

# PROJECT SNAPSHOT

## 10B: Economics of Reduced AMU in Swine and Beef Cattle

Pillar: Prevention of Transmission

Theme: Policy, Economics and Sustainability

Keywords: Antimicrobials; Livestock; Antibiotic Use



**PRINCIPAL INVESTIGATOR:** Ellen Goddard, PhD, MSc, BSc

**CO-INVESTIGATOR(S):** Xiaoli Fan, PhD, MSc, BA

### AIM

The focus of this project is studying the economic implications of optimal use of antimicrobials in swine and beef production in Alberta.

### WHY IS THIS IMPORTANT?

In Canada currently, 80% of antibiotic use is in livestock. We need to understand what the implications of current and potential future responses to regulations on livestock antibiotic use are likely to be in order to reduce the barrier to the adoption of these new restrictions.

### OUTCOME

Livestock producers will actively participate in reducing their antimicrobial use, potentially reducing AMR in Alberta.

### RESEARCH QUESTIONS

- 1 What are the behavioural responses to current and future restrictions on AMU in swine and beef supply chains?
- 2 How do the behavioural changes affect markets? (effects on productivity, consumption, trade, animal welfare, and AMR)

### OUR APPROACH

We will use surveys and interviews to collect data from decision makers in the swine and beef supply chains (farmers, processors, and consumers) about their response to new and potential future AMU restrictions. We will then use models to understand how the regulations and behavioural responses impact farm level outcomes as well as to understand the effects of farm level AMU decisions on domestic and international market outcomes.

### ALIGNMENT WITH THE AMR - ONE HEALTH CONSORTIUM

### LEVERAGED SOURCES OF SUPPORT

Related projects that share common elements, such as breeding for disease resilience in pigs, will be used to support the research • Genome Canada

### KNOWLEDGE & TECHNOLOGY EXCHANGE AND EXPLOITATION

- The research outcomes will be used to identify policies that could be used to encourage AMU reductions and support farmers/industries in the production transitions.

### TRAINING OF HIGHLY QUALIFIED PERSONNEL

- 1 Postdoctoral Fellow
- 1 MSc

### AFFILIATIONS:

