

Session 3:

Veterinary public health and 'Veterinary Services' concept

Enhancing the role and participation of veterinarians in biomedical research

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The success of biomedical research is ever more critical to the needs of a growing world population and changes in our environment. Veterinarians with appropriate advanced training are uniquely suited to conduct biomedical research because of their in depth knowledge of a large number of medical specialties ranging from molecular biology to the clinical aspects of diseases in animal models and populations combined with their broad understanding of comparative medicine. However, one of the most critical challenges is the shortage of veterinarians with advanced biomedical research training. Evidence indicates that veterinarians as principal investigators continue to comprise an inadequately small percentage of all funded scientists. A concerted effort to increase the number of veterinarians trained in biomedical research is needed to fully realise the potential of newer scientific disciplines such as genomics and bioinformatics. Veterinarians need to serve key roles in the research of emerging and zoonotic diseases to safeguard global food supplies and public health. More veterinarians need to be engaged in leading research programmes involving integrative approaches that cross-cut scientific disciplines and translational research. Creating opportunities for veterinarians in biomedical research in academia, the private sector, and government will be paramount to fully support the public health needs of industrial and developing countries worldwide. To meet the growing need for research veterinarians, a critical requirement is assuring appropriate training programmes. We suggest that such programmes require multiple components that include early communication with veterinary students to enunciate the importance of hypothesis based research training and outline career opportunities. Veterinarians trained in biomedical research will be well suited to take on more significant, more influential positions, both in the public and private sectors, and partner with the biomedical research community in providing solutions to the public health challenges of the 21st century.

Keywords

Animal health – Biomedical research – Genomics – One health – Veterinarians – Zoonotic diseases.

