

Review of: "The Rural-Urban Divide: Insights from Immuno-Genetic Profiles and Implications for Health"

Santosh Dulal

Potential competing interests: No potential competing interests to declare.

Comments:

Abstract:

- The abstract requires more scientific rigor, incorporating numerical values such as gene expression fold-differences in comparison to controls.
- It should concisely encapsulate the Background, Aim, Methods, Results, and Conclusion within a 200-word limit.

Introduction:

- Address existing gaps in the latest literature regarding genetic variation between rural and urban populations, emphasizing the impact on disease susceptibility and immunological aspects both globally and within the specific country context of Sudan.
- Clearly articulate hypotheses or research questions guiding the study.

Methodology:

- Provide a clear and detailed description of the methodology, including statistical procedures with justification.
- Explicitly state sample storage methods and elaborate on how sample quality was maintained over the years since 2000.
- Clearly mention when molecular tests were performed on collected samples and detail the quality assurance methods.

Ethics Statement:

- Include relevant ethical code numbers for samples and present a comprehensive Table 1 with sample-demographic characteristics.
- Clearly outline inclusion and exclusion criteria.

Results:

- Enhance scientific credibility by including standard deviations or errors in average readings in Tables 1, 2, and 3.
- Explain the notable two-fold difference in Average IgE levels (400 vs 222) in Salala within one year (2000 vs 2001).
- Statistically poor experiment – have you performed a triplicated experiment? Then mention standard deviation/error in

Avg. values in each Figures 1, 2, and 3.

Discussion:

- Highlight key findings, compare and contrast observed differences, and relate findings to the context.
- Discuss implications in the context of previous studies and outline how these findings contribute to guiding future research.

Conclusion:

- Summarize main findings with numerical support, emphasizing their significance in the frontiers of epigenetics, immunology, and public health.