Research on the neural mechanisms underlying Fragile X is helping to resolve some of the most fundamental problems in neuroscience. In the coming decades, an array of important discoveries will emerge from this research and these discoveries will, in return, help develop new therapeutic and diagnostic methods for not only Fragile X but also other developmental brain disorders such as autism.

Like ongoing research into Huntington, DMD, and many other genetic afflictions, studies of Fragile X have been galvanized by those most directly affected: the families and loved ones of sufferers. FRAXA, the Fragile X Research Foundation, has been hugely effective in raising money and in inducing Congress to support Fragile X research. Though some scientists may cynically view such groups merely as agencies that offer individuals in dire straits the comforting illusion that they are not entirely powerless, experience shows that dedicated, resourceful, and, above all, motivated organizations like FRAXA sometimes do hold the key to cracking these diseases against the long odds. To those who take the biggest gambles - financial and scientific - sometimes, with luck, go the biggest rewards.

We have every reason to believe that in the next decade we will gain a profound understanding of disorders resulting from the Fragile X mutation and therefore we will be able to begin to develop effective new therapeutic approaches. It is likely that anything we learn about Fragile X will serve as a model for studying autism and help us to understand other disorders of memory those associated with Down's syndrome and with Alzheimer's disease. . . .