

The Current State of AMR Research Activities Including Alternative to Antimicrobials (ATA) and Collaboration Opportunities in Indonesia

Liys Desmayanti, DVM, MS.i/Senior Veterinarian- AMR/AMU Animal Health Surveillance-NAP Team

Background on AMR research in the [Indonesia]

The current status of AMR research in INDONESIA

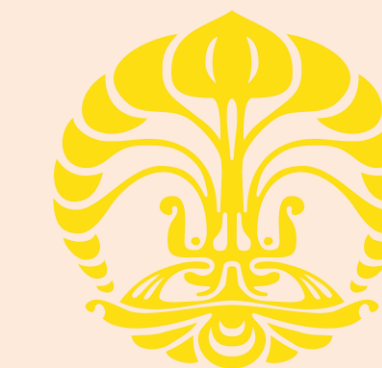


- New NAP Development (2025-2029)
- AMR tricycle project in ESBL research project (2018-2019)
- AMU surveillance study in 12 provinces (2017-2023)
- The impact of reducing colistin use on colistin resistance in humans and poultry in Indonesia (2022-2025)
- Survey knowledge, attitude, and practice (KAP) in layer farm (2022)
- Collaborative Projects on Association of Quinolones Resistance Pattern within Farmers, Dairy Farms and Catfish Farm (2022)

The key stakeholders on the AMR research



Ministry of Health,
Ministry of Agriculture,
Ministry of Marine & Fisheries
Government



University of Indonesia

Academic



Research Center



Private Sector

ATA Research Focus

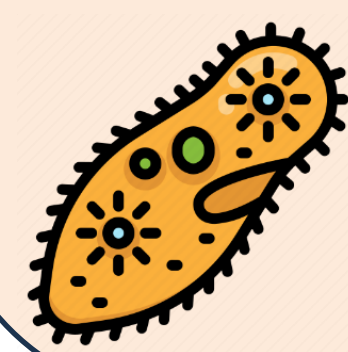
The state of research on ATA in Indonesia

Vaccines



Bacterial

C. perfringens (NE), *mycoplasma* (MG), *H. paragallinarum* (coryza), *P. multocida* (cholera)



Protozoa

Eimeria (Coccidiosis)

Probiotics

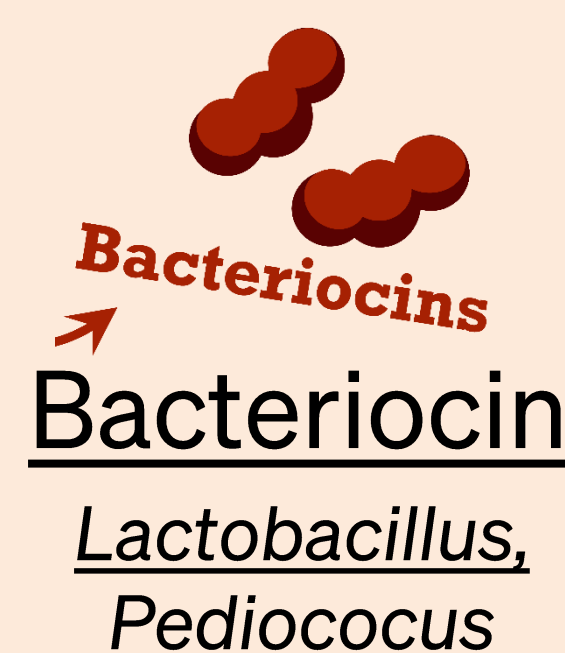


Lactobacillus, *Bacillus*,
Enterococcus, *S. cerevisiae*,
Bifidobacterium

Phytonutrients



Quillaja Saponaria, *Yucca schidigera*,
Curcuma, *Oregano*, *Jathropa M*,
Muntingia calabura,

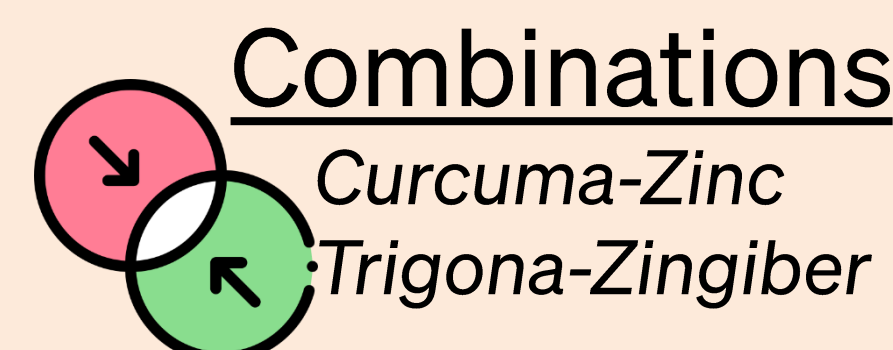


Lactobacillus,
Pediococcus



Antimicrobial Peptides

AMP *Clarias* sp



Combinations

Curcuma-Zinc
Trigona-Zingiber

The regulatory or practical barriers to
developing ATA-based treatments in Indonesia



Best Practice



Biosecurity



Investment

Challenges related to AMR/ATA research

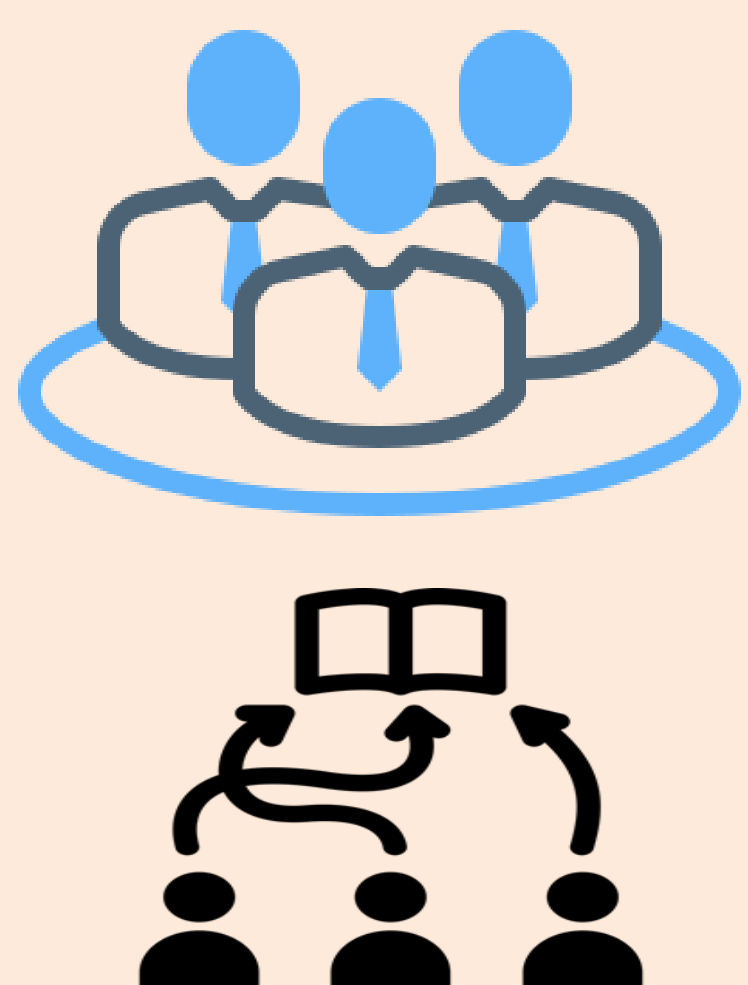
- Lack of priority on innovations and products development
- Lack of natural materials exploration
- Benefit ratio for the end-user
- ATA paradigm less effective
- R&D investment and funding priority
- Length of research process
- Market value

Solutions



- Strengthening upstream and downstream products research and development
- Long-term collaboration among government, academic, and private sector
- Research output to be products commercialization
- Involves main actor user (farmer)

Collaboration opportunities



- Collaboration among regional countries with academic collaboration or national research organization
- Support on investment to potential ATA sources with consortium platform collaboration
- Sharing experiences and lesson learned to develop ATA

