

# THE LONG LIST

## Undergraduate Research Projects In Biological Sciences, 2002-2003



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- Morphological variation in a salt marsh snail, *Melampus bidentatus* (Say).
  - Investigation of the Expression of CEBP-B in Antipsychotic-Injected Mice
  - Novel mechanisms for the reduction of Hepatitis B virus e antigen expression.
  - CD4-Independent mechanisms of HIV-1 infection in B-cells and Glial cells.
  - Do changes in macrophage co-receptor expression occur and does this enhance or suppress survival of septic challenge.
  - Encapsulated Cell Therapy for Removal of Uremic Toxins: Uric Acid
  - The fabrication and characterization of Insulin loaded PIN microspheres for an oral drug delivery system for Type I diabetics.
  - A model for bacterial cross-feeding in a nutrient limited microcosm.
  - Physiological Effects of Yoga Training
    - Yoga Influence on VO<sub>2</sub>, VCO<sub>2</sub>, VE, HR, and BP
  - The role of vasopressin in the development of Cerebral Edema during traumatic brain injury.
  - The impact of family and culture in children's/adolescent psychiatry.
  - Accomplishing multifERENCE: simultaneous down regulation of multiple gene products using RNA interference.
  - Effect of parental involvement on the misbehavior of students in the classroom setting.
  - Bacterial Vaginosis and STD outcomes in Project PROTECT.
  - The role of BMP signaling factors in oogenesis.
  - *Community Level Engineering Effects of Triglochin maritima (seaside arrowgrass) in a Northern New England Salt Marsh.*
  - The Effect of Physical Fitness on Physiological Reactivity to Psychological Stress: A Meta-Analysis.
  - Pulmonary function in Parkinson's Disease during exercise.
  - The effects of diaphragm thickness on respiratory function and the onset of fatigue.
  - The effect of habitat architecture on the settlement of the blue mussel *Mytilus edulis*.
  - Ability of Dendritic Cells to Activate Natural Killer Cells: An In Vitro Study in the MCMV System.
  - Neighbor and density effects on *Arbidopsis thaliana*.
  - Molecular Mechanisms of Parathyroid Hormone (PTH) Binding.
  - Expression of Natriuretic Peptides and their receptors in the Choroid Plexus of NPR-A Knockout Mice.
  - Molecular genetic analysis of behavior in *Drosophila*.
  - Costs of Resistance Associated with Genetically Engineered Cold Tolerance in *Arabidopsis thaliana*.
  - Gene chip microarray analysis, GFAP and GAP-43 immunofluorescence staining in hippocampi removed from patients suffering Ammon's horn sclerosis.
  - Investigation of MRNA splicing of a novel insulin and IGF-1 Regulatory Protein.
  - Exploring the genetics and evolution of as a function of environmental quality.
  - Skin print patterns in Theropod Trackways of the Late Triassic.
  - Respiration and locomotion in the Painted Turtle.
  - Investigation of p22 light chain dynactin as a potential tumor suppressor gene.
  - Alaskan natives diet and diabetes
  - Testing of the tumor suppressor activity of the APAH gene.
  - Comparing hypoxic tolerance in three bivalve species of Narragansett Bay, Rhode Island.
  - Is X-Ray scattering an accurate measure of Radiation Dosing in Fluoroscopy?
  - Developing an in vitro Dendritic cell system for testing a DNA vaccine against cervical cancer.
  - The effects of the zona pellucida on embryo development.
  - The stepwise Post-translational processing of pro GHRH.
  - Novel Sasal Lamina Analog design utilizing microfabrication and polymer technology.
  - Bioadhesive polymeric ratios for improved bioavailability of hydrophobic drugs.
  - The place of the Endangered Species Act's citizen's suit provision in protecting biodiversity.
  - Kinetic analysis of C-MYC NW1 Fibroblasts.
  - Type 2 Diabetes and the Mediterranean diet.
  - Computational modeling and proposed docking of the SAP97 postsynaptic rat protein.
  - Function of tumor associated amino acid transporter LAT1 in cancer progression.
  - Cloning and sequencing of housekeeping gene cyclophilin to use as internal control for qPCR.
  - Race and the Body in Brazilian Science
  - Bat flight kinematics and ecological correlations.
  - The kinetics of the innate immune response in cultured composite Keratinocytes in response to stimulation by IL1, IL6, KGF.
  - Species coexistence in a variable environment.
  - IL-12 production by Dendritic Cells at the site of infection with *Toxoplasma gondii*.
  - Reproductive trade-offs associated with the innate immune response in *Drosophila*.