



# William Quintana

GRFP Recipient: 1983

*Undergraduate Institution:*  
B.S. 1983, University of Puerto Rico, Rio Piedras

*Graduate Institution:*  
Ph.D. 1988, University of Pennsylvania

*Graduate Field of Study:*  
Chemistry

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*Current Position:*  
Professor and Department Head,  
Chemistry and Biochemistry  
Department, New Mexico State  
University

## RESEARCH INTERESTS //

William Quintana has focused his research on the synthesis and characterization of molecular structures based on carboranes (polyhedral structures incorporating carbon and boron). These compounds will be potentially useful for boron neutron capture therapy, an alternative to radiation therapy for certain types of cancer and the creation of better drugs for therapeutic use in cancer treatment. Quintana has authored a laboratory manual for general chemistry, and also wrote the student solutions manual for the textbook *Chemistry: Principles and Applications, 3rd Edition*, by Reger, Goode and Ball.

## BROADER IMPACTS OF MY WORK ON SOCIETY //

The work started in my research laboratory has shown the possibility of rational synthesis of carborane compounds containing biologically relevant molecules. This is an area of chemistry that has shown promise in recent years and has been adopted by research laboratories who are continuing this important work. I am also very proud of my role as a Chemical Educator, which has afforded me the opportunity to impact the lives of thousands of students that have taken courses in General Chemistry and Inorganic Chemistry. As a Hispanic, I also serve as a role model to the many Hispanic students that have taken courses in chemistry at New Mexico State University, leading by example, that advancement in the area of chemistry is possible through hard work, dedication, and strong ethical beliefs.

### A PERSONAL ANECDOTE OF THE BENEFITS FROM GRF PROGRAM //

Without the support of the Graduate Research Fellowship Program, I sincerely believe that I would not have been admitted into any graduate school in the United States. The National Science Foundation provided me with an opportunity that otherwise might not have been open to me; a fact I did not understand until much later in my career. As a result of being a GRF, I received a first-rate education at the University of Pennsylvania and I am certain that having established my academic pedigree at this institution of higher learning allowed me to receive a postdoctoral fellowship at Ohio State University. Without NSF's support at such a critical stage, I'm certain I would not have risen to the position that I currently occupy in the Department of Chemistry and Biochemistry at New Mexico State University.

### A FOND MEMORY FROM MY EXPERIENCE AS A FELLOW //

For the first time in my life I was able to interact with people from different backgrounds other than my own. I established strong friendships with individuals from all over the world, which continue to this day. The camaraderie, similar interests and the notion that the work being done in the research laboratory of Dr. Larry G. Sneddon at the University of Pennsylvania, was relevant, very important, and would advance knowledge in boron hydride chemistry is the fondest memory that I have of being an NSF Graduate Fellow. None of this would have been possible without the financial support of this program and I remain extremely grateful to the National Science Foundation for providing me with this fellowship.

### AWARDS/ HONORS //

- Elected Outstanding Senior Faculty by the Hispanic Faculty/Staff Caucus of New Mexico State University (2011)

### POSITION PROFILE //

