

**Carlos Luna**  
**Alliance/Merck *Ciencia* Scholar Class of 2013**  
**Studying civil engineering at Texas A&M University**  
**Interned at the University of Texas Pan American Transportation Center for**  
**Railway Safety**

Carlos moved to Texas from Mexico when he was 10 years old. One of his teachers was a short, round woman who yelled a lot. Everyone was terrified of her, he said. One day she told Carlos that she was moving him from the ESL class to the regular reading class.

His first assignment in the new class was only half-a-page but Carlos had to translate every word, including the questions. After a week of feeling completely lost, Carlos asked to be moved back to the ESL class, but she refused. "Just because you don't think you can do it doesn't mean you can't do it," she said.

So he stayed put, and something wild happened. After a month of translating stories word for word with a dictionary, Carlos felt like he was learning. That experience changed Carlos' life. If you're put into a hard situation, it's because it's going to help you grow, he said. "Sometimes you just need confidence. That's what she gave me."

Carlos never tried to take the easy route again. As an Alliance/Merck *Ciencia* Scholar and with the support of the Alliance, Carlos spent last summer interning at the University of Texas Pan-American Transportation Center for Railway Safety where he conducted train-bearing research. Among other projects, Carlos was involved in developing the impact mechanism for the single railroad-bearing tester. He also examined the effects of vapor grown carbon nanofibers on steering pads. The goal of his research was to explore many of the critical elements involved in ensuring the safe and efficient travel of train cars carrying heavy loads.

Through the internship made possible by the Alliance, Carlos was able to apply the concepts he learned in his classes in a real-world environment.

Carlos hopes to become a civil engineer and one day own his own business. One perk of being his own boss will be that he can choose his own projects. Carlos wants to not only help people in the developing world build new facilities, schools and stadiums, but also to teach them how to maintain these structures. With his valuable internship experience, Carlos is one step closer to achieving his vision.