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The experience I have had with Dr. Goldberg over the past two quarters cannot be summed up in a hackneyed phrase or saying. Dr. Goldberg has affected my life in too profound a manner for this to be possible by awakening and developing within myself a deep love of teaching. Dr. Goldberg has passed to me some of his immeasurable talents for exciting students to the joys of learning and performing science. I have witnessed first hand the growth of student's knowledge and more importantly their thought processes under Dr. Goldberg's unique approach to scientific education. Dr. Goldberg stresses in his classes the importance of original thought and creative thinking in science, which many students had not realized was part of the scientific process until taking his class. Dr. Goldberg accomplishes this by challenging students to think of the experimental basis of scientific knowledge rather than having students perform a dull memorization of facts. While this approach is more difficult and time consuming for both student and instructor, it is also more rewarding and creates a unique educational experience that often changes the course of a student's academic career.

One of the most important events of my academic career has been Dr. Goldberg's sharing with me his techniques for creating an exciting, vibrant educational atmosphere which has been so successful for him. While a teaching assistant for Dr. Goldberg I was responsible for conducting a seminar session each week where I would guide the students through Scientific American articles concerning historically important experiments. Dr. Goldberg always stressed to focus on the big picture when it came to teaching, to concentrate on the elegance of the experimental design rather than the minutiae of the system. One such article I presented was the original Scientific American on molecular cloning written by Stanley Cohen in the mid-1970s. Part of the brilliance of this article was Cohen's synthesis of the cloning method from various, seemingly disparate practices of the time, showing true creative ingenuity. Instead of teaching my students the simple requirements one must have for cloning, such as restriction enzymes, plasmids etc., I asked them to go back to the 1970's and talk about (using their knowledge from the article) what was known about each of these fields and how *they* could put all of them together to create a novel, revolutionary idea. This approach succeeded because it introduced my students to the creative aspects of science, which is lost when only factual scientific knowledge is presented.

In addition to my experience of teaching science in the classroom I have also been privileged with the opportunity to teach undergraduates in the laboratory. After the first quarter lecture class several students were accepted to begin working in our lab. This experience, while different from the previous quarters seminars, was no less rewarding. I thoroughly enjoy helping students on a one on one basis and I was able to teach them many of the laboratory techniques I have learned during my time in the lab. The laboratory experience allowed students to gain a greater appreciation for the arduous, time consuming work that science requires. While the hours were long and the work difficult, the students were able to experience the joy of having experiments work and discovering things no one had ever seen before. Indeed many students, who had remained skeptical about laboratory work, found the excitement of obtaining results so infectious that they are now considering careers in science. One of my proudest accomplishments with the laboratory work was the sense of community that was fostered

during the quarter. I came to know the students very well and shared in their trials as their experiments failed and their exuberance when they worked.

The lessons I have learned from Dr. Goldberg have been invaluable and I am truly in his debt. Dr. Goldberg has taught me that anything one does should be done with one hundred percent dedication and commitment, and this is the approach he has shown me to take with education. While some professors spend more time on research than teaching, Dr. Goldberg does not compromise on either, and in fact uses each to enhance the other. This creates a unique experience for those around him, which I feel very fortunate to have participated in. From my experiences teaching with Dr. Goldberg I now wish to continue teaching in the future and I am seriously considering an academic career.

Sincerely

Michael Ferry