

Seminal Publications

In December, 2012 one of the most prestigious science journals, *Nature*, published a paper titled “[Repeated polyploidization of *Gossypium* genomes and the evolution of spinnable cotton fibres](#)”. This multidisciplinary team research was led by Dr. Andrew Paterson, Dr. Jonathan Wendel, and Mr. Jeremy Schmutz. This publication, which paved the way for sequencing efforts to follow, was the first cotton centric research highlighted in this high impact journal in more than five decades. In April, 2015 *Nature Biotechnology* published a paper titled “[Sequencing of allotetraploid cotton \(*Gossypium hirsutum* L. acc. TM-1\) provides a resource for fiber improvement](#)” which included a high quality draft genome sequence of Upland cotton, *Gossypium hirsutum*. This was another multidisciplinary effort and was led by Dr. Z. Jeffery Chen, Dr. Tianzhen Zhang, and Mr. Jeremy Schmutz. The first U.S. published research to describe cloning a cotton gene, a project led by Dr. Vasu Kuraparthi and his Ph.D. student Ryan Andres, resulted in a December, 2016 *Proceedings of the National Academy of Science* article titled [Modifications to a “LATE MERISTEM IDENTITY1 gene are responsible for the major leaf shapes of Upland cotton \(*Gossypium hirsutum* L.\)”](#). The most recent seminal paper published April, 2020 in *Nature Genetics* was titled “[Genomic diversifications of five *Gossypium* allopolyploid species and their impact on cotton improvement](#)” and featured reference quality genome sequences of Upland cotton and four related tetraploid species. This research was spearheaded by Dr. Z. Jeffery Chen, Dr. Avinash Sreedasyam, and Mr. Jeremy Schmutz.

Most of these research projects have garnered financial support from agencies such as the National Science Foundation, Department of Energy, and USDA-NIFA. This significantly leverages the modest check-off dollars invested by Cotton Incorporated in these excellent research projects.