THE NEED FOR RESEARCH AND DEVELOPMENT

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Introduction and widespread use of antibiotics has led people to believe that we could successfully treat all infections. A hallmark of bacteria is that they naturally evolve and mutate, and so can become resistant to antibacterial agents. Over the past twenty years few new antibacterial agents, for veterinary use, have reached the market and we will look into causative factors.

The animal health industry researches, develops and markets medicines and vaccines for companion and food-producing animals. It is a dynamic, innovative sector delivering quality, safe and effective products for prevention, control and treatment of animal diseases. Its success depends on in-depth knowledge of cutting-edge technologies and veterinary science to innovate, on keeping up with animal and human health challenges through new and emerging diseases, as well as on providing new or improved technologies for food animals and food safety interventions. To ensure a continued stream of innovative products, not only do companies need to be aware of advancements in technology but the regulatory agencies also need to keep pace, since existing guidelines may need to adapted or new ones be created.

The need for research and development of veterinary antibacterial agents will be explained, highlighting currently unmet needs, areas where existing therapy could be improved or where only few alternatives exist. Animal Health Companies worldwide invest into research and innovation, about $1.6 billion every year by the companies recently surveyed in the IFAH Benchmarking survey. The development of a new antibacterial is estimated to cost $100 million. Organisation of discovery, research and development in industry is outlined. An overview of different research approaches for antibacterials will be given, and traditional anti-bacterial research, and novel approaches be illustrated. The most important factors from science, regulatory, politics influencing the final outcome of those long-term approaches will be set in a perspective.