

**COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY
APRIL 2002**

GOOD NEWS

BIOLOGICAL SCIENCES

Dr. Marilyn Hart, Assistant Professor, is the faculty mentor for two undergraduates who presented at the Minnesota State University Undergraduate Research Conference. Aja Bjerke presented- Identification of Interacting Proteins. Ben Jilek presented- Purification of Actin Capping Protein Alpha-subunit Isoform Specific Antibodies.

Jeff Gilbert (graduate student in Dr. Knoblich's lab) has been accepted into a doctoral program in the Center for Fetal Programming at the University of Wyoming, Laramie. This program is in collaboration with New York University. He will be completely funded as a research assistant, and was the only graduate student accepted by this researcher.

Chris Busse, (Exercise Physiology and undergraduate research student in Dr. Knoblich's lab) has been accepted into a postgraduate clinical training program in Medical Sonography at Johns Hopkins University, Baltimore, MD. Chris was one of 10 applicants accepted out of a pool of forty interviewees.

Rachael Holicky (Biology 2001) and Tami Thielbar (Biology, 2001) have been accepted into the University of Minnesota College of Veterinary Medicine.

Todd Dalberg (Biology, 2001) has been accepted into four Osteopathic Colleges of Medicine. He will attend the New England College of Osteopathic Medicine, Biddeford, Maine.

Cheruvilil, K. S., P. A. Soranno, and J. D. Madsen. 2001. Epiphytic macroinvertebrates along a gradient of Eurasian watermilfoil cover. *Journal of Aquatic Plant Management* 39:67-72.
Owens, C.S., J.D. Madsen, R. M. Smart, and R.M. Stewart. 2001. Dispersal of native and nonnative aquatic plant species in the San Marcos River, Texas. *Journal of Aquatic Plant Management* 39:75-79.

Madsen, J.D. and C.H. Welling. 2002. Eurasian watermilfoil (*Myriophyllum spicatum* L.). *LakeLine* 22(1):29-30. Spring 2002.

Madsen, J.D. and C.H. Welling. 2002. Curlyleaf Pondweed (*Potamogeton crispus* L.). *LakeLine* 22(1):29-30. Spring 2002.

Woolf, Thomas E. and *John D. Madsen*. Seasonal biomass and carbohydrate allocation patterns in southern Minnesota curlyleaf pondweed (*Potamogeton crispus*) populations. Midwest Aquatic Plant Management Society 22nd Annual Conference, 9-1 March 2002, Brookfield, WI.

Madsen, John D. and Daniel Helsel. Drawdown as a tool for whole-lake manipulation of the aquatic plant community of Big Muskego Lake, Wisconsin. Midwest Aquatic Plant Management Society 22nd Annual Conference, 9-1 March 2002, Brookfield, WI.

Jeff Gilbert, a graduate student in Dr. Penny Knoblich's lab and Chris Busse, and undergraduate student in the lab, submitted and presented two research papers on exercise during pregnancy in rats at the Northland Chapter of the American College of Sports Medicine (ACSM). Jeff's paper won first place, and Chris' won second place. Titles: (Jeff) "Effects of regular, voluntary gestational exercise on the development of hypertension in offspring." and (Chris) "Effects of voluntary gestational exercise on kidney development and body specific gravity in rat offspring." Studies were funded by FRG and URC grants, respectively.

COMPUTER AND INFORMATION SCIENCES

On Thursday, April 11, Dr. Colin Wightman will deliver an invited, keynote lecture entitled "ToBI or not ToBI?" to the Speech Prosody 2002 conference in Aix-en-Provence, France.

On March 19, 2002, US Patent No. 6,360,237 was issued to Colin W. Wightman and co-inventors David E. Schultz and Michael D. Crovitz for "Method and System for Performing Text Edits During Audio Recording Playback."

Dr. Ann Quade, Professor, is a member of the Grace Hopper Celebration of Women in Computing 2002 Conference, Vancouver, British Columbia, Program Committee. Under her direction, MSU hosted the web submission site for conference technical papers, workshops and panels, forums, and posters.

MATHEMATICS AND STATISTICS

A paper "Markovianity of a Subset of Components of a Markov Process" written by Dr. Pavel Kitsul in co-authorship with Israeli and Russian scientists was accepted for publication in an International Journal "Control & Systems Letters" (Elsevier Science, Netherlands).

Dr. Mary Ann Lee, Professor, participated in the Chautauqua Course for College Teachers, "Merging Mathematical Modeling with Secondary Mathematics Teaching Methods" at University of Arizona on March 8-10, 2002. The instructors were Drs. John Dossey, Frank Giordano and Sharon McCrone.

MECHANICAL AND CIVIL ENGINEERING

Dr. Karen Chou, Associate Professor in Civil Engineering, and a former student, co-authored the following paper: Molina, Augusto V. and Chou, Karen C. (2002) "Evaluation of existing bridges using neural networks", *Structural Engineering and Mechanics*, Vol. 13, No. 2, pp.187-209.

Dr. Vojin Nikolic, Associate Professor, took a group of fifteen mechanical engineering students, representing the ASME (American Society of Mechanical Engineers) Section at Minnesota State University, Mankato, to the 2002 Regional Student Conference in Wichita, Kansas on April 4-6, 2002. During the three days, the group participated very actively in a number of competitions. Our students won the following awards and recognition: Mr. Todd Backhaus won the Best Technical Score and \$50 in the Old Guard Oral Presentation Competition; Mr. Jon Hartman won the first place and \$200 in the Old Guard Poster Competition; Mr. Alan McMullen, our Section Chair, was recognized as both the Section Chair and an Outstanding Student. The MSU Student Section won the First place and \$100 for participation of its fifteen students at the Conference.

PHYSICS AND ASTRONOMY

Students from the Department of Physics & Astronomy had two presentations at the Undergraduate Research Conference held on campus on Monday, March 25. Astronomy majors Jeffrey Burkett, Lucy McDermond, Andrew Monson and Ian Radke presented a poster, "Calibration of CCD Photometry at Andreas Observatory"; the faculty mentor for the project was Steven Kipp. Physics major Adam Johnson gave a talk, "Development of a Biologically Based Control System in a Two Dimensional Simulation Environment"; Adam's mentor was Louis Schwartzkopf.

The Department of Physics & Astronomy was sponsor of this semester's EXSEL Lecturer, Mr. Clinton Crosby of Lockheed Martin Tactical Systems. Mr. Crosby's talk was entitled "Does Your Degree Objective Match Your Career Objective?" Mr. Crosby earned both a BA and an MA in physics from Minnesota State University, Mankato.

COLLEGE OF SCIENCE, ENGINEERING AND TECHNOLOGY

The Undergraduate Research Conference was held here on campus March 25-26. Many of our CSET students participated in the Conference and the following faculty in our College were mentors and advisors for their students' research projects: Mike Bentley, Alison Mahoney, John Krenz, Bill Hudson, Terry Salerno, Bruce Jones, Marilyn Hart, Brian Groh, Lou Schwartzkopf, Steve Kipp, Bryce Hoppie, Chris Ruhland, Brock McMillan, Kirk Ready, Penny Knoblich, Ann Quade, Mahbubur Syed, Elaine Hardwick and Steve Mercurio.

The Rube Goldberg Competition took place on Friday, April 5 in the Ballroom. Eighteen high schools and more than 200 students participated in this annual event. Rube Goldberg was an inventor and a journalist who created cartoons depicting large, complicated contraptions which performed a simple task. The student teams were asked to make their apparatus so that it simply peeled an apple. Faculty and staff from many of our departments acted as judges during the competition. A team from Kenyon High School won first place.