Alternatives to Antibiotics Symposium
Conclusion and Next Steps

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Objectives

The objectives of this symposium is to highlight promising research results and novel technologies that provide alternatives to antibiotics, assess challenges associated with their commercialization and use, and provide actionable strategies to support their development.
Questions

- Mechanisms of action?
- Research leading to paradigm shifts?
- Translational research?
- Inadequate funding to enable the transfer of technologies from research to development?
- Feed additives or pharmaceuticals?
- Regulatory pathways?
- Producer and consumer needs?
Priorities

Research

• Discovery of antibiotic alternatives with defined mechanisms of action
• Discovery of antibiotic alternatives that are safe and effective
• Discovery of antibiotic alternatives for the prevention or treatment of infectious diseases
• Discover antibiotic alternatives that are less susceptible to antimicrobial resistance
• Antibiotic alternatives to administer holistic integrated programs and maintain the health of animals throughout their production cycle
Priorities
Development

• Regulatory support and new approaches to meet safety and regulatory requirements

• Business incentives to invest in the development of new and innovative products: feed additives, drugs and biologics

• Antibiotic alternatives are very distinct molecules, with different effects, doses and mechanisms of action, and need to be developed accordingly

• Conducting a “general” evaluation of the effect of antibiotic alternatives on production performance is paramount in achieving commercial success
CONCLUSIONS

- Defining the mechanisms of action of alternatives to antibiotics is paramount to enable their effective use, whether they are used for prevention, treatment, or to enhance health and production.
- There is a need to integrate nutrition, health, and disease research.
- A portfolio of alternatives to antibiotics may need to be considered to achieve optimum health and disease management for different animal production systems.

www.ars.usda.gov/alternativestoantibiotics
NEXT STEPS

- Publication of review articles from symposium
- Posting of oral and poster presentations on the ATA website
- ATA Website Resource Center
- Funding of ATA-targeted research
- Public-private partnerships to advance the research, development, and commercialization antibiotic alternatives
- 2nd OIE World Conference on the Prudent Use of Antibiotics, 2017
- 3rd ATA Symposium, Chinese Agricultural University, Beijing, China, June 2018.

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Thank you!

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