

Atrium Display 112

8:00-11:00AM

The characterization of a putative Vein1 homologue in Glycine max

Presenter(s): Henry Haringsma

A novel cDNA from the common soybean plant, *Glycine max*, has been characterized. Labeled Moe, this cDNA appears to be a soybean homologue of Vein1, a phloem-specific cDNA from the fava bean plant *Vicia faba*. Vein1 shows a constant level of phloem-specific tissue expression in wild-type plants and is believed to encode for a protein involved in mature phloem-tissue, though the exact function is unknown. My previous research has shown that Moe transcript levels in stem tissue are decreased in conditions of severe drought, but increased in the presence of excess nitrogen. The expression levels of Moe in stem tissue of *Glycine max* throughout various development stages were followed using quantitative PCR methods. Additionally, a genomic hybridization was performed in order to locate Moe homologues in a variety of plants, including monocots, dicots, and nonvascular species. This research is intended to shed light on the function and evolutionary conservation of Moe.

Sponsor(s): Margaret Dietrich

Atrium Display 17

2:00 – 5:00 PM

Act It, Draw It, Say It: A Mathematical Vocabulary Game

Presenter(s): Lisa Toth

Due to the complexity of the language of mathematics, it is essential that students be exposed to mathematical vocabulary in a meaningful way. One way to help students recognize mathematical representations of vocabulary words is through the use of games. Therefore, I have created a mathematical vocabulary game which allows students to explore vocabulary kinesthetically and through pictures and words. "Act it, Draw it, Say it" is a game designed for secondary classrooms where students will have the opportunity to act, draw, or orally communicate mathematical vocabulary words. The game is a combination of "Charades," "Pictionary" and "\$100,000 Pyramid." This compilation of familiar games serves to intrigue, challenge, and enhance students' curiosity and learning.

Sponsor(s): Charlene Beckmann

Atrium Display 15

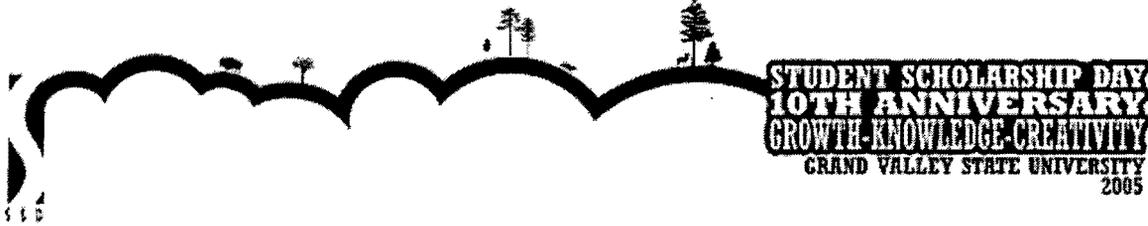
2:00—5:00 PM

Analysis of Georgia Peanut Production, 1990-2000

Presenter(s): Joe Van Alten

Baseball, Hot Dogs and Apple Pie! What about peanuts? Peanuts have long been an American favorite delicacy. Peanuts are largely grown in the southeastern United States where more temperate climates and favorable growing conditions exist. The state of Georgia has long been the nation's largest peanut producer and continues to own that distinction. This poster will focus on peanut production in the state of Georgia from 1990-2000. The change in production of peanuts over this time for this period will be examined. Some insight into trends and the future outlook for peanut production in the state of Georgia will also be introduced.

Sponsor(s): Kin Ma



PAD 108

10:20-1040AM

Examining the relationship between international organizations and national security

Presenter(s): Holly Bennett

Why do some countries contribute to UN peacekeeping missions while others do not? What accounts for the disparities in states' level of involvement in peacekeeping missions? By performing an in-depth analysis of the security policies and military budgets of two countries, we can determine what they believe to be the most effective approach to maintaining their security. To explain such policies we can use social constructivism, a theory which claims that a relationship of reciprocity exists between international institutions and states: not only do states create institutional structures, but institutions can also shape states' behavior.

Sponsor(s): Renato Corbetta

PAD 207

10:40-11:00 AM

Stem Cell Research and Society

Presenter(s): Patrick Hansma

Collectively society has generated a great deal of confusion about stem cells and stem cell research. This presentation is given with the purpose of resolving such confusion by defining the terms used in discussion of stem cell research, elaborating on conflicting ideas, and relating such topics to our local society. Michiganders can, thus, arrive at their own opinions and conclusions about this controversial topic and our society based on the facts here given.

Sponsor(s): Devereaux Kennedy

PAD 168

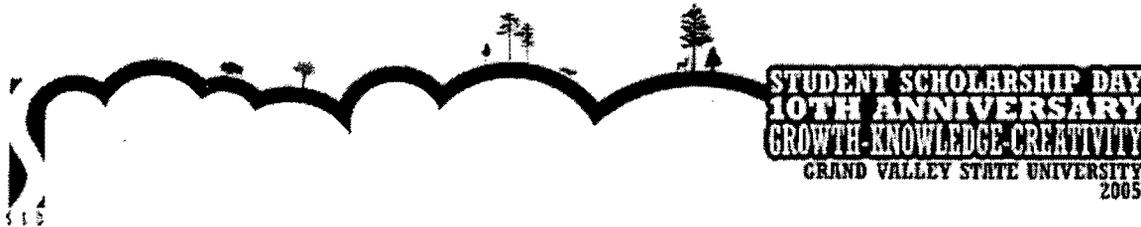
10:40-11:00 AM

Knee Anatomy Comparisons between a Human, Cat and Bat

Presenter(s): Amy Lohman

The placement of ligaments, patella, and menisci in the knee of an Australian fruit bat were compared to those of a human and a cat. Knees of all three species were dissected and the presence, attachments and roles of the structures were noted. Findings included similar anatomical structures in a cat knee as compared to a human knee. In the bat, the absence of patellae and menisci as well as a relatively larger medial collateral ligament was discovered. The differences between arboreal and terrestrial animals appear to be related to force transmittance through the knee.

Sponsor(s): Tim Strickler



PAD 211

2:00-2:20PM

Identifying and Assessing Water Pollution in the Ravine System at the GVSU Allendale Campus

Presenter(s): Lindsey Dewenter

This project involves testing the quality of water that runs through the Ravines system on the GVSU Allendale campus. I will use GPS technology to locate pollutants in the water and test the levels. The distribution of pollutants will be displayed spatially and analyzed for trends and patterns in relation to surface features. I will also sample pH, conductivity, and temperature to determine general water quality at specific locations such as areas close to walkways, discharge areas from parking lots, and points away from the campus. I will compare the samples taken further away from campus with those nearer to campus discharges to examine mercury concentrations.

Sponsor(s): Edwin Joseph

PAD 209

2:00-2:20PM

West Michigan Company Analysis

Presenter(s): Mark Fowler , Brandon Finnie

ABSTRACT NOT SUBMITTED

Sponsor(s): Yatin Bhagwat

PAD 211

2:20-2:40PM

The Effects of Sensory Integration Therapy on the Inappropriate Emotional Expression of Children with Emotional Impairment

Presenter(s): Janelle Corace , Rheagan Barnett

The purpose of this study was to investigate the relationship between inappropriate emotional behavior and sensory integration therapy. This research was a pilot retrospective study due to the fact that data was collected from past school records of ten elementary school children. In the case of this research there were four variables. The four variables studied included frequency and duration of treatment, types of treatment activities, and the behavioral characteristics that are measured by the Child Behavior Checklist. The researchers were looking for a relationship between the frequency, duration, and treatment activities of sensory integration therapy and inappropriate emotional behavior in the school setting. Throughout the school year, participants took part in the sensory program at their school, as part of their IEP (Individualized Education Plan).

Sponsor(s): Nancy Powell