

April 26, 2006

**UNDERGRADUATE
Research & Creative
Achievement Day**



Africana Studies

Student: Kara Barnes
Mentor: Christel Temple
UC 310
1:45 -- 2:00

*“Qualitative Implications of Heritage DNA Testing:
africanancestry.com”*

American Studies

Student: Maddy Fickes
Mentor: Edward Orser
UC 312
2:30 -- 2:45

“Protesting Prodigies or Apathetic Academics?”

Ancient Studies

Student: Clare Ryan
Mentor: Carolyn Koehler
UC 312
2:15 -- 2:30

*“Propaganda and Character: Flavian Sculpture in the
Roman Empire”*

Biological Sciences

Student: Anthony Allen
Mentor: Janice Zengel
AM Poster Session
UC Ballroom
9:30 – 11:30

*“Selecting for Troleandomycin Resistant Mutants in
Deinococcus Radiodurans”*

Student: Lorraine Beraho
Mentor: Taifa Hibbert
PM Poster Session
UC Ballroom
1:00 – 3:00

*“The Utility of a Cytosensor for Measuring Glucose
Oxidation in Myotubes”*

Student: LaToia Bryant
Mentor: Janice Zengel
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Characterizing L4 and L22 Mutations in E.coli Strains
Resistant to Oleandomycin Triacetate”*

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Student: Melanie Chavez
Mentor: John McLenithan
AM Poster Session
UC Ballroom
9:30 – 11:30

*“Lactoferrin-Dependant Activation of MAP Kinase Pathways
in Human Adipose Tissue and Intestinal Epithelial Cells”*

Student: Koriand'r Conyers
Mentor: Stephen Miller
AM Poster Session
UC Ballroom
9:30 – 11:30

“Analysis of GFP-GlsA Fusions in Live Volvox Embryos”

Student: Foyin Fasanmi
Mentor: Rachel Brewster
AM Poster Session
UC Ballroom
9:30 – 11:30

*“The Role of N-Cadherin and the Planar Cell Polarity (PCP)
Pathway in Posterior Axis Morphogenesis”*

Student: Adrian Feijoo
Mentor: Anne Hamburger
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Heregulin-Mediated Breast Cancer Cell Growth Is
Maintained Despite Overexpression of the Ebp1
Transcriptional Repressor”*

Student: Albert Forero
Mentor: Suzanne Rosenberg
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Tumor Cells can be Genetically Modified to Activate a
Tumor-Specific Immune Response: Upregulation of MHC II
and Downregulation of MHC II-Associated Invariant Chain
in a Mouse Tumor”*

Student: Marcus Gillis
Mentor: Phyllis Robinson
AM Poster Session
UC Ballroom
9:30 – 11:30

*“An Exploration of Melanopsin's Function Through Site-
Directed Mutagenesis”*

Student: Yara Haddad
Mentor: John Kloetzel
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Reassessing the Phylogeny of Euplotes Ciliates Using
Ribosomal Gene Sequences”*

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Student: Uzoma Iheagwara
Mentor: Suzanne Ostrand-Rosenberg
PM Poster Session
UC Ballroom
1:00 – 3:00

“Myeloid Suppressor Cells Inhibit Activated T Lymphocytes”

Chemical Engineering

Student: Cameron Bardliving
Mentor: Leah Tolosa
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Long-Lived, Long-Wavelength Luminophores for
Immunosensing Applications”*

Student: Anton Geisz Jr.
Mentor: Theresa Good
UC 312
9:15 -- 9:30

“Development of an Organophosphate Neurotoxin Sensor”

Student: Thomas Hsu
Mentor: Leah Tolosa
AM Poster Session
UC Ballroom
9:30 – 11:30

*“Calculation of Dye-labeled Protein Structure by Biological
Computational Modeling for Fluorescent Biosensor Design”*

Student: Mustapha Jamal
Mentor: Charles Eggleton
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Effects of Non-Linear Membrane Elasticity on Capsule
Deformation Under Extensional Flow”*

Student: Debora Lin
Mentor: Leah Tolosa
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Fluorescence Detection of Glucose/Glutamine Based on
Glucose/Glutamine Binding Protein Immobilized on Dextran
Modified Glass Capillary”*

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Student: Lauren Smalls-Mantey
Mentor: Leah Tolosa
PM Poster Session
UC Ballroom
1:00 – 3:00

“FRET-based Glucose Monitoring for Bioprocessing”

Chemistry and Biochemistry

Student: Nerg AchiriMofor
Mentor: Michael Summers
PM Poster Session
UC Ballroom
1:00 – 3:00

“Studying the Protein-Protein Interactions Involved in HIV-1 Assembly”

Student: Anthony Agyapong
Mentor: Renty Franklin
PM Poster Session
UC Ballroom
Oral Presentation
UC 312
9:30 -- 9:45

“Effect of Zinc on Ros Production In Prostate Carcinoma DU145 Cells”

Student: Rahel Birru
Mentor: Rachel Brewster
AM Poster Session
UC Ballroom
9:30 – 11:30

“Characterization of Neural Tube Defects in the bpb Mutant Embryos”

Student: Stephanie Buckley
Mentor: Stephen Miller
PM Poster Session
UC Ballroom
1:00 – 3:00

“Characterization of rlsD, a Paralog of a Master Cell-fate Determination Gene in the Green Alga Volvox carteri”

Student: Joseph Castellano
Mentor: Phyllis Robinson
AM Poster Session
UC Ballroom
9:30 – 11:30

“Investigating the Role of the Chloride Binding Site (H181) in the Activation of Green Human Cone Opsin by Site-Directed Mutagenesis”

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Student: Luis Cocka
Mentor: Katherine Seley-Radtke
PM Poster Session
UC Ballroom

*“Design and Synthesis of Isoadenosine Analogues as
Potential Inhibitors of S-Adenosyl-L-homocysteine
Hydrolase”*

Student: Margaret Dabek
Mentor: Ramachandra Hosmane
UC 312
1:45 -- 2:00

“Artificial Blood Based on Cell-Free Hemoglobin”

Student: Amanda De Four
Mentor: Michael Summers
AM Poster Session
UC Ballroom
9:30 – 11:30

*“Structural Determination of the FeLV psi-site RNA
Packaging Signal Bound to the Nucleocapsid Protein”*

Student: Tebebeyesus Defaru
Mentor: Bradley Arnold
PM Poster Session
UC Ballroom
1:00 – 3:00

“A General Synthetic Route to Cyclobutadiene Derivatives”

Student: Ayanna Flegler
Mentor: Abdu Azad
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Differential Gene Expression in Cultured Rodent Malaria
Parasite”*

Student: Amber Gaither
Mentor: Rachel Brewster
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Analysis of E-cadherin Misexpression in the Developing
Neural Ectoderm”*

Student: Melat Garedeew
Mentor: Ashiwel Undie
PM Poster Session
UC Ballroom
1:00 – 3:00

“Xenobiotic Effects on Microtubule Morphology”

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Student: Frank Gooden
Mentor: Paul Smith
PM Poster Session
UC Ballroom
1:00 – 3:00

“The Role of Metal Binding in Topoisomerase Inhibition by UK-1 and Analogs”

Student: Paul Hoover
Mentor: Joel Liebman
AM Poster Session
UC Ballroom
9:30 – 11:30

“Trends in the Entropies of Diatomic Gallium and Indium Compounds”

Student: Andrew Kohlway
Mentor: Daniele Fabris
PM Poster Session
UC Ballroom
1:00 – 3:00

“Structural elucidation of HIV-1 Packaging Signal”

Student: Matthew Loftus
Mentor: Lisa Kelly
UC 312
9:45 -- 10:00

“Laser-Stimulated Raman Spectroscopy as a Method for Remote Atmospheric Sensing Technology”

Student: Candace Mainor
Mentor: Jodi Flaws
AM Poster Session
UC Ballroom
9:30 – 11:30

“The Aryl Hydrocarbon Receptor (AhR) May Alter Cytochrome P450 Enzyme Levels in the Mouse Ovary”

Student: Donnetta McFadden
Mentor: Jia Bei Wang
AM Poster Session
UC Ballroom
9:30 – 11:30

“Determination of PKCI Localizations in Mouse Central Nervous System by Immunohistochemistry Techniques”

Student: Nguyen Nguyen
Mentor: Michael Summers
PM Poster Session
UC Ballroom
1:00 – 3:00

“Identification of the Protein-Protein Interaction Between Gamma-subunit of Cellular Adaptor Protein-3 and HIV-1 Matrix Protein”

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Student: Khadijatou Njimoluh
Mentor: Michael Summers
PM Poster Session
UC Ballroom
1:00 – 3:00

“Drug Interactions with The N-terminal Domain of HIV-1 Capsid”

Student: Stephanie Núñez
Mentor: Anandarup Gupta
UC 312
2:00 -- 2:15

“Characterization of the Focal Adhesion-associated Protein Leupaxin in Prostate Cancer Cells”

Student: Frances Onyimba
Mentor: Margaret McCarthy
AM Poster Session
UC Ballroom
9:30 – 11:30

“Estradiol Activates Phosphatases in the Developing Hypothalamus”

Student: Sang Park
Mentor: Colin Garvie
AM Poster Session
UC Ballroom
9:30 – 11:30

“Structural Study of Nuclear Factor Y (NF-Y) Complex”

Student: Irene Pastis
Mentor: Ramachandra Hosmane
PM Poster Session
UC Ballroom
1:00 – 3:00

“Synthesis of Ring Expanded Nucleoside Analogues for Inhibition of the Hepatitis B and C Viruses”

Student: Adjoa Smalls-Mantey
Mentor: Michael Summers
PM Poster Session
UC Ballroom
1:00 – 3:00

“Composition and Sequence-Dependent Binding of RNA to the Nucleocapsid Protein of Moloney Murine Leukemia Virus”

Computer Engineering

Student: Hasina Jamal
Mentor: Jordan Kostov
UC 312
1:30 -- 1:45

“Fluorescent O₂-sensors Prepared Using Silica Nanoparticles”

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Student: Vlad Seghete
Mentor: Curtis Menyuk
UC 310
11:30 -- 11:45

*“Solitons in Birefringent Optical Fibers: A Dynamical
Systems Perspective”*

Student: Andrew Wilson
Mentor: David Bourner
AM Poster Session
UC Ballroom
9:30 – 11:30

*“Development of an Effective, Inexpensive Autonomous
Ground Vehicle”*

Game Developer’s Club

Programming:

Eric Jordan
Andrew Hunt
Charles Bushong
James Lee
Craig Lewis

“Video Game Development: Scarred Steel”

Mercury Programming:

Josh Allen
Charles Lohr

Website Design:

Daniel Mirchandani

Art:

Robert Jones
Kiran Sudhakara
Adam Petrone
Marcus Lepage
Chris Conley
Patrick McNeely
Arthur Gould

Sound Effects:

Kenny Trimmer

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George Aninwene II

Mentor: Penny Rheingans
UC Ballroom
9:30 – 11:30 am
1:00 – 3:00 pm

Dance

Student: Amy Baumgarten
Mentor: Doug Hamby
Dance Studio
11:40 -- 12:00

“Begin By Looking Inward”

Student: Jenifer Dobbins
Mentor: Doug Hamby
Dance Studio
10:00 -- 10:20

*“By the Gate at Dawn: A Study and Reinterpretation of
Limon Dance Technique”*

Student: Elina Mavashev
Mentor: Doug Hamby
Dance Studio
10:40 -- 11:00

“White Mountain Summer Dance Festival: Tears of a Clone”

English

Student: Katherine Furgol
Mentor: Piotr Gwiazda
UC 312
10:30 -- 10:45

*“Dwelling on The Floor of Heaven:
An Analysis of John Tranter's Verse Novel”*

Student: Kirsten Ederer
Mentor: Gail Orgelfinger
UC 312
11:00 -- 11:15

“The Evolution of Enitharmon Through Pity”

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Student: Asynith Palmer
Mentor: Christoph Irmscher
UC 312
11:30 --11:45

“Faulkner's French Appeal: A Historically Contextualized Perspective”

Geography and Environmental Science

Student: Ramya Ambikapathi
Mentor: Christopher Swan
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Decay of Organic Matter in Eastern Deciduous Forests:
Impact of Invasive Tree Species”*

Student: Michael Dunbar
Mentor: Christopher Swan
AM Poster Session
UC Ballroom
9:30 – 11:30

*“Aquatic Insect Feeding on Speciose Leaf Litter is Altered by
Predation Pressure”*

Student: Corrie Maxwell
Mentor: Christopher Swan
PM Poster Session
UC Ballroom

*“Coupled Consumer and Resource Biodiversity Effects on
Ecosystem Functions”*

Student: Lie`Ann Van-Tull
Mentor: Christopher Swan
UC 310
1:30 – 1:45

*“Implications of Transgenic Corn Cultivation on the Ecology
of Streams”*

Student: Ryann Williams
Mentor: Christopher Swan
UC 310
2:00 -- 2:15

*“The Effect of Species Leaf Litter on Tri-trophic Interactions
in a Detritus-based Stream Ecosystem”*

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Geography

Student: Corrie Maxwell
Mentor: Christopher Swan
PM Poster Session
UC Ballroom

*“Coupled Consumer and Resource Biodiversity Effects on
Ecosystem Functions”*

History

Student: Shayla Donmoyer
Mentor: Amy Froide
UC 312
11:15 -- 11:30

“Women's Writing and the Querelle des Femmes”

Information Systems

Student: Sumita Das
Mentor: Wayne Lutters
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Improving Software Maintenance Through Better
Documentation”*

Student: Christine Medina
Robert Lyv
Mentor: Redding
UC 310
11:15 -- 11:30

*“Enhancing Literacy Promotion through a Web-Based
System”*

Interdisciplinary Studies

Student: Jacqueline Ann Little
Mentor: Jodi Kelber-Kaye
Dance Studio
11:00 -- 11:20
Student: Erin Pressman
Mentor: Dianna Thayer
UC 312
10:00 -- 10:15

“Women and Body Hair: An Intimate Relationship”

*“Intercultural Communication Through Theater: Bilingual
Performance”*

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Student: Wambui Wamae - Kamiru
Mentor: Leslie Morgan
UC 312
10:15 -- 10:30

“The Importance of Role Model Influence on Goal Achievement Among Kenyan Women”

Mathematics

Student: Michael Childers
Mentor: Kathleen Hoffman
UC 310
11:00 --11:15

“Direct Methods in Calculus of Variations: An Application To Rod Mechanics”

Student: Brian Krummel
Mentor: John Zweck
UC 310
2:30 -- 2:45

“The Analysis of Curvatures of Discrete Surfaces with Boundary”

Student: Sherika Sylvester
Mentor: Michael Summers
UC 310
2:45 -- 3:00

“Capsid and p12 Interactions during Maturation of Murine Leukemia Virus”

Student: Kushal Mehta
Mentor: Eric Perlman
PM Poster Session
UC Ballroom
1:00 – 3:00 p.m.

“The X-ray Emission from the HH212 Region”

Student: Hasina Jamal
Mentor: Jordan Kostov
UC 312
1:30 -- 1:45

“Fluorescent O₂-sensors Prepared Using Silica Nanoparticles”

Student: Vlad Seghete
Mentor: Curtis Menyuk
UC 310
11:30 -- 11:45

“Solitons in Birefringent Optical Fibers: A Dynamical Systems Perspective”

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Student: Andrew Wilson
Mentor: David Bourner
AM Poster Session
UC Ballroom
9:30 – 11:30

*“Development of an Effective, Inexpensive Autonomous
Ground Vehicle”*

Mechanical Engineering

Student: Brandon Johnson
Mentor: Tim Topoleski
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Tribological Measurements of Carbide-Coated CoCrMo for
the Improvement of Prosthetic Joints”*

Student: Aftin Ross
Mentor: Dwayne Arola
PM Poster Session
UC Ballroom
1:00 – 3:00

*“Dental Bur Effects on Damage in Dentin and the
Importance of Age”*

Student: Danielle Stephenson
Mentor: Liang Zhu
AM Poster Session
UC Ballroom
9:30 – 11:30

“Post-Ischemic Hypothermia in Traumatic Brain Injury”

Modern Languages and Linguistics

Student: Caitlin Wychgram
Mentor: Steven Young
UC 312
10:45 -- 11:00

“The Syntactic Particle i in Old Japanese”

Music

Student: Sarah Crowell
Mentor: Linda Dusman
UC 310
1:15 -- 1:30
Student: Christie Finn

“Woman Like Me”

“The Drama of German Lieder”

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Mentor: David Smith
UC 310
10:30 -- 10:45

Student: Jack Hamlett
Mentor: Joseph Morin
AM Poster Session
UC Ballroom
9:30 – 11:30

*“The Development of the Steel Guitar in Country and
Western Music”*

Student: Rachele Sills
Mentor: Airi Yoshioka
UC 310
10:15 -- 10:30

“Further Investigation of Violin Playing”

Student: Robert Zuzin
Mentor: Airi Yoshioka
UC 310
10:45 -- 11:00

“Aesthetic Music Education for Elementary School Students”

Philosophy

Student: Theresa Lopez
Mentor: Susan Dwyer
UC 310
9:30 -- 9:45

“On Our Duties to Animals”

Student: John Weller
Mentor: Richard Wilson
UC 310
9:15 -- 9:30

“Stratified Pluralism”

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Political Science

Student: Rosemarie Capozzi
Mentor: Jeffrey Davis
UC Ballroom, 1:00 – 3:00

“Religion as a Factor for Judicial Decision Making on the Supreme Court”

Student: Jeffrey Martin
Mentor: George LaNoue
UC Ballroom, 9:30 – 11:30

“Supreme Court Nomination Hearings: An Analysis of Justices' Responses to Controversial Questions”

Student: Elan Schnitzer
Mentor: Jeffrey Davis
UC 312, 2:45 -- 3:00

“Decriminalization and Legalization of Marijuana and Prostitution”

Psychology

Student: Mark Allshouse
Mentor: Lynanne McGuire
AM Poster Session
UC Ballroom
9:30 – 11:30

“Individual Differences in Endogenous Pain Control”

Student: Eric Gernat
Mentor: David Richman
PM Poster Session
UC Ballroom
1:00 – 3:00

“Effects of Social Stimuli on Laughing and Smiling in Young Children with Angelman Syndrome”

Student: Nishan Gugsu
Mentor: Carlo DiClemente
AM Poster Session
UC Ballroom
9:30 – 11:30

“Cocaine Exposure Causes Impairment in Conditioned Responding”

Student: Stefanie Kirk
Mentor: Stanley Feldstein
AM Poster Session
UC Ballroom
9:30 – 11:30

“Validation of a Revised DAS: A Measure of Romantic Relationships”

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Student: David Maron
Mentor: Robert Anderson
PM Poster Session
UC Ballroom
1:00 – 3:00

“Meditation as an Intervention for Pain”

Student: Brian Merry
Mentor: Lynanne McGuire
AM Poster Session
UC Ballroom
9:30 – 11:30

“The Impact of Anxiety and Race on Chronic Pain Treatment Outcomes”

Student: Albee Therese Ongsucu
Mentor: David Richman
AM Poster Session
UC Ballroom
9:30 – 11:30

“Pretend Play Differences Between Children with Down Syndrome and Autism”

Student: Lindsay Phebus
Mentor: Stanley Feldstein
AM Poster Session
UC Ballroom
9:30 – 11:30

“Depression and Reciprocity as Predictors of Dyadic Adjustment”

Student: Jessica Richards
Mentor: Lynanne McGuire
AM Poster Session
UC Ballroom
9:30 – 11:30

“The Effect of Stimulants on Alertness and Mood during Sleep Deprivation”

Student: Elena Spieker
Mentor: Zoe Warwick
AM Poster Session
UC Ballroom
9:30 – 11:30

“Solid and Sweet: The effect of orosensory properties of food on satiety in an animal model”

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Student: Jessica Wentling, Joseph
Keller, Cyrus Mistry, Monica
Jimeno

*“The Effects of Videogame Experience on Virtual Reality
Distraction”*

Mentor: Lynnda Dahlquist
PM Poster Session
UC Ballroom
1:00 – 3:00

Theatre

Student: Matthew Metzger
Mentor: Wendy Salkind
Dance Studio
11:20 --11:40

“New Approaches to Acting Technique”

Visual Arts

Student: Emily Hauver
Mentor: Preminda Jacob
The Commons, Mezzanine Gallery

“The Photography of Jaromir Stephany”

Emily Hunter
Mentor: Irene Chan
Fine Arts 404 C
10:00 am -- 10:00 pm
5:30 pm Opening Reception

“Dialogue Mapping”

Student: Amarilis Sarango
Mentor: Vin Grabill
Dance Studio
10:20 -- 10:40

“Reflection”

Student: Daniela Zangara
Mentor: Calla Thompson
Fine Arts
First Floor Hallway Gallery

*“Late Bloomers: Exploring the Potential for Age
Acceptance”*