

How Veterinary Specialists Support Translational Medicine and Pharmaceutical Innovation



[Translational medicine](#) bridges the gap between laboratory research and real-world treatments, moving discoveries from the bench to the bedside, or in this case, from the lab to both the clinic and the farm. And, translational medicine isn't just bench-to-bedside; sometimes the [most promising treatments come from the veterinary clinic to the hospital](#), for example in oncology innovations.

Veterinary specialists are uniquely positioned in this space. Their dual perspective on animal and human health enables them to recognise shared disease mechanisms and contribute meaningfully to laboratory and medical research that benefits all species.

Across Europe, the [European Board of Veterinary Specialisation \(EBVS\)](#) certifies and supports more than 5,000 veterinary specialists in 39 distinct fields. These experts bring deep knowledge to clinical care, research, and education, ensuring that veterinary science continues to support innovation in medicine, pharmaceuticals, and public health.

The Link Between Animal Health and Human Health

The concept of [One Health](#) recognises that human, animal, and environmental health are deeply interconnected. Many of the world's emerging infectious diseases, such as avian influenza or SARS-CoV-2, originate in animals before crossing over to humans. Veterinary specialists play a crucial role in early detection, disease surveillance, and prevention, working alongside physicians, epidemiologists, and public health authorities.

A 2023 report by the [World Health Organization \(WHO\)](#) and the [Food and Agriculture Organization \(FAO\)](#) reaffirmed that strengthening veterinary capacity reduces zoonotic risks and improves public health resilience. By maintaining healthy animal populations, veterinarians indirectly contribute to safeguarding human health and supporting global food security.

Veterinary Specialists in Pharmaceutical Innovation

Veterinary specialists play a crucial role in pharmaceutical innovation, particularly in the development of new therapies for both animals and humans. Their input spans:

Preclinical Research

[Veterinary pathologists](#), lab animal specialists and pharmacologists play a crucial role in ensuring that new compounds are tested ethically and safely, providing valuable insights into their toxicity and efficacy.

Comparative Medicine

Studying naturally occurring diseases in animals, such as [cancers in dogs](#), arthritis in horses or diabetes in cats, helps researchers model human diseases more accurately than many artificial lab systems.

Regulatory Collaboration

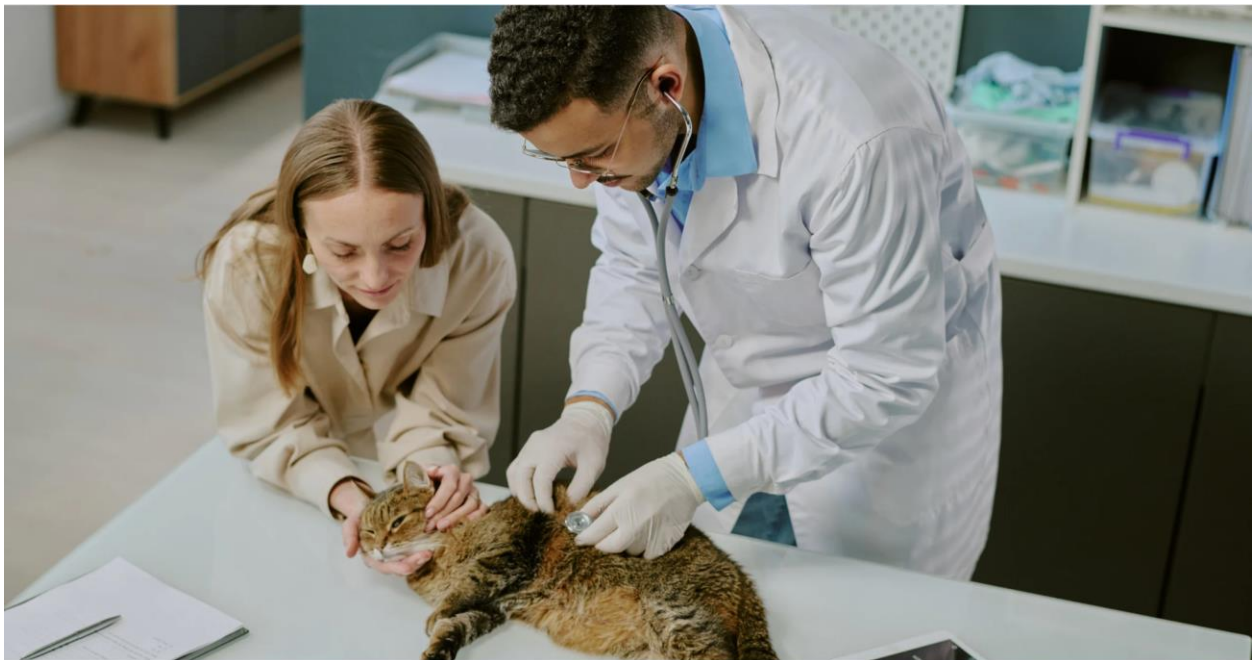
Specialists guide compliance with [European Medicines Agency \(EMA\)](#) standards, ensuring [veterinary and human pharmaceuticals](#) meet safety and efficacy benchmarks.

Such collaborations shorten development timelines and enhance the translation of laboratory findings into clinical applications, ultimately benefiting patients across various species.

Improving Animal Welfare and Quality of Life

Animal welfare and health underpin every stage of translational research. [Veterinary specialists](#) ensure that all research involving animals adheres to strict ethical standards, including the 3Rs principle Replacement, Reduction, and Refinement as outlined in [EU Directive 2010/63/EU](#).

In clinical settings, veterinary specialists directly enhance animal welfare by advancing diagnostic accuracy, refining surgical techniques, and improving recovery outcomes. Whether developing better anaesthetic protocols or studying pain management, their work supports not only the health of animals but also the ethical integrity of biomedical research



Veterinary Expertise as an Engine of Economic and Societal Value

Beyond science and ethics, veterinary specialists contribute to Europe's economy and sustainability goals. Healthy livestock populations lead to safer food systems, higher agricultural productivity, and reduced antibiotic dependency, all key components of sustainable food chains.

A recent study by the [European Commission](#) estimated that improved animal health management could add billions to the EU's agricultural GDP by reducing disease-related losses. This economic perspective reinforces that veterinary expertise is not only a scientific asset, but also a social and financial one. More prominent in recent years, veterinary specialists contribute

enormously to the prevention of emerging infections crossing over to human pandemic events, such as [avian influenza](#).

Building a Healthier Future Through Collaboration

The future of medicine depends on cross-disciplinary collaboration. Veterinary specialists, with their expertise in animal physiology, pharmacology, and [infectious disease](#), provide critical insights that drive the [One Health](#) agenda forward. Their work supports vaccine development, antimicrobial stewardship, and preparedness for future pandemics.

The [European Board of Veterinary Specialisation \(EBVS\)](#) continues to uphold high standards of education and certification across its 38 recognised specialties, ensuring that veterinary professionals are equipped to meet tomorrow's challenges in medicine, science, and public health.



Recognising the Value of Veterinary Specialists

Veterinary specialists are not just caregivers for animals; they are essential contributors to global health, scientific discovery, and innovation. By supporting translational medicine, advancing pharmaceutical research, and protecting both animal and human well-being, their expertise strengthens the health systems that sustain society. To learn more about how certified veterinary specialists are shaping the future of medicine and One Health, visit <https://www.ebvs.eu/>.

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