

*The California Los Padres Section of the American Chemical Society*

***Spring Lunch Meeting***

*12 noon, Saturday, April 25, 2009*

*Westmont College, Founder's Dining Room*

*955 La Paz Road, Santa Barbara*

with

***Gianni Torraca***

*Dept. of Analytical Sciences*

*Amgen Inc., Thousand Oaks*

*Speaking on*

***Forensic Investigation of  
Biopharmaceutical Manufacturing Incidents.***

The cost for the event will be **\$15** per person, **\$7.50** for students.

**A Luncheon Buffet**, including sandwiches and salads will be served.

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Contaminants, such as microparticles, found in the manufacturing stream of biopharmaceuticals must be identified and the source determined in order to take corrective actions. Biopharmaceuticals differ significantly from conventional pharmaceuticals in the manufacturing and delivery. They are produced by molecular cloning and cell culture fermentation, purified by multiple HPLC runs, and formulated as injectables to bypass the digestive system. Each step in the process presents different contamination risks. Contaminant incidents can lead to production slow down, quarantine of material and even product loss. For final products delivered in liquid formulation any visible contamination is unacceptable. Our laboratory employs multiple micro-spectroscopic techniques to investigate and identify unknown materials that are involved in contaminant incidents. The techniques include, but are not limited to, optical microscopy, FTIR-microscopy, and scanning electron microscopy (SEM) with energy dispersive x-ray spectrometry (EDS). Several archetypical incident investigations will be presented to demonstrate the challenges and the diversity of the manufacturing incidents, as well as the capability and flexibility of the combination of micro-spectroscopic techniques to address specific challenges in the biopharmaceutical industry.

*Gianpiero "Gianni" Torraca* is currently a Sr. Scientist in the Amgen Forensic Analysis Group working on identification of extraneous matter and advantageous materials in the biopharmaceutical environment as well as surface characterization. He has worked at Amgen for 7 years and previously was at Schering Plough Research Institute for 10 years. Education includes MS Chemistry from Seton Hall University, BS Chemistry from William Paterson University and currently enrolled in an MBA program at California Lutheran University.

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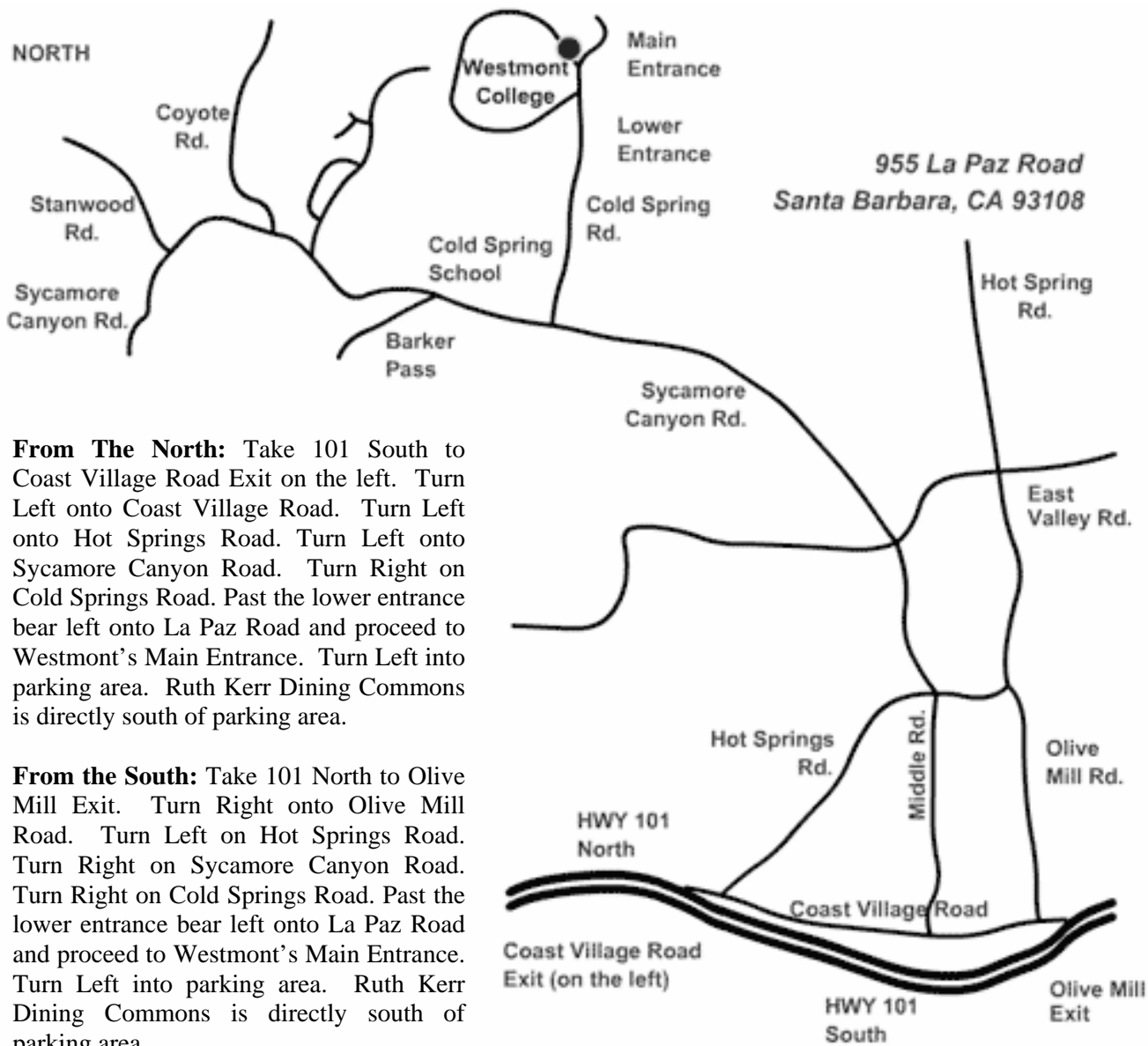
For more info go to the CALPACS website [www.chem.ucsb.edu/~calpacs](http://www.chem.ucsb.edu/~calpacs), email us at [calpacs@chem.ucsb.edu](mailto:calpacs@chem.ucsb.edu) or call James Pavlovich at 805-893-4252.

Please return your check with the form below by **Monday, April 20, 2009.**

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<b>Please RSVP with Payment to:</b>	Name(s) of Attendees	Student?
California Los Padres ACS	_____	_____
Dept. of Chemistry and Biochemistry	_____	_____
University of California	_____	_____
Santa Barbara, CA 93106-9510	_____	_____

Please provide contact email or phone # \_\_\_\_\_ Amount Enclosed: \_\_\_\_\_



**From The North:** Take 101 South to Coast Village Road Exit on the left. Turn Left onto Coast Village Road. Turn Left onto Hot Springs Road. Turn Left onto Sycamore Canyon Road. Turn Right on Cold Springs Road. Past the lower entrance bear left onto La Paz Road and proceed to Westmont's Main Entrance. Turn Left into parking area. Ruth Kerr Dining Commons is directly south of parking area.

**From the South:** Take 101 North to Olive Mill Exit. Turn Right onto Olive Mill Road. Turn Left on Hot Springs Road. Turn Right on Sycamore Canyon Road. Turn Right on Cold Springs Road. Past the lower entrance bear left onto La Paz Road and proceed to Westmont's Main Entrance. Turn Left into parking area. Ruth Kerr Dining Commons is directly south of parking area.

**CALP** California Los Padres Section  
of the **ACS** American Chemical Society  
Department of Chemistry and Biochemistry  
University of California  
Santa Barbara, CA 93106-9510

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