Curriculum Vitae

Dr. Porika Saikrishna | porikasaikrishna@gmail.com| +91 9908703037| Hanamkonda

Medical Registration Number: 11219. | IADVL Membership Number: 15920

Career Objective

To pursue a career in dermatology, contributing to patient care, research, and advancements in the field of dermatology and venereology, while continually enhancing my knowledge and clinical expertise.

Educational Qualifications

MD in Dermatology, Venereology & Leprosy (DVL), Guntur Medical College (2022–2025)

MBBS, Kakatiya Medical College, Warangal (2013–2019)

Clinical Experience

Postgraduate Resident, Department of Dermatology, Guntur Medical College

- Managing outpatient (OP) and inpatient (IP) dermatology cases.

- Performing dermatological procedures including biopsies, cryotherapy, laser treatments.

- Actively involved in clinical case discussions and academic presentations.

Internship, Kakatiya Medical College

- Rotational internship with experience in various medical and surgical specialties, including dermatology.

Research & Academic Interests

- Pathogenesis of atopic dermatitis
- Metabolic complications of psoriasis
- Ultrasound applications in dermatology and leprosy
- Recent advances in keloid management

Publications & Conferences

- Published case on Dystrophic Epidermolysis Bullosa (IJDMSR, Vol 5, Issue 3)
- Presented on Darier's disease (AP Cuticon, Eluru)
- Award paper on atypical leprosy (Basics Hyderabad)

Skills & Competencies

- Dermatological diagnostics and therapeutic procedures
- Dermoscopy and histopathological interpretation
- Cosmetic dermatology procedures (lasers, chemical peels, fillers)

Certifications & Memberships

- Member, Indian Association of Dermatologists, Venereologists, and Leprologists (IADVL)

Languages

- English (fluent)
- Telugu (Native)
- Hindi (proficient)

References

Available upon request.

FATHER COLOMBO INSTITUTE OF MEDICAL SCIENCES

(A Unit of Medicare Educational Trust)

Father Colombo Health City, H.No. 19-3-159/B, Hunter Road, Rangasaipet (Post),
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Date: 07/07/2025

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr. P. Saikrishna, MBBS, MD (Dermatology, Venereology & Leprosy), is currently working as a Senior Resident in the Department of Dermatology at Father Colombo Institute of Medical Sciences, Warangal, since 01/03/2025.

Dr. P. Saikrishna has expressed a keen interest in pursuing a research fellowship in dermatology. The department fully supports his academic and research pursuits and is willing to act as the host institution for his proposed research project titled:

"From Th2 to JAK-STAT: Tracing the Shifting Paradigm of Atopic Dermatitis Pathogenesis Over 25 Years"

We confirm that Dr. P. Saikrishna will be provided access to relevant academic resources, clinical data, and faculty mentorship to facilitate successful execution of the research. The study will be conducted in accordance with institutional protocols and ethical guidelines.

This certificate is issued upon his request to support his application for the above-mentioned fellowship.

Sincerely

Fr. G. Chinnappa Reddy,
Director,
FCIMS-MGH.

FATHER COLOMBO INSTITUTE OF MEDICAL SCIENCES
WARANGAL.
MEDICARE EDUCATIONAL TRUST

Title: From Th2 to JAK-STAT: Tracing the Evolving Paradigm of Atopic Dermatitis Over 25 Years

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1. Introduction Atopic dermatitis (AD) is a chronic, relapsing inflammatory skin disorder that has historically been classified as a Th2-skewed immune response. Over the past 25 years, our understanding of its pathogenesis has evolved dramatically. Once regarded primarily as an allergic condition, AD is now recognized as a complex interplay of genetic, immunologic, and barrier-related factors. This review traces the paradigm shift in AD pathogenesis, from the Th2-centric model to a broader immunological framework that culminates in the targeting of the Janus kinase–signal transducer and activator of transcription (JAK-STAT) pathway.

Objective: To highlight the chronological evolution of AD pathogenesis and its impact on the development of targeted therapies.

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2. Methods A narrative review methodology was adopted. Key studies from 1998 to 2023 were selected from PubMed, Scopus, and high-impact dermatology and immunology journals. Articles were grouped by decade and analyzed for major discoveries in immunopathogenesis, barrier dysfunction, and treatment translation.

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3. Results

3.1. 1998–2007: The Th2 Era - Dominant cytokines: IL-4, IL-5, IL-13, IL-31. - Hallmarks: Eosinophilia, IgE elevation, acute eczema flares. - Filaggrin (FLG) mutation identified (late 2000s), but pathogenesis still viewed through a Th2 lens.

3.2. 2008–2015: The Barrier-Centric and Multilineage Era - Barrier dysfunction elevated to central role (FLG loss-of-function mutations). - Keratinocyte-derived cytokines (TSLP, IL-33, IL-25) shown to activate Th2 cells. - Chronic lesions revealed Th1/Th17/Th22 signatures. - Asian and intrinsic AD subtypes characterized by greater Th17/Th22 skewing.

3.3. 2016–2023: The JAK-STAT & Targeted Therapy Era - Discovery: Multiple AD-related cytokines converge on the JAK-STAT pathway. - Drugs developed: Dupilumab (anti-IL-4Rα), upadacitinib, abrocitinib, baricitinib. - Rapid clinical translation: JAK inhibitors offer systemic control and rapid itch reduction. - Emphasis on endotype-driven therapy and biomarker research.

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4. Discussion This evolution reflects a shift from a narrow Th2 allergy model to a systems-level understanding of AD. Barrier dysfunction is now seen as a driver rather than

consequence. The identification of Th22 and Th17 cytokines explains refractory phenotypes and regional variations (e.g., darker skin types with pigmentary sequelae). The convergence of cytokine signaling through the JAK-STAT pathway has enabled the development of targeted small molecules that offer broader efficacy than biologics alone.

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5. Conclusion Atopic dermatitis pathogenesis has undergone a major shift over the last 25 years. This journey—from Th2 dominance to JAK-STAT convergence—has guided therapeutic advances that are reshaping AD management. Future research must now focus on precision medicine approaches, incorporating molecular profiling and long-term safety of emerging therapies.

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6. References

1. Eyerich K, et al. Immunological heterogeneity in atopic dermatitis. Allergy. 2013.
2. Guttman-Yassky E, et al. Atopic dermatitis: the role of barrier dysfunction and immune dysregulation. J Allergy Clin Immunol. 2016.
3. Weidinger S, et al. Understanding the role of JAK inhibitors in AD. Nat Rev Immunol. 2020.
4. Paller AS, et al. Emerging therapies in AD: JAK inhibition. Lancet. 2021.
5. Frontiers in Immunology. The JAK-STAT pathway in AD pathogenesis. 2022.