



Honoring a giant in green genomics: A tribute to Prof. Chittaranjan Kole

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The global scientific community celebrates the extraordinary legacy of **Prof. Chittaranjan Kole**, a visionary scientist, mentor, and pioneer whose lifelong dedication has fundamentally reshaped the fields of plant genomics, molecular genetics, and crop biotechnology.

Warmly revered as the "**Father of Plant Genomics in India**," Prof. Kole's ground-breaking work bridged the gap between fundamental genomics and practical agricultural solutions. Today, as he continues to guide global scientific discourse—including serving as the **Chief Advisor** to *Global Science Today*—his foundational work was recently celebrated in a comprehensive Perspective article titled "**Revisiting the foundation era of plant genomics with a commentary on the pioneering contributions of Prof. Chittaranjan Kole**," published in *The Plant Genome* journal.

A visionary trailblazer in plant genomics

At a time when genome science was in its infancy, Prof. Kole demonstrated remarkable foresight. He was the first Indian scientist to physically map and sequence a plant gene (in barley plants), pioneering the integration of molecular markers and genomic tools into crop breeding. His landmark contributions to Brassica genomics—including

high-resolution mapping, Mendelization of quantitative trait loci (QTLs), and gene/QTL mapping for disease resistance (such as white rust), flowering time, and abiotic stress tolerance—revolutionized climate-resilient crop development.

Recognizing early on the constraints faced by researchers in resource-limited settings, he developed innovative seed protein marker techniques for genetic analysis. This ingenuity democratized plant proteomics and empowered generations of researchers across the developing world.

A global academic ambassador and chronicler of science

Prof. Kole's impact extends far beyond the bench. As an author, editor, and editorial leader, his contribution to scientific literature is unmatched in scope. He has edited **over 200 book volumes** with leading global scientific publishers, systematically documenting the genomes of crucial agricultural crops—from cereals, millets, oilseeds, pulses, fruits, vegetables to industrial crops.

In addition to his prolific authorship, his stewardship as **Chief Advisor of *Global Science Today*** reflects his enduring dedication to maintaining rigor, vision, and accessibility in global scientific publishing.

His leadership as **Vice-Chancellor** of Bidhan Chandra Krishi Viswavidyalaya (BCKV) and Dean at Sam Higginbottom University of Agriculture, Technology Sciences (SHU-ATS) showcased his commitment to academic excellence. Through international visiting scholarships and professorships at institutions such as the Russian Academy of Sciences, University of Wisconsin-Madison, Penn State and Clemson University and he has built enduring scientific bridges across continents.

Championing climate resilience and global collaboration

Prof. Kole understood early that the challenges of climate change and food security required international unity. As the Founder President of *Genome India International (GII)* and Founder President of the *International Climate Resilient Crop Genomics Consortium (ICRCGC)*, he brought together scientists from around the globe to harness genomic tools

for breeding climate-smart crops.

His exceptional efforts have earned him widespread international acclaim, including the **Outstanding Crop Scientist Award** from the International Crop Science Society, the **Lifetime Achievement Award** from the Indian Chamber of Food and Agriculture, and glowing commendations from Nobel and World Food Prize laureates alike.

A lasting impact

Prof. Chittaranjan Kole leaves a profound imprint on plant biotechnology—not only through a vast body of published research and transformative discoveries, but also through a legacy of mentorship and unwavering enthusiasm for green science.

As highlighted by international peers in *The Plant Genome*, his foundational contributions established him as a founding architect of plant genomics research whose framework will guide crop improvement for decades to come.

"Science reaches its highest purpose when it serves humanity—and Prof. Kole's life and leadership remain a testament to that pursuit."