

Invited Lecture 6

From registration to teaching – how Vet-OncoNet contributes to the training of veterinary doctors

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Abstract

Background: Vet-OncoNet [1] is a national platform in Portugal dedicated to collecting and analyzing data on animal neoplasms, driven by a One Health vision. More than a database, Vet-OncoNet is a collaborative ecosystem connecting veterinary professionals, academic institutions, and laboratories to improve animal health, promote comparative oncology, and drive data-informed decision-making [2-4]. **Objective:** This presentation aims to demonstrate how Vet-OncoNet contributes to the academic training of future veterinary doctors at the Institute of Biomedical Sciences Abel Salazar (ICBAS), University of Porto. **Methods and Experience:** Vet-OncoNet actively collaborates with undergraduate students enrolled in the Epidemiology course at ICBAS. Students engage in hands-on learning by exploring real-world data, formulating hypotheses, conducting descriptive analyses of selected tumors, and presenting their findings in a final monograph. Through this experience, students strengthen their skills in Excel (including pivot tables and basic analytics), Power BI, and even ArcGIS for geospatial visualization. Moreover, final-year students undertake curricular internships within Vet-OncoNet, allowing them to deepen their understanding of the Evidence-Based Veterinary Medicine (EBVM) cycle—Ask, Acquire, Appraise, Apply, and Act. These students participate in multidisciplinary projects using R-based tools, including RShiny applications, and begin to explore the integration of artificial intelligence solutions in veterinary data analysis. So far 3 PhD collaborations, 2 MSc Thesis, 5 final graduation integrated masters UP, 16 monographs have been produced. At the master's level, students from both Oncology and Public Health programs collaborate with Vet-OncoNet in various research areas. These include the analysis of the national companion animal registry (SIAC) [5,6] and oncology [7] and comparative studies [8] involving both animal and human data. These experiences foster critical thinking, scientific communication, and advanced data analysis skills, preparing students for evidence-based and data-driven veterinary careers. **Conclusions:** This project places veterinary students at the intersection of animal health and the expanding field of data science, equipping them with practical tools and critical thinking skills essential for modern evidence-based practice. Thus, Vet-OncoNet is not just a database—it's a living tool, driven by the One Health vision, connecting science, society, and education.

Keywords: data-driven learning; epidemiology; evidence-based veterinary medicine; One Health

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