

Student Accomplishments for 2005 – 2006

On Campus: Biology Summer Research Program (BSRP) Summer 2005

Mackenzie Esch (Sophomore) Mentor: Dr. Howard Reinert
Largescale survey of the water quality and characteristics of potential habitats for the endangered queen snake, Regina septemvittata

Nicole Gerber (Junior) Mentor: Dr. Donald Lovett
Mechanisms involved in modulating the osmoregulatory response in crabs.

Tom Hare (Junior) Mentor: Dr. Jim Bricker
Genetic health status of the corn snake, Elaphe gutatta, an endangered species in New Jersey

Elizabeth Janeczko (Junior) Mentor: Dr. Jim Bricker
Genetic health status of the corn snake, Elaphe gutatta, an endangered species in New Jersey

Tim Jarvela (Senior) Mentor: Dr. Amanda Norvell
Development of a genetic screen in Drosophila melanogaster for identifying new genes that are required for the production of correctly formed eggs

Jordan Kaplan (Senior) Mentor: Dr. Amanda Norvell
Development of a genetic screen in Drosophila melanogaster for identifying new genes which are required for the production of correctly formed eggs

Anjali Mone (Sophomore) Mentor: Dr. Marcia O'Connell
Genes subject to translational control during zebrafish embryogenesis

Purak Parikh (Sophomore) Mentor: Dr. Donald Lovett
Mechanisms involved in modulating the osmoregulatory response in crabs.

John Pennisi (Senior) Mentors: Drs. Janet Morrison and Dennis Shevlin
The plant parasitic smut fungus Sporisorium ellisii and its interaction with an important local plant species, Andropogon virginicus

Mike Pesa (Senior) Mentor: Dr. Charles Peterson
Metabolic activity of several species of turtle eggs in relation to their physiology and ecology

Ashley Petit (Junior) Mentor: Dr. Howard Reinert
Largescale survey of the water quality and characteristics of potential habitats for the endangered queen snake, Regina septemvittata

Kelley Pfeiffer (Senior) Mentor: Dr. Marcia O'Connell
Genes subject to translational control during zebrafish embryogenesis

Amit Shah (Sophomore) Mentor: Dr. Jeff Erickson
The neurotransmitter serotonin and the development of breathing behavior in mice

Asha Shah (Sophomore) Mentor: Dr. Charles Peterson
Metabolic activity of several species of turtle eggs in relation to their physiology and ecology

Ray Shupak (Junior) Mentors: Drs. Janet Morrison and Dennis Shevlin
The plant parasitic smut fungus Sporisorium ellisii and its interaction with an important local plant species, Andropogon virginicus

Doug Smith (Junior) Mentor: Dr. Jeff Erickson
The neurotransmitter serotonin and the development of breathing behavior in mice

Kevin Tierney (Junior) Mentor: Dr. Donald Lovett
Mechanisms involved in modulating the osmoregulatory response in crabs.

On-Campus: Independent Study Projects (academic year)

Jonathan Abraham Mentor: Dr. James Bricker
Isolation and Amplification of microsatellite loci in whitetailed deer.

Michelle Carll, Mentor: Dr. James Bricker
Isolation and Analysis of Microsatellite Loci in E. guttata.

Hasan. Danish Mentor: Dr. James Bricker
Isolation and Amplification of microsatellite loci in whitetailed deer.

Patrick Discepola Mentor: Dr. Amanda Norvell
Dorsal Ventral Patterning of Drosophila melanogaster: Genetic interaction between Hrb 27c and Orb 343

Perian Doko Mentor: Dr. Curt Elderkin
Amplification of the ITS1 Gene in Cumberlandia monodenta.

Mackenzie Esch Mentor: Dr. Howard Reinert
Diet Analysis Population of Timber Rattlesnakes (Crotalus horridus).

Nichole Gerber Mentor: Dr. Donald Lovett
Na⁺, K⁺ ATP-ase activity in gills of the green crab Carcinus maenas may be modulated by membrane trafficking during salinity change.

Julie Gilbert Mentor: Dr. Marcia O'Connell
Early development in zebrafish (Danio rerio): The search for a homologue of Drosophila localization gene squid.

Thomas Hare Mentor: Dr. James Bricker
Isolation and Analysis of Microsatellite Loci in E. guttata.

K. Horner Mentors: Drs. Janet Morrison and Dennis Shevlin
Smut fungus disease in a natural population of the grass Andropogon virginicus (broom sedge)

Elizabeth Janeczko Mentor: Dr. James Bricker
Isolation and analysis of microsatellite loci in E. guttata.

Mariana Jojic Mentors: Drs. Janet Morrison and Dennis Shevlin
Smut fungus disease in a natural population of the grass Andropogon virginicus (broom sedge)

Jordan Kaplan Mentor: Dr. Amanda Norvell
Effects of colchicine treatment on Squid.

Arjun Majithia Mentor: Dr. Amanda Norvell
Exploration of Klar Functions in Drosophila Oogenesis.

Kerri Mathes

Molecular analysis of Squid mutants.

Mentor: Dr. Amanda Norvell

Eugene Muchnik

Population Genetics of mosquitofish, Gambusia affinis, from a contaminated lake.

Mentor: Dr. Amanda Norvell

Michael Orapallo

Isolation and Amplification of microsatellite loci in whitetailed deer.

Mentor: Dr. James Bricker

Purak Parikh

Na⁺, K⁺ ATPase activity in gills of the green crab Carcinus maenas may be modulated by membrane trafficking during salinity change.

Mentor: Dr. Donald Lovett

Michael Pesa

Effects of constant and fluctuating incubation temperatures on the metabolic cost of development in painted turtles.

Mentor: Dr. Charles Peterson

Kelly Pfeiffer

Early development in zebrafish (Danio rerio): The search for a homologue of Drosophila localization gene squid.

Mentor: Dr. Marcia O'Connell

Haroon R. Rahimi

Elevated environmental temperature and breathing behavior in Pet1 knockout mice: a plethysmographic study.

Mentor: Dr. Jeffrey Erickson

Anup Shah

The effects of prenatal nicotine administration on the respiratory patterns of newborn serotonin-deficient Pet1 mutant mice.

Mentor: Dr. Jeffrey Erickson

Ray Shupak

Smut fungus disease in a natural population of the grass Andropogon virginicus (broom sedge)

Mentors: Drs. Janet Morrison and Dennis Shevlin

Douglas Smith

Serotonin cell counts in the Caudal Raphe of newborn Pet1 knockout mice.

Mentor: Dr. Jeffrey Erickson

Kevin Tierney

Na⁺, K⁺ ATPase activity in gills of the green crab Carcinus maenas may be modulated by membrane trafficking during salinity change.

Mentor: Dr. Donald Lovett

Off-Campus Research Projects**Kathleen Bet**

New Jersey State Police Forensics Lab, Criminalistics Unit
Assessment of current glass analysis methods used in forensic examinations

Michael Coppola

Kimmel Cancer Center at Thomas Jefferson University, Bone Marrow Transplant Unit
Effects of KIR Mismatching on BMT Outcome in AML Patients

Joseph Cruz

University of Dentistry and Medicine of New Jersey, Department of Pathology
Molecular Cloning of an unc6/Netrin Suppressor uv Single Nucleotide Polymorphism (SNP) Mapping Using C. elegans

Jessica Fellmeth

University of Pennsylvania, School of Veterinary Medicine, New Bolton Center
AntiPhosphotyrosine Results from Capacitated and Cryocapacitated Bull Sperm

Daniel Fox

University of California, Los Angeles, Division of Hematology/Oncology
Inhibition of Signal Transduction in Breast, Prostate and Head/Neck Cancer

Clifton Fulmer

Lundbeck Research USA, Cellular Sciences, Cell Biology Laboratory
Establishment of Stable GPCR Expression in a Mammalian Cell Line

Jennifer Furchak

NJ State Department of Agriculture, Beneficial Insect Laboratory
Rhinoncomimus latipes – A Possible Biological Controlling Insect for MileaMinute

Krzysztof Glomski

New York Cancer Institute at the New York University School of Medicine
Identification of Replication Protein A Binding Partners via Tandem Affinity Purification

Luboslav Halik

New Jersey Medical School, Zeenat Qureshi Stroke Research Center
In Viro Investigation of the Use of Granulocyte Colony Stimulating Factor (GCSF)

Amy Huah

Jefferson Hospital of Neuneosciences
Retinal Ganglion Cell Death by Apoptosis Induced by Optic Neuritis in Relapsing Model of Multiple Sclerosis.

Francesca Khani

Princeton University, Molecular Biology Department
A Physiological Study of the Effects of the Periplasmic Sensing Domain of a HighAbundant MCP on Chemotaxis to Ribose in Escherichia coli

Arjun Majithia

Public Health Research Institute
Development of a Molecular Beacon Array

Courtney Mezzacappa

Rutgers University, Department of Cell Biology and Neuroscience
Interaction of PSD95 with Neuronal Proteins RSK1 and RSK2

Dupal Patel

UMDNJ Robert Wood Johnson Medical School
The Effect of Neuropeptide Y on Proliferation and Synaptogenesis of Hippocampal Cells.

Tara Pellegrino

Kimmel Cancer Center of Thomas Jefferson University, Microbiology/Immunology
Sorting of Tcell Hybridomas: A More Efficient Approach

Haroon Rahimi

UMDNJ Robert Wood Johnson Medical School
Feeding Behavior and Locomotion in kOpioid Receptor Knockout Mice

Deepika S. Rao

Effect of Various Bioagents on Blood Coagulation

Joan Soon

Donald Danforth Plant Science Center, St. Louis, Missouri

Investigation of PAMP Induced Defense Responses

Kobi Wilmot

Medical College of Wisconsin, Molecular Immunology

Inhibition Medicated by the Cis Interaction of Ly49C in NK Cells

Rachel Wu

Thomas Jefferson College of Graduate Studies, Department of Pathology

The Role of Cis and Transacting Factors in the EMT process in RPE Cells