

The University of Oklahoma
Honors College proudly presents:

*Undergraduate
Research Day*



Saturday,
April 03, 2004

Corridors A & B
Thurman White Forum Building

Participants are listed alphabetically within panels, but may choose the order of presentations among themselves

Session I, 8:30-10:00

**Room A2, Politics and Business
Chaired by Dr. Paul Chambers**

- Kyle Erwin, with Dr. Mitchell Smith, "Fundamental Ideals of the European Union"
Jean Lopez, with Dr. Suzette Grillo, "The Psychology of Building Country Status in Kosovo"
Lyndsey Ray, with Dr. Mitchell Smith, "How do we understand the tensions surrounding acceptance and regulation of genetically modified foods?"
Justin Reyes, with Dr. Terry Rugeley "The United Fruit Company of Guatemala"
Stephanie Clay, with Dr. Traci Carte, "Technology Use in Virtual Teams"

**Room A3, Film, Literature and Language Analysis
Chaired by Dr. Alan Vele**

- Nathan Corbett, with Dr. Joanna Rapf, "Loneliness Has Never Been a More Crowded Room"
Joshua Edwards, with Dr. Ron Schleifer, "The Silent Art: The Use of Metaphor in the Medical Profession"
Andrew LeGrand, with Dr. Catherine John, "Black Man: Lost, Castrated, or Revolutionary? An Analysis of Three Unique Literary Depictions of Black Male Characters"

**Room A4, Environmental Issues and Chemistry
Chaired by Dr. Robert Nairn**

- Shivani Arora, with Dr. Robert Houser, "CFCs, CFC-substitutes and their effects on global warming"
Sunny Castleberry, with Dr. Liz Butler, "The effect of PH on the Heterogeneous Photocatalytic Oxidation of Ammonia to Nitrate + Nitrite in Titanium Dioxide Aqueous Systems"
Katie Warlick, with Dr. Robert Houser, "Water Contamination of Tulsa's Water Supply with Poultry Waste"
Kimberly Yang, with Dr. Robert Houser, "Peptide Deformylase Active Site Modeling With Zinc N-(Pyridine-2-ylmethyl)-(methylthio)-acetamide complexes"

**Room A5, Engineering
Chaired by Dr. Robert C. Knox**

- Beth Brueggen, with Mr. Chris Ramseyer, "Effect of Concrete Shrinkage on Prestressing Strand"
Brent Chancellor, Roozbeh Kiamanesh, Amanda Luksetich, Joline Munoz, Katherine Nelson, Keara Phillips, DeLanna Robertson, Derick Thompson, and Jessica Whittle with Dr. Seamus Freyne, "Concrete Canoe Mix Design 2004"
Casey Dietrich, with Dr. Randall Kolar, "Assessment of ADCIRC's Wetting and Drying Algorithm"
Matthew Simon, with Dr. S. Gollahalli, "Characteristics of Flame Introduced into the Combustion Products of Upstream Burner to Simulate a Jet Afterburner"

**Room B1, Chemistry
Chaired by Dr. Rich Hamerla**

- Reeve T. Bull, with Dr. Ken Nicholas, "Advanced Synthesis of B-Unsaturated Amines with Nitro Compounds"
Chris Doan, with Dr. Kenneth Nicholas, "Synthesis of Catalytic Metalloantibodies"
Sage Ross, with Dr. Lloyd Bumm, "Electroluminescent Ligand Synthesis"

**Room B2, History
Chaired by Dr. Robert Griswold**

- Tyler Akagi, with Dr. Alan Atkinson, "The Poetry of TuFu as a Response to the An Lushan Rebellion"
Keegan Drake, with Dr. Steven Gillon, "The formation of student government at OU in the context of increased student activism and self-expression during the 1960-70's."
Audrey Freeman, with Dr. David Levy, "Oklahoma's Alfalfa Bill through the Eyes of the National Media"
Brooke McCorkle, with Dr. Yoshiko Fukushima, "A Separate Peace: Korea, Japan, and the 1965 Normalization Process"

**Room B3, Zoology I
Chaired by Dr. Randall Hewes**

- Veronica Hochla, with Dr. Han Wang, "Rhythmic expression of period I during zebrafish early development"
Elizabeth Makil, with Dr. David Durica, "Studies on Crustacean EcR Genes"
Matthew Tandy, with Dr. James Thompson, Jr., "Somatic Mutation and Developmental Stability in Drosophila"
Sergio Xavier Vasquez, with Dr. Han Wang, "Effects of *mindbomb (mib)* on expression of *cry2b* during zebrafish embryogenesis"
Gina Louise Yosten, with Dr. Ari Berkowitz, "Morphology and Physiology of Spinal Interneurons in the Adult Turtle"

**Room B4, Economics
Chaired by Dr. Cynthia Rogers**

- David Antosh, with Dr. Iver Wahl, "Is Asteroid Strike Prevention Worth the Costs? An Economic Assessment"
James Thomas Gordon, with Michele Tersine, "The Lacking Presence of Minority General Managers in the U.S. Hotel Industry"
Ronald Grant Jr., with Dr. R. C. Davis, "N.A.F.T.A.: Is it good for Something?"
John Aubrey Ice, with Dr. Michael Winston, "The effect of cultural and economic models from the U.S. upon the construction of French culture and national identity"

**Room B5, Computers
Chaired by Dr. S. Lakshmiarahan**

- Mary Brooks, with Dr. Krishnan Shankar, "Cryptography: An Application to Coin Flipping over the Telephone"
Justin Jones, with Dr. Mohammed Atiquzzaman, "Seamless Handover using Stream Control Transmission Protocol"
Blake McGuire, with Dr. Mark Yeary, "Finite Impulse Response Filter Design by Simulated Annealing"
Laura Lynn Pillow, with Dr. A. B. Schwarzkopf, "Computer Simulations-Systems Dynamics and Discrete Event Simulation"

**Room B6, Biochemistry and Microbiology
Chaired by Dr. Gordon Atkinson**

- Amy Carlson, with Dr. Michael Ashby, "Biological Reactive Sulfur Species: The Chemistry of Hypothiocyanite"
Tam Nguyen, with Dr. Richard Taylor, "Synthesis of Macrocyclic Compounds for Heavy Metal Ions"
Bradley Pillow, with Dr. David Nagle, "Pyrimidine Salvage Pathways in Halophilic Archaea"

Session II, 10:15-11:45

**Room A2, Chemical and Mechanical Engineering
Chaired by Dr. S. Gollahalli**

- Christopher Dalton, with Dr. F. C. Lai, "EHD-Enhanced Drying of Porous Glass Beads"
Jack Franklin, with Dr. James Shaffer, "Applying calculated stark shifts to manipulate molecules."
Mitch Hargis, with Dr. Brian Grady, "Analysis of Bryte, Newport, and 3501-6 Thermoset Resins Under Isothermal Curing Conditions"
Eli Kliewer, with Dr. Edgar O'Rear, "Modification of Polymer Wetting Properties for Micro Channel Flow"
Kien Nguyen, with Dr. Dimitrios Papavassiliou, "Investigation of the Effects of Flows on Chemical Reactions"

**Room A3, Psychology
Chaired by Dr. Nancy Mergler**

- Kendra Brack, with Dr. Bridget Murphy-Kelsey, "The Occurrence of Guilt in Middle Childhood"
Margaret O'Connell, with Dr. Bridget Murphy-Kelsey, "Gender Composition and Peer Conflict: A Study on Emotion Goals and Behavior"
Sydney Sevier, with Dr. Scott Gronlund, "Timing Identifications: Encoding Multiple Culprits"
Carly Yadon, with Dr. Lynn Devenport, "Ingestion of Mold by Chipmunks: Who benefits?"

**Room A4 Health Issues
Chaired by Dr. Penny Hopkins**

- Cameron Adkisson, with Dr. Barbara Safiejko-Mroccka, "The effect of bacterial products and hyperglycemic conditions on human gingival fibroblast motility in vitro"
Marion Garrett, with Dr. Barbara Safiejko-Mroccka, "The effects of sonicated bacterial extracts on cell migration and proliferation in hyperglycemic and normal conditions"
Charlotte Logan, with Dr. Gerard Elberg, "Somatostatin Receptor 1 and 2 Mediate Different Regulation of Insulin-Stimulated c-fos Promoter Activity Through Extracellular Signal Regulated Kinase Activation"
Sheleatha Taylor, with Renea King, "Healthcare disparities in the African American community"
Misty Woodard, with Dr. Mary Katherine Crabb, "Multi-Drug Resistant Tuberculosis and Prevention Programs in Oklahoma"

**Room A5, Education and Leadership
Chaired by Dr. Carolyn Morgan**

- Channa Barrett, with Dr. Gaetane Jean-Marie, "Teacher perceptions and its influence on urban education"
Miranda Bond, with Dr. Becky Barker, "Great Groups: Leaders of the Future"
Shanda Bontempi, with Dr. Elizabeth Willner, "PreService Teachers' Use of Children's Literature During Their Internships"
Talia Carroll, with Dr. Irene Karpiak, "Barriers and Numeric Disparities: The Dilemma of Recruiting and Retaining African American Males in Higher Education"

**Room B1, Literature and Language
Chaired by Dr. David Gross**

- Rachel Colle, with Dr. Karen Youmans, "Edith Maud Eaton's Leaves from a Mental Portfolio of an Eurasian and the development of her Sui Sin Far Identity"
Victoria May, with Dr. Karen Youmans, "Self-Discovery in the Midst of Community Upheaval: The Fiction of Cisneros, Alvarez and Santiago"
Laura Morgan, with Dr. Michael Winston, "A Comparative Study of Euripides's *Hippolytus*, Seneca's *Phaedra* and Racine's *Phèdre*."
Jonathan Tanner, with Dr. Dan Cottom, "Temporality and Translation and the Poetry of Francis Pouge"
Zoe Lynn Ziliak, with Dr. Joseph Sullivan, "The Rising Status of the Turkish-German Dialect Among German Youth"

**Room B2, Fine Arts
Chaired by Dr. Paula Conlon**

- Susan Adams-Johnson and Kyden Creekpau, with Dr. Roland Barrett, "A survey of existing African American-inspired art songs and the composition of a new song cycle based on African American poetry from Countee Cullen and Langston Hughes"
Carla Flores, with Dr. Jeremy Lindberg, "Entrapment" (formerly named "Deception")
Stephanie Huey, with Dr. Susan Caldwell, "Panofsky and Early Netherlandish Painting"
Celia Zambon, with Dr. Donna Cox, "A critiqued audition for Marilyn Horne in New York City"

**Room B3, Politics
Chaired by Dr. Ronald K. Gaddie**

- April Armstrong, with Dr. Allen Hertzke, "The American British Revolution"
Erin Candelaria, with Dr. Ron Peters, "The Political Influence in Art Throughout the Centuries"
Nathan Foell, with Dr. Allen Hertzke, "An examination of the work of John Rawls and its bearing on the proper relationship between religion and politics"
Justin LeBeau, with Dr. Glen Krutz, "Agency Influence on the Winnowing Process"
Akbar Siddiqui, with Dr. Allen Hertzke, "Muslim Organizations and the U.S. Government"

**Room B4, Zoology II
Chaired by Dr. Rosemary Knapp**

- Terry Grigg, with Dr. Regina Sullivan, "Assessing Human Infants' Responsiveness to Stimuli after Pain"
Catherine Jensen, with Dr. Regina Sullivan, "Cerebellar vermis activation in learned fear"
Mary Laughlin, with Dr. Regina Sullivan, "Pain-odor classical conditioning in human infants"
Abigail Marie Smith, with Dr. Don Wilson, "Changes in sensory discrimination during prenatal development"
Jason Thompson, with Dr. Don Wilson, "Brain Mechanisms of Sensory Habituation"

**Room B5, Zoology III
Chaired by Dr. James Thompson, Jr.**

- Jordan Brewster, with Dr. Randall Hewes, "Analysis of nerve cell development and regulation through temporal and spatial control of gene expression"
Bryce Jones, with Dr. Randall Hewes, "Mist1's localization in the adult mouse brain"
Kimberly Roark, with Dr. Randall Hewes, "Characterization of genes affecting neuropeptide signaling"
John Saunders, with Dr. Randall Hewes, "Mapping of neuropeptide release sites associated with ecdysis and wing expansion in *Drosophila Melanogaster*"
Jana Lynn Vidaurri, with Dr. Marvin Whiteley, "Studying Bacterial Pathogenesis Using Insect Models"

**Room B6, Geosciences and Engineering
Chaired by Dr. Frederick Carr**

- Sean Cody Arms, with Dr. Jerald Brotzge, "An Investigation of the Effect of Caves as Meso and Micro Scale Atmospheric Humidifiers"
James Coplin, with Dr. David Miller, "D.A.R.T. Board"
Kathryn Gardner, with Dr. Doug Elmore, "Petrology of New Stannern-Trend Eucrites and Eucrite Genesis"
Brandon Kyle McCalip, with Dr. David Miller, "Mars Core-Sampling Drill Investigation"
Justin Vandy, with Dr. David Miller, "Design of an Anthropomorphic Interface"

University of Oklahoma Honors College *UNDERGRADUATE RESEARCH DAY*

- Registration -

Participants and Session Chairs may pick up their registration packets at the registration table.
Please register at least 10 minutes prior to the beginning of your session.

ROOM	A2	A3	A4	A5	B1
Session 1 8:30 am - 10:00 am	Politics and Business <i>Chaired By</i> <i>Dr. Paul Chambers</i> <i>Lecturer</i> <i>Political Science</i>	Film, Literature and Language Analysis <i>Chaired By</i> <i>Dr. Alan Velie</i> <i>Professor</i> <i>English</i>	Environmental Issues & Chemistry <i>Chaired By</i> <i>Dr. Robert Nairn</i> <i>Associate Professor,</i> <i>CEES</i>	Engineering <i>Chaired By</i> <i>Dr. Robert C. Knox</i> <i>Academic Director</i> <i>CEES</i>	Chemistry <i>Chaired by</i> <i>Dr. Rich Hamerla</i> <i>Assistant Professor</i> <i>Honors College</i>
	B2	B3	B4	B5	B6
	History <i>Chaired By</i> <i>Dr. Robert Griswold</i> <i>Interim Dean</i> <i>Honors College</i>	Zoology I <i>Chaired By</i> <i>Dr. Randall Hewes</i> <i>Assistant Professor</i> <i>Zoology</i>	Economics <i>Chaired By</i> <i>Dr. Cynthia Rogers</i> <i>Associate Professor</i> <i>Economics</i>	Computers <i>Chaired By</i> <i>Dr. S. Lakshmivarahan</i> <i>Professor</i> <i>Computer Science</i>	Biochemistry and Microbiology <i>Chaired By</i> <i>Dr. Gordon Atkinson</i> <i>Professor Emeritus</i> <i>Chemistry</i>
ROOM	A2	A3	A4	A5	B1
Session 2 10:15 am - 11:45 am	Chemical and Mechanical Engineering <i>Chaired By</i> <i>Dr. S. Gollahalli</i> <i>Academic Director</i> <i>AME</i>	Psychology <i>Chaired By</i> <i>Dr. Nancy Mergler</i> <i>Sr. Vice President &</i> <i>Provost</i>	Health Issues <i>Chaired By</i> <i>Dr. Penny Hopkins</i> <i>Professor</i> <i>Zoology</i>	Education and Leadership <i>Chaired By</i> <i>Dr. Carolyn Morgan</i> <i>Associate Dean</i> <i>Honors College</i>	Literature and Language <i>Chaired By</i> <i>Dr. David Gross</i> <i>Associate Professor</i> <i>English</i>
	B2	B3	B4	B5	B6
	Fine Arts <i>Chaired By</i> <i>Dr. Paula Conlon</i> <i>Assistant Professor</i> <i>Music</i>	Politics <i>Chaired By</i> <i>Dr. Ronald K. Gaddie</i> <i>Professor</i> <i>Political Science</i>	Zoology II <i>Chaired By</i> <i>Dr. Rosemary Knapp</i> <i>Assistant Professor</i> <i>Zoology</i>	Zoology III <i>Chaired By</i> <i>Dr. James Thompson, Jr.</i> <i>Professor</i> <i>Zoology</i>	Geosciences and Engineering <i>Chaired By</i> <i>Dr. Frederick Carr</i> <i>Academic Director</i> <i>Meteorology</i>

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