University of Wisconsin - Stevens Point
College of Letters and Science

Undergraduate Research Symposium
Program

University Center,
UW-Stevens Point Campus

Saturday
April 29, 2000
♦ Oral Presentations ♦
See Program for Individual Room Locations
9:30 – 11:45 A.M.

♦ Poster Presentations ♦
Located in the La Follette Lounge
9:30 – 11:45 A.M.

♦ Lunch ♦
served in the Alumni Room at Noon

Introduction by Dean Justus Paul
Welcome by Vice Chancellor Bill Meyer

Pick up your lunch tickets at the Registration
Table, located in the La Follette Lounge
Maternal Employment and the Effects on Children
Dawn Roznowski and Chrissy Snowberry
Faculty Mentor: Dr. Janis Weber

A Closer Look at Pre-Marital Sex: Factors That Determine Who Is More Likely to Approve and Disapprove
Michelle Gerber
Faculty Mentor: Dr. Janis Weber

Attitudes toward Surrogate Motherhood
Kayla Tinker
Faculty Mentor: Dr. Janis Weber

Attitudes toward the Death Penalty
Tom Reif and Vassar Hibbitts
Faculty Mentor: Dr. Janis Weber

Determinants of Attitudes toward Capital Punishment
Sarah Roberts
Faculty Mentor: Dr. Janis Weber

Euthanasia: Attitudes and Influential Factors
Bonnie Gahan
Faculty Mentor: Dr. Janis Weber

Parental Influence on the Incidence of Adolescent Premarital Sexual Activity
Jennifer Oelke
Faculty Mentor: Dr. Janis Weber

Contraception: Should Teens Require Parental Permission?
Nathan Moore
Faculty Mentor: Dr. Janis Weber

Intact Family or Divorce: Who Agrees Divorce is Better for Children in Troubled, Unhappy Situations
Christine Yonke
Faculty Mentor: Dr. Janis Weber

Heritage Room (126)
Moderator: Dr. Jianwei Wang

Department of Sociology

Department of Psychology

An Exploratory Study of Boundary Ambiguity and Divorce
Melissa Warren and Joanne Houtman
Faculty Mentor: Dr. Douglas Henderson

Department of Political Science

A Comparative View of the American Political-Economic Structure in Reference to the Asian and European Systems
Andrew Halverson, Pei Ling Jacinta Chew and Tsoon Ming Lai
Faculty Mentor: Dr. Jianwei Wang
Garland Room (205)
Moderator: Dr. Kevin Hefferan

Department of Geography/Geology

Landsat Thematic Mapper Analysis of the Mariscal Mountain Anticline, Big Bend, Texas
Mike Falkowski, Dean Johnson, Justin Conner and John Zuleger
Faculty Mentors: Dr. Kevin Hefferan, Dr. Neil Heywood,
Dr. Richard Walker and Dr. Michael Ritter

Department of Chemistry

Novel Aromatic Diamine Monomers for PMR Polyimides
Nate Wallock
Faculty Mentors: Dr. John Droske

Separation of Caffeine & Aspirin by Capillary Electrophoresis
Dan Wolcanski
Faculty Mentor: Dr. Laura Cole

Department of Biology

Characterization by Transmission Electron Microscopy of Several Bacteriophage Species Isolated from Sources in Central Wisconsin
Harold Norton
Faculty Mentor: Dr. Richard Crowther

Coinfection Rates of Pathogens Causing Babesiosis, Human Granulocytic Ehrlichiosis and Lyme Disease in Ixodes Scapularis from Areas in Wisconsin
James Henkgl
Faculty Mentor: Dr. Diane Caporale

Green Room (113)
Moderator: Dr. Richard Crowther

Department of Biology

Do Conifer Plantations Function as Population sinks for Breeding Cooper’s Hawks (Accipiter cooeri) in Wisconsin?
Sarah Sonsthagen
Faculty Mentor: Dr. Robert Rosenfield

Effects of Temperature on Nitrogen Waste Production by Brook Trout in a Controlled Environment
Christopher Huff
Faculty Mentor: Dr. Chris Harte

Home Range Size and Population Assessment of Urban and Rural Populations of the North America Wood Turtle (Clemmys Insulpta) in Central Wisconsin
Neal T. Halstead and William Zelenski
Faculty Mentor: Dr. Erik Wild

Species are not Ecological Constants: A Raptor Example
Laura Gissibl
Faculty Mentor: Dr. Robert Rosenfield
Red Room (115)
Moderator: Dr. Robert Rosenfield

Department of Biology

Variation in *Verticillium dahliae* Resistance in Potato Stems
Jessica Nelson
Faculty Mentor: Dr. Shelley Jansky

Metabolism and Ventilation during Cold Stress in a Small Bird
Derrick Same
Faculty Mentor: Dr. Sheldon Cooper

Evaluation of Foliage Resistance Expressed by Potatoes to Infection of Late Blight
Charles Hoff
Faculty Mentor: Dr. Terese Barta

Grafting Studies in Relation to *Verticillium dahliae* Resistance in Potato (*Solanum tuberosum*)
Sarah Ferguson
Faculty Mentor: Dr. Shelley Jansky

Does Heat Produced during Activity Contribute to Thermoregulation in the Black Capped Chickadee?
Sarah Sonsthagen and Jonathan Schiller
Faculty Mentor: Dr. Sheldon Cooper

Mitchell Room (207)
Moderator: Dr. Alice Keefe

Department of English

Like, Okay!
Darcy Lapp
Faculty Mentor: Dr. Mark Balhorn

Department of Philosophy

The Hebrew Bible: Explorations in Interpretation Panel
Faculty Mentor: Dr. Alice Keefe

The Sons of God, the Daughters of Men and the Nephilim: Complications in Interpretation
Ryan O'Leary

Judging Characters: Jephthah and his Daughter
Craig Butts

Do Not Kill: The Meaning behind the Fifth Commandment
Katherine Lawton

Cultural Identity and the Old Testament
Christopher Parker

The Silencing of Miriam
Angela Kind

Comparing Set and Cain: The Influence of Egyptian Culture on the Ancient Israelites
Roger Reichardt
Department of Psychology

Environmental Attitudes: A Functional Approach
Pamela Loose, Brad Griesbach, Alicia Bembenek,
Carrie Lukens and Jamie Hersant
Faculty Mentor: Dr. Donna Desforges

Group Cohesion and Collective Optimism
Kyle Sargent, Pamela Loose and Amy Schroeder
Faculty Mentor: Dr. Donna Desforges

Majority and Minority Perceptions on Intergroup Contact
Carrie Lukens, Brad Griesbach, Zach Secrist,
Jamie Hersant and Alicia Bembenek
Faculty Mentor: Dr. Donna Desforges

Response Components of Task Switching
Elizabeth Horswill and Natasha Rueth
Faculty Mentors: Dr. Padmanabhan Sudevan and Dr. Jack Holmes

Verbal Interactions between Men in Three Settings
Chad Keller
Faculty Mentor: Dr. Amy Gervasio

Department of Geography/Geology

Landsat Thematic Mapper Analysis of the Anti-Atlas Mountains, Morocco: A Linchpin Suture Zone in Neoproterozoic Gondwana Reconstructions
Michael J. Falkowski
Faculty Mentors: Dr. Kevin Hefferan, Richard Walker and Dr. Katie Algeo

Alternative Constructions of the History of the Chiricahua Apache of Oklahoma
Stacey L. Schulz
Faculty Mentor: Dr. Katie Algeo

Department of Biology

A Morphometric Analysis of Populations of Bufo americanus (American Toad) from the Door Peninsula and Adjacent Islands
Amy Pribbenow, Kristy Klicka and Bernadette Ball
Faculty Mentor: Dr. Erik Wild

A Survey of Parasites from Raptors
Andrew Lynch, Hank Reines and Sarah Gomoll
Faculty Mentor: Dr. Steve Taft

Acute and Chronic Toxicity of a Phthalate Pesticide leached from a Butyl Rubber Bladder
Theresa Saks and Elizabeth Kurth
Faculty Mentor: Dr. Robert Bell

Cellular Morphology, Antibiotic Resistance, and Methods of Purification in Cyanobacteria
Brian Schmitt
Faculty Mentor: Dr. Richard Crowther
Comparison of Growth Curves and Colony Morphology of *Anabaena* spp. Using Two Media Types  
*Josh Magnuson*  
_Faculty Mentor: Dr. Richard Crowther_

**Constructing a Laboratory Experience Dealing with Chronobiology and Gravitropism**  
*Amanda Noworatzky and Carmela Rios*  
_Faculty Mentor: Dr. Jane Johnson_

Daily Metabolic Nitrogenous Waste Production from Brook Trout fed two Different Diets  
*Joshua J. Eastman*  
_Faculty Mentor: Dr. Chris Hartleb_

**Designing a Student Lab Investigation of Motor Neurons Innervating the Superficial Flexor Muscle of the Common Crayfish**  
*Nicholas J. Doperalski*  
_Faculty Mentor: Dr. Sol Sepenson_

Determination of the Environmental Conditions and Culture Medium Necessary for the Optimal Growth of the Cyanobacteria *Anabaena* spp. and *Microcystis aeruginosa*  
*Harold Norton*  
_Faculty Mentor: Dr. Richard Crowther_

Determining the Measurement of Age and Growth of Fish using a Computer-Digitized Technique  
*Sarah E. Kaatz*  
_Faculty Mentor: Dr. Chris Hartleb_

Identification of a Fungal Dermatophyte Isolated from a Chronic Infection  
*Amy Brownrigg*  
_Faculty Mentor: Dr. Terese Barta_

Identification of Unknown Bacteria Isolated from Salad, and Enumeration Techniques for Cyanobacteria  
*Paul Berland*  
_Faculty Mentor: Dr. Richard Crowther_

Infection Rate of Lyme Disease Pathogen *Borrelia Burgorferi*, Among *Ixodes Scapularis* Ticks in Northwestern and Central Wisconsin  
*Jason Malone and Brianna Luedtke*  
_Faculty Mentor: Dr. Diane Caporale_

Methods for Cell Lysis of *Anabaena flos-aquae* and Subsequent Protein Analysis by SDS Polyacrylamide Gel Electrophoresis  
*Stephen D. George*  
_Faculty Mentor: Dr. Richard Crowther_

Microscopic Survey of Fossilized Pollen-Containing Structures of the North Dakota Paleocene, Sentinel Butte Formation  
*Tim Chambers, Michael Nowack*  
_Faculty Mentor: Dr. John Curtis_

Mineral Nutrition of Potato  
*Shana Dahl and Angelique Pelletier*  
_Faculty Mentor: Dr. Jane Johnson_

Molecular Phylogenetic Study of Chironomids (Insecta: Diptera) Using Mitochondrial 16S Ribosomal DNA  
*Kelly Stern*  
_Faculty Mentor: Dr. Diane Caporale_

Oxygen Consumption of Brook Trout: The Effects of Water Temperature and Fish Size  
*Matthew L. Rogge*  
_Faculty Mentor: Dr. Chris Hartleb*
Survey of Fossilized Marine Invertebrates in the Cretaceous Layer of the Bear Paw Formation in North Eastern Montana
Julie Larsen and Alicia Fitzpatrick
Faculty Mentor: Dr. John Curtis

The Effects of General Anesthesia on Temperature Control in Lab Rats
Michael K. Petri and Jonathan A. Schiller
Faculty Mentor: Dr. John Curtis

Anatomy of secretory cavities of Panax quinquefolia (Ginseng)
Seth Dahlke, Jason Hendricks and David Murray
Faculty Mentor: Dr. John Curtis

Anatomy of the Leaf Trichomes of Rosmarinus (Rosemary)
Yoko Okubo and Heather Oxley
Faculty Mentor: Dr. John Curtis

Department of Chemistry

The Synthesis and Characterization of Novel Polyamides from Diaminotriphenylmethanes Containing 4-Trifluoromethyl and 4-Bromo Substituents
Josh Van Gompel and Clare Wysocki
Faculty Mentor: Dr. John Droske

The Study of an Iridium (III) Complex Reacting with 1,3-Dioxolane
Jason Jadin and Robin Tanke

Progress Toward the Development of a General Route for the Synthesis of Ring A Substituted Canthinone Indole Alkaloid Natural Products
Melissa Oberbeck, Craig Zifcsak, Melissa Fondell, Gretchen Gorte, John Stevens, Christopher Randlett and Kevin Czerwinski

Department of Physics/Astronomy

HPLC Analysis of Alfalfa Plant Phenolics in Relation to Insect Resistance
Bethany Buck and Jennifer Wolter
Faculty Mentor: Dr. Thomas Zamis

Aromatic Diamine Monomers for High Molecular Weight Linear Polyidies
Bridget Schmitz and Aaron Clausen
Faculty Mentor: Dr. John Droske

Separation of γ-crystallins
Amber Ganski
Faculty Mentor: Dr. Laura Cole

Parallel-Plate Ionization Chamber Spatial Resolution and Characteristic Response
Kyle York and Dr. Syed Ackber
Faculty Mentor: Dr. Jagdish Chander

Diode-Pumped Solid State Green Laser
Jason Bree
Faculty Mentor: Kameshwar Razdan

Nitrogen Laser Design and Construction
Corey Jaskolski and Christopher Randlett
Faculty Mentor: Dr. Gregory Taft

Solid State Ionic Conductivity of Silver Cadmium Iodide
John Faludi and Wendy Schreier
Faculty Mentor: Dr. Robert Beeken

Superconducting Tunnel Junctions
Josh Peterson
Faculty Mentor: Brad Hinaus