

BIO: Dr. Alex Lichtsheidl

Dr. Alejandro (Alex) Lichtsheidl is an alumnus of COC and graduated back in 2003 with an associate's degree before transferring to UC Irvine, where he completed two bachelor degrees in Chemistry and Biochemistry & Molecular Biology in 2006. At that point he decided to further his studies in Chemistry by pursuing a doctoral degree from MIT, which he completed in 2012 under the guidance of Nobel (Igor) laureate Richard R. Schrock. In 2017 he accepted a post-doctoral appointment at Los Alamos National Laboratory, where he worked on synthetic approaches towards improvements on the synthesis of fuel for nuclear reactors. After 3 years at Los Alamos, Alex decided to come back to California to become a Chemistry faculty member and educator. He has been teaching at COC and various other colleges in Southern California over the past 4 years in the hopes of inspiring the younger generation to pursue careers in the chemical sciences.

BIO: Dr. Isaac Koh

I was born and raised in South Korea in the Far East. Korea has geopolitical specifications, having borders with China and Russia, and being in close proximity to Japan across a narrow sea to the island nation. Korea was divided into the North of the communism and the South of the capitalism on its independence from Japanese annexation in 1945. The devastating clash between the two ideologies and socioeconomic instabilities within the South and the North culminated by the breakout of the Korean War (1950~1953). The southern part of Korea rose from ashes at the aftermath of the Korean War (1950~1953) and went through its exponential economic growth from 1960s, dubbed as "the magic of the Han River". My upbringing in suburbs of Seoul, the capital of the country, has this cultural and socioeconomic background. The rapid and condensed economic growth caused broad and wide transitions from analog characteristics to digital technologies, in which I lived my daily life.

My major is located at the intertwined intersection of chemistry, chemical technology, biotechnology, and nanotechnology. My academic credentials include a bachelor's (1996) and a master's degree (1998) in Chemical Technology at the College of Engineering of Seoul National University in South Korea, a leading research university in East Asia. Yeast was a microbial system for my research interest in production of fuel ethanol. I also published articles in production of recombinant proteins in *Escherichia Coli.*, a popular bacterial system. I pursued a graduate study in the United States and received PhD in Chemical and Biomolecular Engineering at University of Maryland College Park (2005). My PhD research topic was the application of nanoparticles for biological purposes. I have a track record of academia, research in major institutions, and the commercial sector. I worked in a hospital-research setting for state of the art facilities in NMR-based diagnostics of diseases at Harvard Medical School (Jan. 2006~Feb. 2009). I contributed by translating my research results into commercial products as a scientist at a start-up company (T2Biosystems inc.; March 2009 ~ December 2010). College of the Canyons offered me a teaching position as an adjunct faculty in Chemistry in the Fall semester of 2014. Since then, I have expanded my teaching career from General Chemistry to Organic Chemistry.