



Pipeline Press



Chemistry: A Pipeline to 21st Century Careers

APRIL 14, 2009

VOLUME 1, NUMBER 3

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Cool Chem Fact Did you Know?



Carbon A Girl's Best Friend

Most of the people know that one of the forms of the carbon (6) is diamond. Still in many cultures legends exist about women, who threw useless black stones into fire and to their surprise found, that this stones are burning and giving much more heat than wood. Connecting this with fact, that women were collecting wood for winter, it is easier to understand why carbon is so beloved by them.

Director's Message...



Dear Readers,

Spring has arrived and with it the anticipation of another academic year getting close to its end. Cañada College students are either looking for Summer internship opportunities or getting ready to transfer. High School Seniors are exploring career options. We are excited to announce our new Chemical Laboratory Technology

Program currently undergoing revision for approval by the State of California. A new course, Introduction to Chemical Laboratory Technology, will be offered in the Fall of 2009. This course is a survey of chemical laboratory industry job functions. An ideal career exploration course for students who are looking for information about a career in a chemistry laboratory setting. We are also excited to announce our Math, Science and Engineering Transfer Scholarship, (M-SETS) project made possible by a National Science Foundation – Division of Undergraduate Education Grant. This project has provided funds to award scholarships to current and incoming Cañada College students pursuing a career in a STEM field. For further details on the M-SETS project visit <http://www.canadacollege.edu/NSFscholar/>

During the past three months, we have been engaged in a variety of activities to encourage middle school and high school students to consider chemistry as a potential career choice. We continued to reach out and educate the public on the wonders of chemistry and its applications to everyday life. We provided professional development opportunities for High School teachers and College Faculty. Please refer to the "Current Events This Quarter" section for details.

Our new 60 MHZ NMR is a great addition to our instrumentation inventory. This Summer, we will start developing experiments to be incorporated across the chemistry curriculum.

We are working on a new project, starting ACS chemistry clubs at the local High Schools. Students benefit by creating strong ties with the local ACS section, having guest speakers, working on activities for Earth Day and National Chemistry Week. We are looking for High School Chemistry teachers to serve as chemistry club advisors. Please contact us if you want to get involved in this project.

Regards,
Jeanette Medina

Volunteer Industry Partners Needed

We are seeking to establish valuable industry alliances to assist us with the development of an Associate in Science in Chemical Laboratory Technology degree and a Chemistry Laboratory Technology Certificate, a key object of our grant. Volunteers will be asked to assist with: 1) identifying crucial curriculum topics and hands-on exercises to assure that graduates of these programs are well trained on industry relevant instrumentation and can perform a quality job, 2) expanding student access to career opportunities in chemistry and chemistry-related fields, 3) identifying potential internships and on-site training opportunities for students, 4) building long lasting and beneficial alliances among the local industry, four year colleges, high schools, government officials and Cañada College. For additional information contact Dr. Jeanette Medina, Project Director at (650)306-3255 or (650) 306-3304, by email at Canada.NSFGrant@smccd.edu.

Employers Wanted!

If you are an employer who has Chemical Laboratory Technicians on your staff we would like to hear from you!

Please contact us at:

(650) 306-3304

email us at:

Canada.NSFGrant@smccd.edu

Cañada College News

Summer Enrichment Programs at Cañada College for 2009

Three exciting new summer enrichment programs have been designed to help Cañada College students achieve their academic goals.

Math Jam: Improve Math placement results.

Engineering Institute: Explore the engineering profession.

L.E.A.P.: Improve academic preparedness in all subjects

For more information contact:
www.canadacollege.edu/bridge

Funding for the Cañada College Summer Enrichment Programs is provided by the US Dept of Education, Minority Science and Engineering Improvement Program (MSEIP) and the College Cost Reduction and Access Act (CCRAA) for Hispanic Serving Institutions (HSI) and the California Community College Basic Skills Initiative.







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Project News:

NSF Grant – Cañada College News

Annual Report – On January 28, 2009, Dr. Medina submitted the Annual Progress Report for our grant to the National Science Foundation. This 25 page report included a detailed account of all grant activities since our last annual report filing in January 2008. Dr. Sylvia James, our Program Director notified us on February 17, 2009, that our report had been approved for funding through April 30, 2010. A copy of the Executive Summaries from our annual report can be viewed on our web site at www.canadacollege.edu/nsfgrant.

New NMR Spectrometer – On February 17, 2009, a new state-of-the-art spectrometer was delivered to Cañada College. The purchase of this highly sophisticated spectrometer was made possible by funds provided by grants from College Cost Reduction and Access Act (CCRAA) for Hispanic-Serving Institutions (HSI) and our National Science Foundation – ATE Grant: Chemistry: A Pipeline to 21st Century Careers. The equipment included:

-  60MHz Eft FT-NMR Spectrometer including magnet, 60MHz Aii probe, Core 2 Duo PC and printer.
-  Carbon-13 Accessory including a two-channel Aii probe
-  Other Nuclei Accessory including broadband probe, RF interface and probe tuning hardware.
-  Optional Air Source including diaphragm air pump, air dryer, and all necessary plumbing.

On February 18, 2009, a representative from Anasazi Instruments spent several hours with Dr. Medina and other science faculty members training them how to operate the spectrometer.

Gene Connection: Chem Connection News

The Gas Laws Kit was successfully launched in February, 2009. Susan Tan, a chemistry teacher from South San Francisco High School, was the first to implement the lab kit in her classroom. She told Gene Connection:Chem Connection (GCC) Chemistry Coordinator that being able to use the kit was a big help to new teachers like her, and she would definitely want to use GCC Chemistry Kits again next year.

GCC, in collaboration with Cañada College, is planning a public outreach event for **NanoDays, March 28th – April 5th, 2009**. Staff and students from GCC and Cañada College will set up tables on Cañada College campus and at the San Mateo Public Library to invite the public to participate in various hands-on activities explaining what nanotechnology is and how it affects our everyday life. Materials for the outreach event are supplied by the Nanoscale Informal Science Education Network. For more information about NanoDays, visit www.nisenet.org.

GCC is inviting San Mateo County science teachers to participate in chemistry and environmental science curriculum development with GCC and summer internships with area companies and universities. For more information, please contact Melody Yang at melody@geneconnection.org.

Upcoming Events

March 25, 2009 - "A Major Affair" at Cañada College

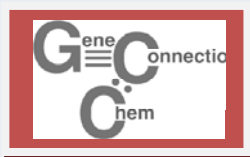
April 15, 2009 – Elemento Game Presentation at Cañada College

**May 2009 - Guest Speaker, Celia Hartnett- CEO, Forensic Analytical Sciences Inc.
at Cañada College**



For additional details about our grant go to the National Science Foundation Website at:

<http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0703188>



Gene Connection: Chem Connection

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We're on the Web!
www.canadacollege.edu/nsfgrant

Current Events This Quarter

February 19, 2009 – American Chemical Society Monthly Meeting

The American Chemical Society – Santa Clara Valley Section held its monthly dinner meeting at Cañada College. In addition to the monthly business the meeting featured a current High School student, Anshul Samar, who created and commercialized a chemistry card game named Elementeo. Anshul shared his story and taught everyone (including 15 Middle School and High School students) how to play the game and had an Elementeo tournament. The winners of the tournament took home their own copy of the game.



February 25, 2009 – Central Middle School GATE Workshop, Cañada College Campus

Approximately 25 Middle School GATE (Gifted and Talented Education) students visited Cañada College to participate in a Chemistry Workshop. The students became forensic scientists for the afternoon and using advanced chemical analysis, they were able to isolate the ink used in a “would be” ransom note, thus making it possible to identify the culprit. Feedback from students, teachers, and parents was very positive.



Thursday February 26th – The Open Career Fair, Capuchino High School, San Bruno, CA

Dr. Medina participated in an open career fair at Capuchino High School, San Bruno, CA. At this event seniors came to gather information pertaining to various fields of study and to research colleges and universities that best match their career goals. At our booth we were able to advertise all of the programs we have available in the sciences at Cañada College.

March 13, 2009 thru May 1, 2009 - Honors Chemistry Guest Lecture Series, Cañada College Campus

Professionals provided an overview of the steps necessary to translate experimental bench work into a profitable drug.

Included in the series:

Dr. Bonnie Charpentier, VP Regulatory Affairs, Metabolex, Inc.

Dr. Maria Wilson, Senior Biology Scientist, Metabolex, Inc.

Dr. Larry McGee, Chemistry Research Director, Amgen SF

Dr. Daniel Daraighi, Director Molecular Pharmacology, ChemoCentryx,



Gene Connection: Chem Connection - February 6, 2009 - Professional Development Day for San Mateo Unified High School District Science Department, Cañada College Campus

On February 6, 2009, Cañada College and GCC sponsored a Professional Development Day for San Mateo Unified High School District Science Department for 40 science teachers by providing campus facilities and lunch support. GCC Chemistry Outreach Coordinator conducted a professional development workshop on spectrophotometry and how it can be used to analyze the ink used to write a ransom note and solve a crime! Exit survey showed that the teachers were very satisfied with the quality of the professional development day and thought they learned valuable information and tools from their participation.

