Genetic Engineering Debate

Al Klingelhutz, Senior
Biology Major

On November 5, 1985, the CSB/SJU Forum presented a debate on the motion: Genetic Engineering - The benefits outweigh the risks. Beverly Wochnick (junior natural science major), Oliver Orth (senior chemistry major) and Dr. Robert McKinnell from the University of Minnesota took the affirmative side. On the negative side were Julie Harrison (first year, premed), Katie Wilken (senior biology major) and Dr. Robert Sinsheimer, a biophysicist from the University of Minnesota.

The affirmative side began by stating the benefits of genetic engineering which include its widespread use in agriculture, medicine and the potential use of genetically manipulated organisms to clean up pollution. The side also said that it is necessary to recognize the widespread applicability of genetic engineering and that we must realize that this technology will always be with us.

The negative side looked at the potential risks that genetic engineering could unleash. These include embryological manipulation of human embryos, biological warfare, influencing the course of natural selection and evolution and causing epidemics by the accidental release of engineered organisms. Dr. Sinsheimer said that we are not immune to ecological disaster and that we are much too willing to accept any new technology that is profitable or militarily useful.

Both sides seemed to agree with each other to some extent. There is a realization that genetic engineering technology is useful and probably cannot be stopped. However, some control seems to be necessary. The negative side said that we should not disillusion ourselves that technology will take care of itself. The affirmative side conveyed the idea that we can, in a rational society, distinguish between the misuse and beneficial use of genetic engineering. I am sure the debate will continue.

Biology Club Update

There are a few great events in the upcoming weeks. The first is our Deer Count which will be held on December 7, 1985. Come hike through the woods of St. John's followed by beer and brats (for those who have or will pay their dues). Finally, our Christmas party will be held on December 10, 1985. Don't miss out on the fun! If anyone is a responsible host and is willing to act responsible at one of the above events, please contact Pete Spengler (3550).
Letter to the Editors

Dear Editors:

Now, where was the Bio Profile featuring Joan McDermott that was mentioned in the last issue? I searched cover to cover, up and down every page, even through Dave's incredible story about those creatures known as the "bio-gods" on campus, but was still disappointed to find no sign of it. Was it stolen on the way to the press? Did Dr. Cornell use it to catch chicken droppings in the physiology lab? Did Dr. Ross analyze it for percent lead in the chem department? Was it used as the score sheet in the bio club vs. chem club volleyball game?

signed,

Curious

Dear Curious:

We are just as puzzled as you. We suspect that the computer ate it, but have no solid evidence. In any event, we have rerun our BioProfile of Ms. McDermott in this issue. Enjoy.

BIOLOGY DEPARTMENT WELCOMED YOUNG VISITORS

The CSB/SJU Biology department was recently visited by more than 50 third-grade students from South Elementary School, St. Cloud, MN.

Dr. S.G. Saupe, who served as the department host, gave the children a tour of the Museum and Greenhouse. In addition, he led the children on an expedition to collect seeds from wild plants.

Afterwards, the children were scheduled to have a picnic lunch, and then take a nature hike with their teachers.

BIOHUMOR

The following "jokes" were submitted by Dr. P. Tate, a former member of the CSB/SJU Biology Department. Dr. Tate is currently teaching at Phoenix College, Arizona.

*Did you hear about the genetics expert who crossed a popular Scottish myth with a shark?.....She got a case of lockjaw.

*Did you hear about the shellfish that took a body-building course?.....He got mussel bound.

*Did you hear about the guy who though he was a big black bird?.....He was a raven maniac.

The BioClub and ChemClub recently locked horns in a volleyball match held in the Old Gym at CSB. More than 25 people played including several faculty. Although the score did not reflect it, the BioClub emerged the moral victor.

SMITH PRESENTS SEMINAR ON TERMITES

Ross Smith, SJU Senior Biology Major recently presented a noon seminar for the Biology department that described the results of his senior research project. His seminar was entitled, "An investigation into the subterranean termite colonies on the island of New Providence, Bahamas". Among other things, Ross observed a species of nematode living in symbiotically in the gut of the termites and he observed a species of ant coexisting with the termites in some of the mounds.
Bio Profile I: Joan McDermott

Jenny Stock, CSB Senior 
Biology Major

We would like to welcome Ms. McDermott (after some delay) to the CSB/SJU biology department. She is the temporary replacement for Sister Phyllis Plantenberg who is currently on sabbatical.

Ms. McDermott is currently teaching Life Science and Concepts of Biology labs, and she will include Developmental Biology in her schedule during spring semester. She is excited about this schedule, and is also looking forward to her J-term course entitled "Human Evolution."

As an undergraduate, Ms. McDermott studied at Purdue and received degrees in Molecular Biology and Biochemistry. Immediately afterward, she pursued an MA in Molecular Biology at the University of Wisconsin at Madison. She decided that she enjoys working with people more than doing research, so she stopped with an MA and now hopes to teach at the junior and senior high levels after completing a year here at CSB/SJU.

Ms. McDermott likes the atmosphere here. She has been participating in some of the clubs and teams on campus, such as the bio club and crew team. While attending the U of W at Madison, she developed a strong love for rowing and coxing, and recently returned to Madison with the SJU crew team, where she coxed our team to victory. And just last week, she helped the bio club reign over the chem club in the biggest volleyball extravaganza of the year.

We are fortunate to have Ms. McDermott here at CSB/SJU, and wish her good luck in the year ahead.

Bio Profile II: Dr. Ilze Berzins

by Pat Keffer, CSB Senior 
Natural Science Major

The dark-haired, dark-eyed woman who is frequently seen on the biology floor is one of our new professors, Dr. Ilze Berzins. Dr. Berzins teaches ecology and environmental science and will teach invertebrate zoology in the spring.

Dr. Berzin's education started with a year at Gustavus Adolphus College. After a year, she decided that her main interest was marine biology. Since Minnesota is about as far from an ocean as you can be in the continental U.S., she left to attend Stanford where she completed her bachelor's and master's degrees. After six months of travelling and working odd jobs, she took a research position at the University of Minnesota Research Hospital in the immunology department working on a vaccine for a common children's ear disease. After two years at the "U", she left to do graduate work at Berkeley. Animal behavior was her main interest. She spent six months in Panama studying the behavior of stomatopods, an aggressive crustacean. Dr. Berzins returned to California and finished her degree by studying sandy beach ecology.

Dr. Berzins is originally from Golden Valley, MN and she enjoys being near her home again. She enjoys water sports such as kayaking and windsurfing and she loves chocolate.
Potential Treatment for Neonatal Jaundice

Jaundice, which is caused by the accumulation of bilirubin in the blood, is often a serious problem in human newborns. Bilirubin toxicity may lead to mental retardation, cerebral palsy, deafness, seizures or death.

The two most common treatments for jaundiced infants are phototherapy and exchange transfusion. In phototherapy, the infant is exposed to blue light which converts the bilirubin to less toxic substances. Unfortunately, only about 15% of the total bilirubin levels can be converted by this process and hence is not effective in treating severe causes of jaundice. In exchange transfusions, the infant's blood is replaced with bilirubin-free adult blood. This procedure may result in a variety of problems including hypoglycemia and the transmission of infectious diseases.

Lavin and colleagues reported in the 1 November, 1985 issue of Science that they have developed an enzyme filter technique that effectively removed bilirubin from the blood. In this technique, an enzyme for degrading bilirubin is attached to some beads which are placed in a small column. As jaundiced blood is passed through the column, the enzyme selectively converts the bilirubin to non-toxic byproducts.

This therapy has successfully treated rats and works with human blood and lacks the problems associated with conventional therapies. This procedure may have important applications in the clinical treatment of severe cases of neonatal jaundice.


RODELL ATTENDS MEETING

Dr. Charles Rodell, CSB/SJU Biology Department, recently attended a conference in Atlanta, Georgia sponsored by the Association for General and Liberal Studies. The theme of the workshop was, "Liberal Education - Expanding Horizons in a Shrinking World." Dr. Rodell attended this meeting as a representative of the CSB/SJU Core Curriculum Council, which is a committee working to establish a common set of requirements for St. Ben's and St. John's.

SAUPE VISITS AUGUSTANA COLLEGE

Dr. S.G. Saupe, CSB/SJU biology faculty, was recently invited to Augustana College, Sioux Falls, South Dakota, to present a seminar. Dr. Saupe's presentation, which was entitled, "Poisonous mushrooms - fact and fiction", described the biology, chemistry and the history of human use/abuse of poisonous mushrooms.

DONNERMEYER ATTENDS MEETING

Mr. Gary Donnermeyer, CSB/SJU Biology Department, recently attended the annual meeting of the National Association of Biology Teachers which was held in Orlando, Florida. Professor Donnermeyer reports that he attended many interesting sessions including "Cognitive Development in the Science Classroom" and "Women and Minorities in the Sciences". He also had the opportunity to participate in field trips to SeaWorld and Reptile Garden.