

The PULSE

The Place for Undergraduate Learning and Scientific Exploration

The Department of Natural Sciences and Mathematics Newsletter

Gaining national attention: Dominican opens the National Ornamentals Research Site



TOP: Dr. Sibdas Ghosh introduces President Joseph Fink, who commented on the founding of NORS-DUC. **BOTTOM:** The nursery site where the NORS-DUC team will investigate the long-term effects of *P. ramorum*



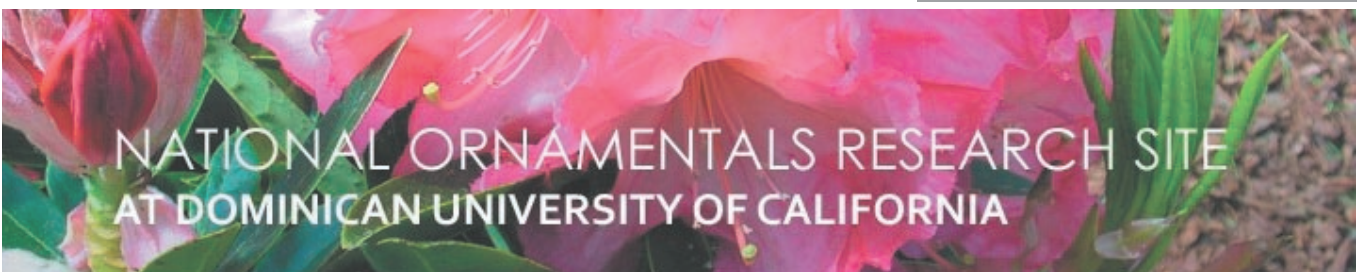
The National Ornamentals Research Site at Dominican University of California (NORS-DUC) is the first research site in the United States dedicated to the study of pests and diseases affecting the health of ornamental plants. The facility is funded by a grant from the 2008 Farm Bill, administered through the United States Department of Agriculture (USDA) Animal and Plant Health Inspection Service (APHIS) Plant Protection and Quarantine (PPQ) Center for Plant Health Science and Technology (CPHST).

NORS-DUC is a secure site modeled to reflect a nursery for the purpose of performing studies on nursery stock in a “real world” environment while ensuring high level safeguards to prevent the escape of pests that affect plant health. Scientists from the national and international research community will initially conduct studies focused on understanding and controlling the long-range spread of *Phytophthora ramorum* through infested nursery stock shipments.

P. ramorum was first identified in the U.S. in Marin County, California. Through monitoring, the California Department of Food and Agriculture (CDFA) has found that *P. ramorum*, the pathogen that causes Sudden Oak Death and Ramorum Blight, presents a clear and present danger to forests, the nursery industry and other agricultural commodities and plant life. More than 100 plants are known hosts of *P. ramorum*, and federal regulations restrict the movement of nursery stock from the West Coast.

In addition to supplying data to control the long range spread of *P. ramorum* and other pests affecting plant health, the NORS-DUC will provide validation of established Best Management Practices (BMPs) and development of new BMPs for nursery stock production; identify new treatment or remediation options for soil, water and plant materials to exclude, contain and eradicate *P. ramorum* and other pests affecting plant health; produce valuable epidemiological data on new and emerging species affecting ornamentals; and provide outreach through reporting the results of studies and by engaging students in research activities.

-Official Press Release



Dominican enters Kaiser Permanente Scholars/Mentors Program

Pre-med students paired with physicians in new endeavor at University

Official Press Release

A dozen Dominican University of California pre-med students were introduced to and paired with physicians from Kaiser Permanente on Tuesday, Sept. 29, at a “kick-off” reception dinner at Dominican for its association with Kaiser Permanente’s Scholars and Mentors Program.

The Kaiser Permanente program is designed to educate and excite students who will be encouraged to learn from and occasionally “shadow” their mentor/physician. Dominican students were presented with their own laboratory coats during the ceremony and will be able to observe emergency room procedures in four-hour shifts at Kaiser during their first semester.

“This mentorship program will provide a rare opportunity for undergraduate students to see firsthand the responsibility and role of a physician. The program is designed to advance interest in primary care and surgical medicine while encouraging each student to truly excel,” said Chris Grant, Senior Vice President of Kaiser Permanente. “The diversity of Dominican students closely aligns with the communities Kaiser Permanente serves and the University’s focus on character development and social responsibility fits well with our organizational values and mission ... Kaiser Permanente is excited to have the opportunity to motivate and mentor these bright students and future doctors.”

Grant helped initiate the program at Dominican through an introduction of Dr. Sibdas Ghosh, Associate Dean for Academic Development at the School of Health and Natural Science and Dr. David Shearn, MD, Director of Kaiser Permanente’s Physician Education and Development and Dr. Bruce Blumberg, MD Director of Graduate Medical Education and Kaiser Permanente’s Medical Residency Program.

Dr. Lori Selleck, APIC of Health Promotion at the Kaiser Permanente Medical Center, then was brought in to work with Dr. Ghosh to develop the program and identify physicians who would be interested in serving as mentors.

“The physicians I contacted jumped at the chance to serve as mentors, partly because they love what they do and the difference they make in patients lives and also



The students participating in the Kaiser Permanente Scholars/Mentors Program gather together for a group shot after a dinner in Creekside.

to share their experiences to help the students clarify if medicine is a right career choice for them,” Selleck said. “Of course, steering students this far upstream into primary care and general surgery, two areas that will be essential in health care reform, was also motivating.

Dominican identified, selected and nominated students to work with physicians from the Kaiser Permanente San Rafael Medical Center. The “shadowing” opportunity for Dominican’s pre-med students will help secure increased acceptance rate upon graduation. Each will meet with their mentor/physician at least once a month for one year.

The 12 Dominican students selected to participate in the first program of its kind at the University are Ariana Rodriguez of W. Rexburg, Id., Stephanie Huezco of Fallbrook, Mandy Omoregie of Elk Grove, Manuel Montalban of Susan City, Michelle Pogozelski of Citrus Heights, Christen Grant of San Diego, Jordan Kiefer O’Sullivan of Campbell, Rebeca Jimenez of Denver, Colo., Mark Gutierrez of Daly City, Gabriel Navarette of Union City, Jaennika Anig of Dinuba and Juan Chavez, a freshman who moved from Mexico to Healdsburg four years ago.

Kaiser Permanente physicians participating in the Scholar/Mentor program with Dominican are Mary Mockus, MD (Surgery), Joe Zimmerman, MD (Surgery), Mike Parnes, MD (Surgery), Jeff Cardneau, MD (Vascular Surgery), and Jeff Fox, MD (Gastroenterology), from the San Rafael Medical Center main campus in Terra Linda; Jessica Keane, MD (Family Practice/Adult Medicine), Ryan Lum, MD (Internal Medicine), and Ray Brow, MD (Internal Medicine) of Kaiser San Rafael Downtown and Lori Selleck, MD (Internal Medicine), Richard Christensen-Dalia, MD (Internal Medicine), John Delson, MD (Internal Medicine) and Bill Elliott, MD (Internal Medicine) of Kaiser Novato.

Fostering connections with the internship program

Biology majors are required to take at least 1 unit of an internship during their education at Dominican. Whether these internships take place just up the freeway in Vallejo or across the country on the East Coast, these internships help students form connections in the wider world not only for themselves, but for the university.

Amanda Anderson

Tim Camarella

Alexandria Casillas

Shelly Clermenco

Alli Hom

Krysten Kimbel

Tracy Krinard

Jacob Lang

Mark Lieuw

Teddy Morrow

Paris Organist

Victor Pham

Esmerelda Ponce

Mirel Rivera

Martin Tabije

Dr. Panagotacos Office

The Buck Institute for Age Research

Wild Care

Dominican University

Dick M. Hom, D.D.S, Oral and Maxillofacial Surgery

Northrop Grumman Corporation

Giant Steps Therapeutic Equestrian Center

Romberg Tiburon Center, SFSU

UCSF Medical Center

BioMarin Pharmaceutical Inc.

Dominican University

Twelve Bridges Pharmacy

Dominican University

University of MA Medical School

Sunset Family Dental Care

Where is the Class of 2009?

Every year Dominican sends a new batch of graduates out into the world, but what do these students end up doing? Here are responses from a couple of the recently-graduated Class of '09.

NAME: **David Ramirez**

WHAT ARE YOU DOING NOW?

“I am a 8th Grade Physical Science teacher at Alliance Academy Middle School, in East Oakland. I am also enrolled in a Master’s Program at Alliant University to receive a Master of Education.”

“I am part of Teach For America ‘09 corp. I taught this summer at Hamilton High School teaching Biology (Genetics Component) to 10-12th graders.”

Currently, I am teaching Turbo Kick at Alliance Academy and also at Dominican! Dominican Turbo Kick classes are every Sunday at 2:30 PM in Conlan!

NAME: **Takarah Barnes**

WHAT ARE YOU DOING NOW?

“Currently I am still taking classes at Dominican to finish classes for my major. I am also starting a business with my best friend bartending for private parties and events.”

“I am planning on taking pre-requisites in the spring for the Accelerated Nursing program where I can earn a BSN in one year.”

“My advice: make the most out of the time you have here, the real world hits you when you graduate!”

International field biology class going Down Under in summer 2010

In May 2010, the International Field Biology class (BIO 3505) will travel to Australia for nearly two weeks. During that time, students will have the opportunity to visit some of Australia's most breathtaking sights and immerse themselves in the local color. Among the experiences the students will have are:

- Visiting the Great Barrier Reef and the Cathedral Fig Tree
- Boomerang throwing
- Presentations of Aboriginal culture
- Feeding kangaroos and wallabies

The two main regions the course will explore are the Sydney and Cairns regions.

CAIRNS

The Cairns Region, with its unique environment, is renowned nationally and internationally as a premier tourism destination. The Region attracts more than 2 million domestic and international visitors each year. It is the only place in the World where two World Heritage Areas meet - the Great Barrier Reef and the Wet Tropics of Far North Queensland.

SYDNEY

Sydney is the most populous city of Australia and is built around Sydney Harbor, leading to its 'nickname, "the Harbour City". It is most noted for the Sydney Opera House, Harbor Bridge, and beaches such as Bondi. With 240 days of warm sunshine and multiple fun activities to choose from, many view Sydney as Australia's favorite city. The city itself is surrounded by national parks (with majestic mountain ranges & the World Heritage Rainforests of the Blue Mountains), contains many bays (such as the endless white sandy beaches of Port Stephens), and rivers and inlets (making it a delightful wine growing area such as the Hunter Wine Valley). There are also outback koala and animal farms, and fruit picking orchards. Between the museums, shops, dining, harbour cruises, botanic gardens, beaches, historic sights, and ecodelightful surroundings, Sydney is endlessly discoverable.

SYDNEY AND CAIRNS
REGION
MAY 17-30, 2010

Total Cost (projected): \$3831.10

Deposit due: \$300 on Dec. 15, 2009

Remainder Due: February 15, 2010

1-3 UNITS

Dominican takes part in Marin Math Circle

The Marin Math Circle brings together students who are interested in exploring new mathematical topics and challenging problems. Although math circles have existed in Europe for decades, and in other Bay Area cities for years, the Marin Math Circle is brand new, having started on September 16, 2009.

The purpose of the Marin Math Circle is to bring together students to enjoy logical and mathematical problem solving. The Marin Math Circle aims to:

Introduce students to the wonders of beautiful mathematical theories, presented by mathematicians with a passion for teaching

Provide students a place to have fun solving problems together with their peers

Prepare students for math contests

Encourage students to undertake future careers linked with mathematics, whether as mathematicians, educators, economists, biologists, or business entrepreneurs