



**American Chemical Society  
Orange County Section**

**College Awards Dinner Banquet**

**Thursday, April 26, 2012**

**Concordia University, Irvine  
Grimm Hall North, 3<sup>rd</sup> Floor Conference Center  
1530 Concordia West, Irvine, CA 92612**

Registration & Social	:	6:00 p.m.	Dinner	:	6:15 p.m.
Speaker Presentation	:	7:15 p.m.	Awards Program	:	8:00 p.m.

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**Fracking: the Good, the Bad and the Ugly**

**Dr. Michael Kleinman**

Department of Medicine, University of California, Irvine

**Abstract:** Hydraulic fracturing has helped to expand natural gas production in the United States, unlocking large natural gas supplies in shale and other unconventional formations across the country. As a result of hydraulic fracturing and advances in horizontal drilling technology, natural gas production in 2010 reached the highest level in decades. According to new estimates by the Energy Information Administration (EIA), the United States possesses natural gas resources sufficient to supply the United States for approximately 110 years.

As the use of hydraulic fracturing has grown, so have concerns about its environmental and public health impacts. One concern is that hydraulic fracturing fluids used to fracture rock formations contain numerous chemicals that could harm human health and the environment, especially if they enter drinking water supplies. The opposition of many oil and gas companies to public disclosure of the chemicals they use has compounded this concern. Regulators and the public should be better informed in order to effectively assess the potential impact these processes may have on the environment and public health.

**Biography:** Dr. Michael Kleinman is a Professor (Environmental Toxicology) in the Department of Medicine at UC Irvine and is the Co-Director of the Air Pollution Health Effects Laboratory. He has published 100+ articles on the toxicology of inhaled environmental contaminants, served on two NRC committees on protection of military forces from chemical and biological weapons and has been a member of the USEPA CASAC Carbon Monoxide, Ozone and PM panels. He is a member of the Board of Scientific Counselors for the Center for Disease Control and Preventions Agency for Toxic Substances and Disease Registry (ATSDR) and currently serves as the Chair of the CalEPA Air Quality Advisory Committee. He serves as the secretary of the Orange County Section of the ACS.

**Reservations:** Please make your dinner reservations and your payment before 12 noon on April 20, 2012, through the website [www.OCACS.org](http://www.OCACS.org) (select the "College Awards Dinner" link from the Calendar page). Cost: \$22 per person.

This year we shall be collecting payment through an online reservation process. Payment options are credit card, PayPal or a check payable to OCACS. (Mail check to OCACS, P.O. Box 211, Placentia, CA 92871, to be received by April 20, 2012). Note that all reservations and payments are final once they are submitted and we cannot accommodate any changes in reservations or refund your payment. Also, we cannot accept any payment at registration on the day of the event. Please print the completed online Registration Form showing the names of the guests and bring it to the registration desk on the day of College Dinner. Contact Dr. Allison Gotoh at [agotoh@cypresscollege.edu](mailto:agotoh@cypresscollege.edu) for more information.

**Menu:** Cheese Enchiladas, Carne Asada Tacos, Refried Beans, and Spanish Rice

**Directions:** From the 405 Freeway, take the Jeffrey-University exit, and then drive west toward UC Irvine. Turn left off University on to Ridgeline, then immediately right on to Concordia. Gate attendant will direct you to free parking in the Main Parking Lot.