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**EDITORIAL****Milestone Reflections: 50 Issues of JKIMSU***G. Himashree**Editor-in-chief, Journal of Krishna Institute of Medical Sciences University,  
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**Milestone Reflections: 50 Issues of JKIMSU**

Launched as a bi-annual journal in 2012, JKIMSU celebrates its 50th issue after 14 years, featuring nearly 1000 peer-reviewed articles on clinical advancements, public health, and biomedical innovation amid global challenges such as pandemics and antimicrobial resistance. This enduring journey owes its strength to collective dedication-innovative submissions from authors, rigorous evaluations by reviewers, and steadfast institutional support.

Milestones are not merely numerical markers; they clarify continuity of purpose and invite reconsideration of foundational ideas. Among the most enduring in biomedicine is the question of how the immune system distinguishes self from non-self.

This editorial seeks to engage the academic community with contemporary advances in immunology—particularly the evolving understanding of self and non-self-while placing them in disciplined dialogue with the age-old sanātana conception of non-dual unity.

**The Molecular Governance of Immune Identity**

Immune recognition is structured through peptide presentation on Major Histocompatibility Complex (MHC) molecules, deletion of strongly autoreactive lymphocyte clones during thymic maturation, and peripheral regulatory circuits that constrain residual autoreactivity. Because negative selection cannot eliminate all self-reactive clones, active peripheral

control mechanisms are indispensable for maintaining physiological equilibrium [1].

In 2023, the Nobel Assembly recognized discoveries demonstrating that innate immune activation by synthetic Messenger Ribonucleic Acid (mRNA) depends critically on nucleoside composition. Substitution with modified nucleosides such as pseudouridine attenuates Toll-like receptor signaling while preserving protein translation—a principle that enabled clinically viable mRNA-based vaccination during the COVID-19 pandemic [2].

In 2025, the Prize acknowledged work defining the cellular and molecular basis of peripheral immune tolerance. The description of CD4<sup>+</sup>CD25<sup>+</sup> suppressive T lymphocytes, together with the identification of FOXP3 mutations as the cause of Immune Dysregulation, Polyendocrinopathy, Enteropathy, X-linked (IPEX) syndrome, established regulatory T cells (Tregs) as a distinct lineage essential for immune restraint [1,3-5]. FOXP3<sup>+</sup> Tregs exert control through CTLA-4-dependent modulation of antigen-presenting cells, secretion of IL-10 and TGF-β, metabolic competition, and tissue-repair mediators [5].

Autoimmune pathology demonstrates the clinical implications of regulatory failure. In rheumatoid arthritis, defects in Treg number and suppressive capacity contribute to sustained synovial inflammation and persistence of pathogenic effector T cells. Comparable perturbations are observed across several organ-specific autoimmune disorders [6].

Collectively, these advances recalibrate the classical self/non-self-framework. Immune identity is not merely recognition; it is the emergent outcome of continuously regulated equilibrium.

### **Non-Duality in the Sanātana Tradition: An Epistemological Analogy**

Early immunological models relied heavily on binary distinction: self-versus non-self. Contemporary understanding emphasizes modulation, context, and feedback. Distinction remains biologically necessary; absolutism does not.

Advaita Vedanta advances a philosophical critique of rigid duality. The *Brihadaranyaka Upanishad* speaks of a realization in which multiplicity is no longer apprehended as ultimate (IV.3.23) [7]. The *Chandogya Upanishad* articulates “Tat Tvam Asi” (VI.8.7), dissolving the apparent separation between knower and known [7, 8]. These statements are metaphysical, not biological. Yet as epistemological metaphors, they illuminate an important caution: conceptual binaries may organize experience without fully capturing underlying coherence.

Autoimmunity is not metaphysical error; it is dysregulated biology. Yet it offers a striking illustration of imbalance-when defensive discrimination proceeds without adequate restraint. Immune tolerance does not abolish recognition; it calibrates it. Regulatory T cells do not negate immunity; they

preserve organismal integrity by preventing self-directed injury [1, 5].

Understood in this limited analogical sense, Advaita does not collapse science into philosophy. It instead underscores a broader intellectual pattern: mature systems evolve from rigid opposition toward dynamic integration. The trajectory of immunology-from clonal deletion models to active regulatory networks-reflects that deepening sophistication.

### **Continuing the Discipline**

As we mark our 50th issue, gratitude is accompanied by responsibility. Scientific paradigms evolve; editorial standards must remain exacting. The maturation of the self/non-self-concept-from deletion alone to regulated equilibrium demonstrates how medical science advances: through incremental molecular insight, methodological rigor, critical scrutiny, and disciplined interpretation.

Our charge remains unchanged: to publish work that withstands methodological examination, to encourage inquiry that is innovative yet precise, and to sustain a forum where science serves clinical and societal good.

Issue 50 signals continuity, not conclusion. We proceed with clarity of purpose toward the work ahead.

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