

In Memory of Dr. med. vet. Gerold Sievers Prekehr (1943–2023)

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“Scientific curiosity makes you wonder: what’s underneath that rock? And when you finally raise that rock to discover what is below, you will always find many more little rocks – and now you want to know what’s beneath each one of them”

Gerold Sievers Prekehr

Gerold Sievers Prekehr was an eminent veterinary parasitologist and former Full Professor at the Faculty of Veterinary Sciences of the Universidad Austral de Chile (UACH) in Valdivia. After obtaining his veterinary degree at the UACH, Prof. Sievers joined the University’s Veterinary Hospital as lecturer. He obtained his doctorate (Dr. med. vet.) in 1973 at the University of Veterinary Medicine Hannover (TiHo), Germany, with a thesis describing a novel method to isolate infective larvae of parasitic nematodes from pasture¹. Following a period as scientist in the German pharmaceutical industry, Prof. Sievers returned to Chile in 1975 to take a position as Professor and Director of the Laboratory of Parasitology in the Institute of Animal Pathology at the UACH, roles that he held until his retirement in 2009.

During his academic and scientific career of over 40 years, Prof. Sievers studied the biology, epidemiology, diagnosis, prevention and control of several parasites of veterinary and zoonotic importance in Chile. He performed long-term research studies on the seasonal dynamics of parasite egg excretion and development of infective stages of parasitic nematodes of cattle, sheep, horses and cervids in different environments in southern Chile^{2,3,4}. Prof. Sievers also investigated the life cycles and epidemiology of the cattle horn fly *Haematobia irritans* and the equine bot flies *Gasterophilus*⁵, as well as the biology and economic impact of the salmon parasites *Ceratomyxa gaudichaudii*⁶ and *Caligus rogercresseyi*. This seminal work provided new understanding on local infection dynamics of several parasite-host systems, allowing the design of prevention and control strategies of endoparasites and ectoparasites based on the principles of “prophylaxis” (management practices of contaminated areas and of animals to avoid clinical parasitoses) and “metaphylaxis” (strategic administration of antiparasitic drugs to reduce the parasite infective stages in the environment). Furthermore, Prof. Sievers performed extensive studies on the field efficacy of anthelmintics in cattle and horses, reporting the first cases of anthelmintic resistance in equine and bovine nematodes in Chile^{7,8}, as well as testing the effects of bioactive forages as complementary parasite control strategy in cattle⁹. In addition, he conducted investigations on the fertility and viability of hydatid cysts of *Echinococcus granulosus* in cattle¹⁰ and on the environmental contamination with *Toxocara canis* eggs.

For almost 40 years, the didactic and engaging teaching classes of Prof. Sievers captivated the attention of many generations of veterinary students, often combining the

¹ Sievers G. 1973. Methode zur Gewinnung von III. Strongylidenlarven aus dem Weidegras. Diss. Dr. med. vet., Tierärztliche Hochschule Hannover

² Sievers G. 1982. Epizootiología de las trichostrongilosis de los terneros en Chile. En: VIII Jornadas Médico-Veterinarias, 26-28 de agosto de 1982, Valdivia, Chile, 93-112

³ Sievers G et al. 1998. Annual variation in the distribution of bovine trichostrongyle infective larvae on pasture grass in Valdivia, Chile. Arch. med. vet. 30 (1), 47-54

⁴ Sievers G et al. 2002. Annual study of the of egg and oocyst outputs of gastrointestinal parasites and lungworm larvae in a sheep station of Magallanes, Chile. Arch. med. vet. 34 (1), 37-47

⁵ Sievers G and Weber, B. 2005. Egg laying period of *Gasterophilus nasalis* and *G. intestinalis* on horses. 8th Region, Chile. Arch. med. vet. 37 (2), 169-172

⁶ Sievers G et al. 1996. The effect of the isopod parasite *Ceratomyxa gaudichaudii* on the body weight of farmed *Salmo salar* in southern Chile. Aquaculture 143, 1-6

⁷ Sievers G and Alocilla A. 2007. Anthelmintic resistance of bovine nematodes against ivermectin in two farms of the south of Chile. Arch. med. vet. 39 (1), 67-69

⁸ von Samson-Himmelstjerna et al. 2002. Comparative use of faecal egg count reduction test, egg hatch assay and beta-tubulin codon 200 genotyping in small strongyles (Cyathostominae) before and after benzimidazole treatment. Vet. Parasitol. 108, 227-235

⁹ Sievers G and Nannig S. 2006. Effect of the supplementary feeding with *Plantago lanceolata* on the egg output of gastrointestinal nematodes in calves. Arch. med. vet. 38 (3), 233-238

¹⁰ Muñoz JP and Sievers G. 2005. Study of the fertility and viability of bovine hydatid cysts in Chile. Parasitol. Latinoam. 60, 69-73

¹¹ Sievers G. 2022. Parasitosis del Bovino: Epidemiología y Posibilidades de Control. Valdivia

explanation of the sophisticated parasites' life cycles with related (classical) musical pieces. In parallel to his academic activities, Prof. Sievers was a regular guest speaker on parasite control for veterinarians and livestock producers, always very keen to translate scientific findings to the end users, giving more than 140 talks to different audiences between Santiago and Punta Arenas.

Prof. Sievers published his works in 40 scientific articles in indexed journals, several of these in the predecessor of this Journal (*Archivos de Medicina Veterinaria*), and as supervisor of more than 80 undergraduate theses and postgraduate dissertations. He presented his research at many international and national scientific conferences, including presentations at the International Congresses of the World Association for the Advancement of Veterinary Parasitology (WAAVP), at the Chilean Society of Parasitology (SOCHIPA) and in the symposiums of the Rioplatense Meeting of Veterinary Endoparasitologists with experts from Argentina, Uruguay, Brazil and Chile. He was a member of the Colegio Médico Veterinario of Chile (1969–2009) and of SOCHIPA (1977–2009), which awarded him a recognition for his work in 2004.

After his retirement from the UACH, Prof. Sievers remained active as supervisor of veterinary theses and as an independent scientific consultant, always developing innovative methods for his new research studies, and in 2022 published a book for veterinary practitioners summarising his knowledge on the epidemiology and control of cattle parasites in Chile¹¹. He died in Valdivia on August 22, 2023. He will be remembered as a man devoted to his family and to his friends, as a dedicated and passionate teacher, supervisor and veterinary parasitologist with ceaseless scientific curiosity, and as an example of consequence, modesty and intellectual honesty.



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