



## **SJSU College of Science Third Annual Student Research Day**

**Many SJSU students work with College of Science faculty on original scientific research projects. The Student Research Day is a public display of some of the wide variety of research projects from all Departments in the College. The student researchers and faculty will be present to answer questions.**

**Friday, May 4, 2007**

**Duncan Hall (ground level)  
10:00am to Noon Poster Session I  
Noon to 2pm Poster Session II**

**In addition, tours of specific laboratories will be available.  
See Lab Tour schedule on Page 8.**

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# Session 1: 10am to noon

## DEPARTMENT OF BIOLOGICAL SCIENCES

### **1. Identifying Source Populations of Burrowing Shrimp (*Neoaeo californiensis*) for Population Management Plans.**

Kenji Kozuka, Michael Doan, Veronica Chaidez

Faculty: Leslee Parr (SJSU), Anthony F. D'Andrea (Oregon State), Brett R. Dumbauld (USDA), Theodore H. Dewitt (USEPA)

### **2. Genetic Characterization of Dungeness Crab (*Cancer magister*)**

Thalia E. Ohene-Nyako, Amy Litton, Michael Doan, Ginny Eckert

Faculty: Leslee Parr

### **3. Temporal Change of TM7 Bacterial Phylotypes in the Human Oral Flora.**

Fernando Velasquez, Christina A. Penn, Carol L. Chaffee

Faculty: Cleber Ouverney

### **4. Is There a Trade-off Between Drought Avoidance and Drought Tolerance?**

Amanda Shores

Faculty: Susan Lambrecht

### **5. The role of Secondary Structure in Localization and Anchorage of *H. o-T i* mRNA.**

Mehrin Farooq, Roberto Lleras, Hoan V. Tran, Stephanie A. Mandal

Faculty: Julio G. Soto

### **6. Protein Models of rMojastin Mutants as Predictors of Apoptosis Induction.**

Brandon Gaytan, Victoria Tran, Stephanie A. White, Natalie Chavez

Faculty: Julio G. Soto

## DEPARTMENT OF CHEMISTRY

### **7. Electrostatic Limits to Organomeraptan Submonolayer Formation.**

Arthur Cheng

Faculty: Yong Nam (Paul) Pak (KNUE), Shaowei Chen (UCSC), Roger Terrill (SJSU)

### **8. Chiral Recognition of Amino Acids by Circularly Polarized Luminescence Spectroscopy.**

Jamie Lunkley, Nicole M. Kosareff

Faculty: Gilles Muller

### **9. Capillary LC and Capillary Electrochromatography Using Hydride-based Stationary Phases.**

Dipti Sukul

Faculty: Joe Pesek, [Maria Matyska-Pesek](#)



# Session 1: 10am to noon

## DEPARTMENT OF METEOROLOGY

### **19. Temperature Variations as Revealed by Climate Model Simulation in the Upper Troposphere and Lower Stratosphere.**

Sium Tesfai, John Noble

Faculty: Eugene Cordero

## **Session 2: Noon to 2pm**

**DEPARTMENT OF BIOLOGICAL SCIENCES**

**26. Genetic Characterization of Dungeness Crab Recruiting into Glacier Bay, Alaska**

## Session 2: Noon to 2pm

### **34. Si-H Bond Energy in Triethoxysilane.**

Bridget Chen

Faculty: Patrick E. Fleming

### **35. pKa Calculations for Weak Acids.**

Serena Delmundo

Faculty: Patrick E. Fleming

### **36. Modeling of Polymer Dynamics in Ultra-Thin Films: The Dihedral Angle Dependence of NMR Chemical Shielding.**

Daniel T. Nieport

Faculty: John W. Logan

### **37. Donor Substituted Verdazyl Free Radicals: Molecules With a Bistable Electronic Structure?**

Dallas Chambers

Faculty: David J.R. Brook

### **38. Self-**

## **Session 2: Noon to 2pm**

### **DEPARTMENT OF GEOLOGY**

**43. Structures of the Central Part of the Skagit Gneiss Complex, North Cascades, Washington.**

Zach I. Michels (SJSU) and N. McLean (MIT)

Faculty: Robert Miller

**44. Structural Geology of the Skagit Gneiss Complex (SGC), North Cascades, Washington.**

Erin Shea, Zach I. Michels