for Healthy Animals

1. *Critical and emerging topics in human and animal health and food production:* ISP1 will focus engagement on promoting understanding and dialogue around what a genome is; the role of the genome in embryonic and organ development and maintenance of animal body systems.
2. *The Roslin Institute's position and approaches in resolving these challenges:* ISP1 will focus engagement on methods we use to study the genome and reasons for this research, including how the information gained can be used to enhance the health and welfare of farmed animals.
3. *Scientific method and accountability:* ISP engagement will include the nature, benefits and risks of genome editing and transgenesis, the use of animals in research, using specific ISP1 examples of research into development and function of body systems.

Specific Public Engagement Priorities for ISP2 Control of Infectious Diseases

1. *Critical and emerging topics in human and animal health and food production:* ISP2 engagement will include promoting understanding and dialogue on the role of farmed terrestrial and aquatic animals in global food security, including for rural farmers in LMICs as a route from poverty and hunger. We will specifically focus on the impact of infectious diseases on animal production and welfare; the role of animals in transmission of diseases to humans; the antimicrobial resistance crisis.
2. *The Roslin Institute's position and approaches in resolving these challenges:* ISP2 engagement will focus on the research The Roslin Institute undertakes to find alternatives to antibiotics, our research to combat infectious diseases in livestock by selecting for heritable resistance, genome editing, vaccine development and the design of tools for early diagnosis.
3. *Scientific method and accountability:* ISP2 engagement will focus on the use of animals in research and attitudes to genome-edited animals in the food chain.

Specific Public Engagement Priorities for ISP3 Improving Animal Production and Welfare

1. *Critical and emerging topics in human and animal health and food production:* ISP3 engagement will include promoting understanding and dialogue on the role of farmed animals in global food security, including for rural farmers in LMICs as a route from poverty and hunger. We will specifically focus on how genetic and environmental factors interact to affect the development, lifelong-health and welfare of farmed animals.
2. *The Roslin Institute's position and approaches in resolving these challenges:* ISP3 engagement will focus on our research which aims to achieve sustainable genetic gains in production-relevant traits while improving welfare including how studying the sequence and expression of DNA can explain variation in heritable traits to inform selective breeding.
3. *Scientific method and accountability* ISP3 engagement will focus on the use of animals in research, specifically on the topic of 3R and the role of genome-editing in the future of farming.

Strategic Implementation Objectives (Academic Year)

Strategic Implementation Objectives 2016/2017

- Development of PER Strategy for Roslin Institute
- Completion of EBSOC- building and equipment
- Staff recruitment for EBSOC Schools Learning Programme
- Development of EBSOC Schools Learning Programme

Strategic Implementation Objectives 2017/2018

- Opening of EBSOC
- Delivery of EBSOC Schools Learning Programme
- Development of Researcher Training Programme
- Development of Researcher Award and Recognition Programme
- Development of reporting routes for PER activities

Strategic Implementation Objectives 2018/2019

- Delivery of EBSOC Schools Learning Programme
- Development and Delivery of Rural Outreach Programme- Year 1
- Development and Delivery of EBSOC Lending Library
- Development and Delivery of EBSOC Teacher Toolkit
- Instigation of Public Dialogue re: Genome Engineering

Strategic Implementation Objectives 2019/2020

- Delivery of EBSOC Schools Learning Programme
- On-going development and Delivery of EBSOC Teacher Toolkit and Workshops re: ISP themes
- Completion of Rural Outreach Programme- Year1
- Assessment of Rural Outreach Impact and Dialogue Programme Year 1
- Development and Delivery of Rural Outreach Programme- Year2 (Influential Rural Communities specifically Young Farmers)
- Development of Rural Outreach Programme-International
- Development and Delivery of EBSOC Family Toolkit

Development of Assessment of EBSOC Schools Learning Programme
Development of Assessment of EBSOC Researcher Training Programme

Strategic Implementation Goals 2020/2021

Delivery of EBSOC Schools Learning Programme
On-going development and Delivery of EBSOC Teacher Toolkit and Workshops re: ISP themes
Completion of Rural Outreach Programme- Year2
Assessment of Rural Outreach Impact and Dialogue Programme Year 2
Development and Delivery of Rural Outreach Programme- Year3 (Isolated Rural Communities-UK)
Delivery of Rural Outreach Programme-International
Assessment of Public Dialogue re: Genome Engineering
Reporting to RI scientists via ISP on Public Dialogue re: Genome Engineering
Assessment of EBSOC Schools Learning Programme
Assessment and Evaluation of EBSOC Researcher Training Programme

Strategic Implementation Goals 2021/2022

Delivery of EBSOC Schools Learning Programme
On-going development and Delivery of EBSOC Teacher Toolkit and Workshops re: ISP themes
Delivery of Rural Outreach Programme-International
Evaluation of Rural Outreach Programmes

Strategic Implementation Goals 2022/2023

Delivery of EBSOC Schools Learning Programme
On-going development and Delivery of EBSOC Teacher Toolkit and Workshops re: ISP themes
Evaluation of EBSOC Schools Learning Programme