

Acknowledgements

*When I was ten years old, I recall sitting in my father's office at the University of Oklahoma; I heard a student address my father as "Dr. Scherman." This was indeed strange as my father has always insisted on being called "Avi." **Doctor!?!** my dad's office didn't have a waiting room attached, full of sick people, but rather, only Psychology graduate students who loved to interrupt him in the middle of writing something on an old Macintosh computer.*

I guess there are two important things that came from that memory: first, it would be really neat to be called "Dr. Scherman" so that I could immediately insist on just being referred to as *Oren* again, and second, I was destined to be interrupted by graduate students while writing on a Macintosh computer!

In October 1999, I decided to *go west*, with the encouragement of Professors Dotsevi Sogah and Geoff Coates of Cornell University, and join the research group of Professor Robert H. Grubbs at Caltech to begin my quest for a PhD in Chemistry. After fifty-two rewarding months, I have accomplished this goal. It is difficult to express my immense gratitude to the many friends and family members and co-workers who not only helped and supported me throughout this challenging process, but made it extremely enjoyable as well. First and foremost, I am grateful to Professor Grubbs. The opportunity to work for Bob is what lured me to sunny California in the first place, and being part of his research group has been a wonderful experience. Bob has continually allowed me the space and freedom to pursue the chemistry that most interested me and has wisely advised me to "never talk myself out of doing a reaction!" His constant encouragement has helped me through the ups and downs of my research and he has taught me how to put things into perspective. The atmosphere

he creates for the group has helped me mature both as a chemist and as a person.

I would also like to thank the other members of my PhD committee for their support and encouragement: Professor Bill Goddard, Professor Brian Stoltz and Professor Dave Tirrell.

One of the earliest and strongest friendships I formed at Caltech were with my first-year roommate at 438 S. Catalina Avenue, # 103, Darren Beene, and with Chris Thomas. Darren and Chris have been great friends throughout my time at Caltech. Darren always offers a unique perspective, and I will miss our midnight conversations and more recent afternoon coffee breaks filled with friendly PAC-10 vs Big 12 banter and discussions over politics and current events, science, and life in general. Chris never ceases to impress me with his knowledge over a wide range of topics. He is an outstanding chemist and I wish him the best of luck with his new postdoc in San Diego.

The relationships I have formed with people in the Grubbs group have been instrumental to my success as a graduate student. When I first arrived, Chris Bielawski, John P. Morgan (JP), and Arnab Chatterjee helped me get off to a great start in the lab. I am grateful to Chris for teaching me how to use the glove box, the Schlenk lines and in general, how to be a successful chemist in the group. He is a creative polymer chemist and he encouraged me to be innovative and to show my creativity in my research. JP's approach to science is thorough and it was always refreshing to hear his well thought-out answers to my various questions. JP and I also both held strong opinions about politics and academia and I gained a lot of perspective from listening to his opinions. Arnab quickly became a wonderful friend and he always provided encouragement and advice during times of doubt in the course of my PhD. Arnab also introduced me to the wonders of Las Vegas and taught me how to play blackjack and craps, much to my wife's dismay. I have great memories of lazy days at sea and afternoons of Puerto Rican rum and fresh coconuts from a Caribbean cruise that Arnab, my wife, and I took together.

Several other graduate students were also instrumental in the successful completion of my PhD and I would like to thank all of the members of the Grubbs group

whose paths have crossed with mine during my time at Caltech. Diego Benitez, Tae Lim Choi (TLC), Dan Sanders, and I all started in the group at the same time. They have all been great friends and co-workers and I thank them for their input and suggestions during my PhD. Dan has also proven a great friend outside of the lab and I thank him for helping me climb 99% of the way up Half Dome in Yosemite National Park, pushing me to run a faster 5 K, and for midnight chats in the computer room. I have also had the honor and pleasure of carrying out several research projects with a wonderful co-worker and scientist, Isaac Rutenberg. Isaac has been a source of much needed skepticism when interpreting scientific data. He has always graciously provided excellent feedback on my countless drafts as I wrote papers or prepared presentations. And, he showed his acumen by quickly learning how to drive a manual car and simultaneously navigate through NYC traffic during one of my more robust drinking performances! Andy Hejl is responsible for my recent addiction to crossword puzzles and I wonder if I will ever again be able to enjoy morning coffee without them! I will always remember my road trip to Oklahoma with Andy and in particular the long ride back to LA on I-40 during which we passed the time performing out of tune duets to the songs on CD's 8–17.

A number of postdocs have also played an important role in my graduate career. Dr. Hyunjin Kim, my bench-mate for two years, shared his extensive knowledge of synthetic organic chemistry as I first started my chemistry research at Caltech. He taught me how to work efficiently and how to think about synthetic problems. From Dr. Andreas Kilbinger, a fantastic scientist and polymer chemist, I learned not only about chemistry but also about enjoying life and how to schedule a pub crawl. I enjoyed going with him to the Caltech pool for our daily swimming workouts so that I could make room for beers and yogurt on Wednesday evening....now I will need to go back to Barney's and get "Dr." added to my name plaque!

Dr. Jon Efskind is the first Norwegian I ever met and I immediately insulted him by calling him a Swede! I spent two years trying to convince him it was an honest mistake. He also kept me in shape with afternoon swimming workouts and occasional runs around the track. Jon and his wife, Dr. Camilla Haavik, are great friends and

during their tenure at Caltech we enjoyed many wonderful times together including trips to Las Vegas with front-row seats at a boxing match, drives down to San Diego, bar hopping, and great food in New Orleans. Jon was also crazy enough to take me up on my offer to drive to Oklahoma for Filet Mignon! I hope the steak was worth it after he risked deportation by the INS just outside of Whitesands, New Mexico!

Dr. Stuart Cantrill taught me, amongst other things, how to give a good presentation and write a respectable scientific paper. He is a very creative person and I always enjoyed talking with him about anything. I hope that one day we will find each other in a pub somewhere to watch the World Cup Finals! Dr. Christiane Marti has a wonderful sense of humor and an infectious smile, and she gave me many suggestions and encouragement over the last year of my research. I thank her for just being herself and introducing levity into my life every day. Dr. Sebastian Smidt helped me think about chemistry and offered many great suggestions during the writing of my proposals. I appreciate hearing his opinions about chemistry and life in general and I hope to share many more thoughts and ideas over an espresso in Europe. Dr. Brian Connell is an amazing synthetic organic chemist and he has helped me numerous times with his great suggestions. He is also a Mac-lover and I really appreciate the time and effort he has spent helping me keep the group computers and server up to par, and for constantly educating me about OS X! Thank you to Dr. Emmanuelle Despagnet-Ayoub for being a great bench-mate and desk-mate. We enjoyed discussing differences between the United States and Europe and I look forward to experiencing them first-hand. I had a great time interacting with Dr. Valeria Molinero on a computational project. I really enjoyed talking with her about life and why in general one should NOT trust a computer!

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Also, thank you Pumpkin...a cat with personality is the biggest understatement!!!
(his contribution →) lkjqwekljk93r

Lastly, I must thank Cora, my beautiful and loving wife, who is full of encouragement and always knows what to do and how to cheer me up! She is the bright beacon in my life and I cannot think where I would be right now without her. Thank you sweetie for being understanding of my late night or *early morning* returns from the lab, my really lousy ability to tell you when I'm ready to be picked up, and of my often-wandering mind during dinner.