

Department of Energy Office of Science Washington, DC 20585

Office of the Director

October 21, 2005

Fermi National Accelerator Laboratory P.O. Box 500 Batavia, Illinois 60510-0500

Dear Colleagues and Friends,

It is my great honor, on behalf of the Department of Energy, to congratulate Fermilab on the tenth anniversary of the discovery of the top quark. Fermilab is one of the Office of Science's most treasured and scientifically productive institutions, and the country and the world have been inspired by the exciting and pioneering research at this accelerator laboratory. At Fermilab, the energy, excitement and dedication of the scientists, the students, the engineers, the technicians, indeed of everyone, is as wonderful as it is contagious. We live in a scientific world. Our futures and our quality of life depend on it, and you play an important part of that future.

You are here to celebrate the achievements that this kind of spirit can deliver. Ten years ago, through the hard work and dedication of the whole laboratory, together with equally hard work and dedication from university and laboratory collaborators from around the world, the list of quarks and leptons was (we believe) completed, through the experimental observation of the top quark. It's good to remember that this means that three of these twelve quarks and leptons were discovered at Fermilab: every time we look at the wall charts listing the known particles, we all get a strong sense of pride.

It is also an important reminder of what can be achieved when we work together. The top quark did not come quickly or easily. The accelerator first ran seriously in 1988, but it took much more data and much more understanding of the detectors before it became clear what was being seen. That's something to keep in mind at the Large Hadron Collider. Secondly, even when you find what you were looking for, Nature has a way of throwing up a few surprises. After the bottom quark had been found, most people in the field believed that a top quark also had to exist. But very few expected it to be as massive as it is, and we are still trying to understand what this huge mass is telling us.

I am sure that this is not the last time Nature will surprise us. I don't know what MiniBooNE or Run II or MINOS will find, but we are counting on such surprises in high energy physics to come at Fermilab. Keep up the spirit that led to the top quark discovery and it will. Good luck to you all. You have our support.

Sincerely,

Raymond L. Orbach

