

2006 STUDENT PROJECT SHOWCASE WINNERS

Graduate Biological Science Division

FIRST PLACE

Entry Number 9 GL

DIVERENT ROLES FOR PAX3 AND PAX7 IN THE DEVELOPING CHICKEN EMBRYO

By: Rachel Kadzik, Lisa Galli, and Tiffany Barnes

Cell and Molecular Biology

Faculty Advisor: Dr. Laura W. Burrus

SECOND PLACE

Entry Number 25 GL

LATITUDINAL VARIATION IN TRANSCRIPTOME PROFILES FOLLOWING HEAT AND COLD STRESS IN THE PORCELAIN CRAB, *PETROLISTHES CINCTIPES*

By: Elizabeth Moore

Marine Biology

Faculty Advisor: Dr. Jonathon Stillman

THIRD PLACE

Entry Number 29 GL

LIGAND BINDING INTERACTIONS MODULATING THE SUBSTRATE SPECIFICITY OF DIAMINE OXIDASE

By: Creobelle Guzman and David Elgart

Biochemistry

Faculty Advisor: Dr. George T. Gassner

FOURTH PLACE

Entry Number 12 GL

MECHANISM OF ACTION OF THE XANTHOMONAS EFFECTOR EARLY CHLOROSIS FACTOR

By: Dante Placido, Dr. Christina Morales, Dr. Jyothi Rajagopal, Chris Lowe,

Sandhya Bohini, and Peggy Lau

Cell and Molecular Biology

Faculty Advisor: Dr. Maureen Whalen

FIFTH PLACE

Entry Number 23 GL

COMPUTER SIMULATION OF YOUNG FISH & SHRIMP MIGRATION INTO SAN FRANCISCO ESTUARY

By: Renny Talianchich

Marine Biology

Faculty Advisor: Dr. Wim Kimmerer

Graduate Physical Science Division

FIRST PLACE

Entry Number 37 GP

STRUCTURAL QUERYING IN MOLECULAR DATABASES

By: Emmanuel R. Yera and Elinor Velasquez

Computer Science

Faculty Advisor: Dr. Rahul Singh

SECOND PLACE

Entry Number 39 GP

MULTIPLE-PERSPECTIVE INTERACTIVE WEB SEARCH

By: Ya-Wen Hsu and Naureen Moon

Computer Science

Faculty Advisor: Dr. Rahul Singh

THIRD PLACE

Entry Number 57 GP

THE MORPHOLOGICAL EFFECT OF VARIABLE FLOW ON A MEANDERING CHANNEL MODEL

By: Glen Leverich

Geology

Faculty Advisor: Dr. Leonard Sklar

FOURTH PLACE

Entry Number 49 GP

PARTS, IMAGE, AND SKETCH-BASED MODELING METHOD FOR DOMAIN EXPERTS

By: Tracie Hong and Jun Murakawa

Computer Science

Faculty Advisor: Dr. Ilmi Yoon

FIFTH PLACE

Entry Number 61 GP

THE COLORING INVARIANT OF KNOTS AND TANGLES

By: Candice Price

Mathematics

Faculty Advisor: Dr. Mariel Vazquez

Undergraduate Biological Science Division

FIRST PLACE

Entry Number 86 UL

THE MAPK SIGNALING CASCADE IN SKELETAL MYOGENIC DEVELOPMENT IN CHICKEN EMBRYOS

By: Natasha Chandiramani, Jared Greenberg, Seung Jong Lee, Patricia Powell, and Dr. Wilfred Denetclaw

Cell and Molecular Biology

Faculty Advisor: Dr. Wilfred Denetclaw

SECOND PLACE

Entry Number 88 UL

2-D DIGE ANALYSIS OF *YERSINIA PESTIS* STRAIN VARIABILITY IN MOUSE LUNG TISSUE

By: Rachele Bermingham

Physiology and Behavioral Biology

Faculty Advisor: Dr. Christopher Moffatt and Dr. Sandra L. McCutchen-Maloney (Lawrence Livermore National Laboratory)

THIRD PLACE

Entry Number 101 UL

CAN HYDRODYNAMICS PREDICT THE DIFFUSION PROPERTIES OF AMINO ACIDS?

By: Jared Thompson

Chemistry

Faculty Advisor: Dr. Sergio Aragon

FOURTH PLACE

Entry Number 75 UL

FRIZZLED-10 IS REQUIRED FOR THE EXPANSION OF THE DORSAL NEURAL TUBE DURING CHICK DEVELOPMENT

By: Joseph Ramahi

Cell and Molecular Biology

Faculty Advisor: Dr. Laura W. Burrus

FIFTH PLACE

Entry Number 80 UL

YOPJ FAMILY OF BACTERIAL PATHOGEN EFFECTORS; CELL AND MOLECULAR BIOLOGICAL ANALYSIS OF FUNCTION OF HOMOLOGUES IN HETEROLOGOUS HOST-PATHOGEN INTERACTIONS.

By: Ageliki Tzovolos

Cell and Molecular Biology

Faculty Advisor: Dr. Maureen Whalen

Undergraduate Physical Science Division

FIRST PLACE

Entry Number 137 UP

ELASTOMER ENERGY BUFFER TO REPLACE A FRICTION CLUTCH

By: Thomas P. Alldrege, Prisa Chanthavong, and Eric L. Bura

Mechanical Engineering

Faculty Advisor: Dr. Ed Cheng

SECOND PLACES

Entry Number 111 UP

AIM FOR ER (AUTONOMOUS IMMEDIATE MONITORING FOR EMERGENCY RESOURCE)

By: Atsedo Ayalew, Terrence Gilfillian, Doan Ho, and Carolina Silva

Civil Engineering

Faculty Advisor: Dr. Elahe Enssani

Entry Number 125 UP

THE TRACTION ELEVATOR AND CONTROL TECHNIQUES

By: Justin Hoffman and Mike F. Reinhard

Electrical Engineering

Faculty Advisor: Dr. Thomas Holton

FOURTH PLACE

Entry Number 146 UP

IDENTIFYING CHROMOSOME CLUSTERS IN HUMAN FIBROBLAST NUCLEI USING SCHIP

By: Nausheen Mirza

Mathematics & Computer Science

Faculty Advisor: Dr. Javier Arsuaga (Mathematics)

FFIFTH PLACE

Entry Number 143 UP

UNRAVELING THE UNKNOTTING OF TYPE II TOPOISOMERASES: EXAMINING RANDOM STATE CHANGES OF KNOTS

By: Janella Slaga

Applied Mathematics

Faculty Advisor: Dr. Mariel Vazquez