All I remember from the interview was: “We can work that out for you.” I had just become a new student researcher for HOPES, and already I had the freedom to choose whatever research project I was interested in. HOPES (Huntington’s Outreach Project for Education at Stanford) is a student and faculty-run website project that provides the general public with up-to-date scientific information on Huntington’s Disease (HD) in everyday language. Video clips, interactive timelines, and articles summarizing findings in medical journals are just a few examples of the group’s online postings (http://hopes.stanford.edu). And my first proposed project was perfectly in line with the group’s goal of educating the public through creative presentation: I wanted to create a cartoon children’s book explaining the genetics of HD.

Writing for HOPES is not just about writing—it’s about collaborating with different people and applying resources in order to make medical information about HD clear and entertaining. I chose to center my project on children, as children’s education would vastly increase the reach of the HOPES website. Specifically, I wanted to write about the heredity of HD for young children between the ages of eight to ten. With my target audience in mind, I began sketching cartoons of googly-eyed flies and curliqued arms of pea plants to animate the genetics of heredity. Based on these sketches, Stanislav Jourin—the graphic artist for this project—was able to bring my ideas to life in a way that I never could have.

To make sure that our book would not overlap with currently available educational materials, Stanislav and I researched local bookstores. After hours of searching, we were astonished to discover that there were virtually no children’s books on specific diseases in teaching specialty stores or mainstream bookstores. Instead, we found books that either glossed over genetics or were too advanced for young children. Furthermore, the quality and creativity of illustrations in these books were obsolete. The rare find of a humorous cartoon book—which only covered general health topics—pointed to an obvious gap in children’s educational literature that needed to be filled.

Our research prompted us to conclusively decide that we must create this cartoon gene book. Additionally, the research helped me to make decisions regarding my narrative format by exposing me to the most effective writing styles. Some educational stories tell of a child who discovers a lesson through his own mishaps. Others have children explaining lessons to one another. Still other traditional stories contain an omniscient narrator. Finally, more modern books introduce a comical character that narrates the story of a child learning a lesson. Conversations with teaching specialty personnel led me to conclude that children found the last style most appealing: the character had enough distance from the protagonist child to make the story hu-
morous, but was close enough to the subject material to provide educational understanding.

I merged several of the styles together to make the narration of genetics as entertaining as possible. The main narrator and star of the book, Gensen, is a naïve gene who doesn't know his own purpose as the gene responsible for HD in a human cell (creatively called Cell). Fortunately, Gensen comes across a magical Ball, who takes him on an educational adventure to teach him about the importance of genetics to the Cell.

Together, Ball and Gensen travel back in time to visit Mendel's garden, where they learn about Mendel's famous pea plant experiments and heredity by talking to Patsy Pea Plant. They also take the time to shrink themselves sufficiently so as to investigate the structure of DNA. Through a conversation with Rosalind Franklin, they learn how DNA sequences code for specific proteins. Gensen returns back to Cell where he meets Kromie, the Chromosome 4 of which Gensen is a part. In the end, Gensen puts together all the genetics lessons he has learned to understand how HD causes its symptoms. While I cannot spoil the ending of the story, I can tell you its take-home message: scientists are working around-the-clock for a cure that will allow the HD community to continue to hope. Our group is thus appropriately titled HOPES.

A few sample illustrations, which appear throughout the book, are shown below. We plan to make the story available in several multimedia forms, as well as in an easy-to-print form. There are also plans to publish the book in adapted forms, such as video à la Veggie Tales.

With exciting plans for the future, HOPES continues to be a model student-research group by presenting current research and education to the HD community in clear and creative ways. Our outreach efforts remind people with HD that there are scientists constantly working on their behalf in the research arena, and people like members of HOPES that are promoting this research through accessible education. With a more recent focus on educating youth, HOPES is committed to ensuring that future generations will continue making innovative contributions to the presentation and dissemination of scientific research.