



**Dr. Martin Rodbell, Nobel Laureate in Medicine, 1994**

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To: Dr. Leon Lederman

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Fermilab

Dear Leon: I finally found the time to read your very interesting proposals concerning high school teaching of science and the problems this society has in revealing science to all students. I find this to be one of the most serious defects in our teaching. I agree with you that the order of teaching the scientific disciplines must be restructured. In my high school years in the '30s my class of 23 students (the best and brightest in Baltimore) at the Baltimore City College (read High School) gave only one course in science (chemistry) and that by a teacher who hadn't any idea of the new concepts in chemistry. Physics and Biology were not taught; our major courses were in language and mathematics (including differential and integral calculus). When I graduated I was admitted to Johns Hopkins at the second year since I had taken sufficient courses at City to qualify for this "promotion". To my chagrin the chemistry course required a more sophisticated level of understanding than I had experienced. The same was true of physics. The result, I switched to French literature as a major. "Fortunately" I was drafted into the Navy and served in the South Pacific during the war, thus sparing me any immediate decision as to vocation. It wasn't until I returned and took courses in Biology from some wonderful professors at Hopkins (Bentley Glass for one) that my interest in science (which was always there since early childhood) as a life profession took shape. Only after graduation, taking an extra year for studying advanced physical chemistry and related courses, did I understand that I was capable of being a scientist. I was nearly 25 years old!

The point of all this is that it is important that young people who have a scientific bent receive early the necessary underpinnings if for no other reason than to test their abilities and resolve to be a scientist (relatively few will actually become professional scientists).

Finally, I should state that I have never taught in a University setting except for one year when I was a post-doc with Herbert Carter in the Biochemistry department at U of Illinois in Champaign-Urbana. I wasn't a good teacher in my estimation and went on to NIH because I decided that research is my forte. Now, after retirement (as emeritus) I have been invited back to Johns Hopkins to serve as a teacher of science to both undergraduate and graduate students. I am somewhat apprehensive but I feel strongly that I owe my alma mater something in return for the extraordinary stimulation given to me.

I believe your program is extraordinary valuable. If there is some way that I could be of service, please include me. From above it is clear that my life and its consequences might give some lessons to youngsters in their formative years of schooling.

Have a Healthy and Successful New Year! Perhaps you remember that my wife's maiden name is Ledermann (2 n's). Perhaps no relation but she is very happy when she sees you on those rare but delightful occasions.....Fond regards...

Marty Rodbell