

Exploring the Complexity of Inheritance Unlocking the Heterogeneity of Inheritance: How Non-Mendelian Genetics Shapes Human Traits "Technology is a strange thing... it gives you great gifts with one hand and stabs you in the back with the other." At first, it seems like Mendel gave us a simple way to understand inheritance: dominant and recessive genes, with neat ratios like 3:1 and 9:3:3:1. But as science advanced, it turned out that human genetics is a lot messier than what Mendel saw in his pea plants. If someone inherits one A allele (I^A) and one B allele (I^B), their blood type is AB, meaning both antigens appear on their red blood cells. The ABO blood group system doesn't follow simple dominant or recessive rules. That quote from author Carrie P. Snow really hits when we think about genetics. Instead, it shows something called codominance--when two alleles are both fully expressed. Take blood types, for example.