

Buiatrics as a strategic infrastructure for global food security: A Brazilian presidency and a new practical phase at the World Association for Buiatrics

Ricardo Spacagna Jordão^{1,*}  <https://orcid.org/0000-0003-0804-2056>

1. Instituto Biológico  – Laboratório de Inovação em Produtos Imunobiológicos – São Paulo (SP), Brazil.

*Corresponding author: spacagna@gmail.com

ABSTRACT

The World Association for Buiatrics (WAB), founded in 1962, is a global scientific network connecting approximately 70 affiliated countries across Europe, the Americas, Africa, Asia, and Oceania. This essay marks the beginning of a new WAB leadership – the first presidency exercised by a Brazilian and the first outside the traditional North America – Europe axis – and proposes a practical agenda for international technical integration. Buiatrics, conceived as the health and production management of production ruminants, is a structural component of food security: it supports herd health, sanitary credibility, and the safety of products reaching consumers. In a multipolar production landscape shaped by environmental pressures and intensified trade, the essay argues for scientific neutrality, ethical integration across the value chain, and operational mechanisms that convert expertise into measurable sanitary impact. Brazil's experience with structured brucellosis and tuberculosis control is presented as a replicable model for other contexts. A global talent network is proposed as an instrument for knowledge transfer, capacity building, and sustained cooperation under a modern One Health framework.

Keywords: buiatrics; production ruminants; food security; One Health; sanitary governance; international cooperation.

The World Association for Buiatrics (WAB) has, for more than six decades, served as the primary international forum for scientific exchange in buiatrics. Its biennial World Buiatrics Congress connects clinicians, researchers, regulators, and industry stakeholders around shared challenges in ruminant health and production. In a world where production systems, risks, and expectations are increasingly diverse, this global structure matters: it is a platform where different realities can be translated into a common technical language and shared solutions.

This essay is intentionally programmatic. It is written as the opening statement of a new WAB presidency – historically the first led by a Brazilian and the first outside the traditional North America – Europe axis. That fact is not a slogan; it is a signal of a multipolar livestock world. Previous administrations strengthened statutes, governance, and the scientific standing of the association. The institutional foundation is solid. The practical question now is what we do with that foundation: how we turn scientific exchange into structured cooperation, and how we deliver tangible sanitary progress where it is most needed.

Buiatrics is often reduced, in common usage, to bovine clinical medicine. That is incomplete. Buiatrics should be understood as the science and practice that sustains health and productivity in production ruminants. It connects individual animal care to herd-level management, surveillance, diagnostics, prevention, and program design. In other words, it is part of the infrastructure that supports safe food: without robust animal health systems, production stability weakens, and food supply becomes more vulnerable to shocks and misinformation (Food and Agriculture Organization, 2021).

Ruminant production has become distinctly multipolar. Tropical and subtropical regions are increasingly shaping the global meat and milk supply, each with distinct epidemiological profiles, management constraints, and climate-related pressures. At the same time, international trade is more sensitive than ever to sanitary credibility. Harmonized standards and transparent sanitary governance are not bureaucratic rituals; they are prerequisites for market stability and consumer trust (Codex Alimentarius Commission, 2022; World Organisation for Animal Health, 2023). When animal health is treated as a technical afterthought, the result is not only disease risk – it is reputational risk, commercial disruption, and avoidable losses.

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The One Health concept has also matured. It is now formally structured through a quadripartite alliance composed of the World Health Organization (WHO), WOA, FAO, and United Nations Environment Programme (UNEP), and articulated in the One Health Joint Plan of Action (2022-2026) (FAO; UNEP; WHO; WOA, 2022). This framework recognizes the interdependence of human, animal, and environmental health, bringing into the same discussion climate pressure, land use, antimicrobial resistance, and ecosystem stability. For ruminant systems, this is not abstract theory. Animal health practices influence antimicrobial stewardship, waste management, and environmental interfaces where risks may amplify. Buiatrics is therefore positioned not only within animal health, but within the broader technical responsibility of sustainable food systems.

International sanitary cooperation operates in politically heterogeneous environments. In some contexts, institutional fragility, cultural barriers, or geopolitical tensions interfere with long-term program continuity. Yet pathogens do not recognize political borders. Zoonoses such as brucellosis and bovine tuberculosis remain relevant across continents, affecting both public health and productivity (Office International des Epizooties, 2021; Pan American Health Organization, 2019). This is precisely why buiatrics must defend scientific neutrality. Buiatrics has no party and no geopolitical alignment; its commitment is sanitary, technical, and measurable. Maintaining that stance is often difficult, but it is indispensable for building trust and enabling cooperation.

A practical presidency must therefore focus on bridges. The first bridge is among countries, connecting those with mature programs to those that are building capacity. The second bridge is among professional experiences: integrating field clinicians, diagnosticians, epidemiologists, food safety specialists, and regulators into a single operational ecosystem. The third bridge is across the production chain: engaging producers, associations, public services, laboratories, and private technology providers under transparent rules.

Brazil offers a concrete example of how scientific communities can catalyze public policy. The technical mobilization of professionals contributed to the establishment of the National Program for the Control and Eradication of Brucellosis and Tuberculosis (Programa Nacional de Controle e Erradicação da Brucelose e Tuberculose Animal [PNCEBT]) (BRASIL, 2001). These diseases remain globally significant zoonoses, and control requires sustained governance, diagnostic capacity, certification logic, and consistent field implementation (OIE, 2021; PAHO, 2019). The broader lesson is replicable: associations can help translate science into policy instruments, aligning the productive sector and public veterinary services around shared outcomes.

This model can be extended beyond a single disease. Where countries face emerging or neglected priorities – whether zoonotic control, reproductive health, neonatal mortality, or antimicrobial stewardship – structured programs can be designed with clear targets, surveillance indicators, training pipelines, and transparent certification incentives. By learning from different realities, countries can avoid repeating predictable mistakes and can accelerate program maturity.

A second priority for this new phase is ethical integration with the private sector. Industry participation must not be limited to event sponsorship, nor should it be treated as inherently suspicious. Vaccines, diagnostics, digital monitoring tools, and quality systems are often developed or scaled by private actors. The key is governance: explicit conflict-of-interest rules, transparent disclosure, and scientific independence in technical recommendations. When managed properly, responsible collaboration strengthens sanitary programs and accelerates innovation (WOA, 2022).

A third priority is modern communication. Digital platforms are not an accessory; they are a battleground of narratives. In an environment where simplified or distorted claims about animal production spread rapidly, technical silence is not neutrality – it is absence. The WAB must be present with evidence-based messaging, practical guidance, and public-facing explanations that protect both science and trust. This is not about marketing; it is about sanitary responsibility and scientific literacy.

To convert cooperation into operational reality, this leadership proposes the creation of a global talent network in buiatrics. Organized by areas of expertise – zoonotic disease control, epidemiology, certification systems, laboratory diagnostics, animal welfare, sustainable production, and program governance – this network would match needs with proven experience. It would support technical missions, remote mentorship, training modules, and peer-to-peer institutional support. Such a mechanism would not replace national decision-making; it would enable technical solidarity. Strengthening national systems ultimately improves the stability of international food markets and food security (FAO, 2021; WOA, 2023).

In summary, buiatrics is a strategic pillar of global food security. Its role transcends individual clinical practice and extends to sanitary governance, economic stability, environmental sustainability, and public health protection. This new WAB leadership, conducted by a Brazilian for the first time in the association's history, assumes a clear commitment: expand global representation, defend scientific neutrality, and transform shared expertise into structured, measurable action. The health of production ruminants and the safety of food products do not belong to geopolitical blocs. They belong to shared sanitary responsibility grounded in science.

AVAILABILITY OF DATA AND MATERIAL

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

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ETHICAL APPROVAL

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DECLARATION OF USE OF ARTIFICIAL INTELLIGENCE TOOLS

Artificial intelligence tools were used solely for linguistic refinement and structural editing of the manuscript. All conceptual content, interpretations, and opinions expressed in this essay are the sole responsibility of the author.

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