

EDITORIAL

Pioneering Precision Medicine – Insights from This Issue and Beyond

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This issue of *SMART-MD Journal of Precision Medicine* showcases groundbreaking advancements that propel us toward a future where personalized care transforms patient outcomes. We wrap up a year-long focus on diabetes mellitus with innovative genetic insights into type 2 diabetes (T2D) that may direct treatment ⁽¹⁾, a manuscript outlining how radiologists interpret pancreatic CT scans for all healthcare providers ⁽²⁾, and spotlight how emerging economies like India can leapfrog traditional healthcare models through strategic precision medicine adoption. ⁽³⁾ These articles not only inform but inspire, demonstrating how cutting-edge tools can make complex diseases more manageable and equitable.

A landmark genome-wide association study (GWAS) on type 2 diabetes (T2D) recently identified eight genotype-phenotype subtypes using polygenic risk scores (PRS). ⁽⁴⁾ In this issue, co-author Mark Goodarzi, MD, PhD, demystifies these findings and shows how calculating the eight PRS for a patient *could* personalize initial T2D treatments—potentially revolutionizing management and reducing trial-and-error.⁽¹⁾ While prospective validation is needed, this expert perspective is a vital step forward, igniting excitement for PRS applications in everyday practice.

India, as an emerging economy with strengths in IT and pharmaceuticals, faces challenges in delivering affordable "Western medicine" to its vast population, especially in rural areas with specialist shortages. Drs. Agarwal and Makharia outline a visionary framework for precision medicine in India, leveraging existing infrastructure while addressing barriers like access and cost. ⁽³⁾ This approach could serve as a global model, enabling developing nations to achieve high-quality care efficiently and cost-effectively.

Looking ahead, 2026 promises even more innovation for *SMART-MD JPM*. Our Winter issue will delve into expert pain syndrome management, with additional themed editions on key gastroenterology topics.

To bridge gaps in precision medicine literature—where massive datasets like UK Biobank dominate but overlook individual variability—we're introducing Case Studies and Letters to the Editor. These will spotlight rare genetic disorders, variable phenotypes, and real-world applications.

Submit via our website or email the Editor-in Chief at: whitcomb@smart-md.org.

We extend heartfelt thanks to this year's authors—true experts who've generously shared their time and knowledge (See Best of 2025). Their contributions fuel our mission to excite and empower healthcare workers. Dive into this issue and join us in shaping precision medicine's future—your insights could feature next!

References:

1. Goodarzi M. Genetic Risk Scores in Diabetes: Potential for Disease Prediction, Classification, and Precision Medicine. . *SMART-MD Journal of Precision Medicine* 2025;@(4). DOI: <https://doi.org/10.69734/crvc7g84>
2. Baytar Y, Whitcomb DC, Dasyam AK. CT Images of the Pancreas for Beginners. .*SMART-MD JPM*. 2025;2(4):e170 to e85. DOI: <https://doi.org/10.69734/z63m4z16>
3. Agarwal S, Makharia G. Delivering effective, scalable and equitable gastroenterology care in India. . *SMART-MD Journal of Precision Medicine* 2025;2(4). DOI: <https://doi.org/10.69734/p8r7ct85>
4. Suzuki K, Hatzikotoulas K, Southam L, Taylor HJ, Yin X, Lorenz KM, et al. Genetic drivers of heterogeneity in type 2 diabetes pathophysiology. *Nature*. 2024;627(8003):347-57. PMID: 38374256