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HEALTH FRONTIERS & SCIENCE

Monday . September 5 Monday .

The Battalion's approach to science

New weekly section in paper

Cience. It's a short word, easy to pronounce, fairly easy to spell, yet for some reason, millions of people shudder when they hear it mentioned.

They see science as complicated and difficult to understand. They believe it has no relevance to their daily lives. As a result, people avoid science whenever they can. It's easier for them to ignore than to try to understand. The Battalion has also been guilty of this in recent years. But, that's about to

MARK **EVANS**

Managing Editor

change. In this issue, The Battalion introduces its Frontiers section. A weekly feature appearing in Monday's newspaper that will focus on health and science — their issues, their advancements, their key players, and their relevance to everyday life.

We hope to make science interesting to read about and to present it in ways where everyone can understand what's going on. Instead of approaching topics from a technical aspect and giving readers more information than they need or want to know, we'll boil complex topics down, making them easier to digest.

For example, in an upcoming issue we'll examine DNA fingerprinting and why it's such a hot topic right now. We'll tell you why its use in the O.J. Simpson case is so hotly debated by the attorneys on both sides and what the issue means to future court cases that involve rape or murder.

In stories appearing in this section, we won't limit our-selves to telling you only the scientific aspect of a topic. The story would be incomplete. Scientific endeavors do not take place in a vacuum.

Researchers can no longer look down on the world from their ivory towers in academia. In today's world, economics and politics are playing an ever-growing role in fields of scientific research. Scientists are learning that to be successful they must confront political, social and economic issues. As part of our coverage, we will give readers a complete view of everything that goes into research.

The field of science is growing by leaps and bounds every year. Less than 50 years ago scientists deciphered the structure of DNA, which determines a person's genetic blueprints. Today, this information is being used to de-velop ways to treat diseases such as cystic fibrosis and muscular dystrophy.

In this section we'll focus not only on national scientific issues and research but also on the types of research going on here at A&M.

Texas A&M spends an estimated \$305 million annually on research. Currently, A&M scientists are studying topics that range from saving endangered sea turtles to growing more productive crops to testing the effective ness of tuberculosis vaccines. In the coming months, we'll introduce you to these people and offer you a glimpse of the work they do

We have no lofty goals for this section. We simply believe that science plays such an important role in modern society that The Battalion should join the ranks of other newspapers in keeping its readers abreast of the latest scientific advances. And, if we can make science interesting to read about and if readers put the section down knowing something they didn't before, then all the better.

Mark Evans has a journalism degree from Texas A&M and is currently completing a second undergraduate degree in biology.

A&M cloning cows for better burg Stic

By Katherine Arnold THE BATTALION

The College of Veterinary Medicine is attempting to create the genetic blueprint for cattle through a new genetic project de-signed to pinpoint desired genetic traits.

The National Cattle Genome Project is attempting to map the genetic code of cattle. Once scientists know where the genes are located, the genes may be altered to serve such functions as improve milk production or prevent disease

Dr. James E. Womack, coordinator for the project and professor and associate head of the Department of Veterinary Medicine and Pathobiology, said the research could have major implications on the cattle indus-

"By creating a map of the entire genome of cattle, we hope to be able to locate important genes involved in milk production and meat quality," Womack said. "We have already discovered the location of certain genes, such as the genes for certain diseases and characteristic genes like the gene for horns.

The number of chromosomes and the location of genes in the chromosomes determines unique characteristics and distinguishes the difference between living organisms. The chromosomes are found in the nucleus of all cells. Cattle have 60 chromosomes, whereas humans have 46 chromosomes.

Researchers use a unit called a centiMorgan to judge the accuracy of their research. Womack said at this point in the study, the gene map is accurate to within 20 centiMorgans, or has an 80 percent accuracy

Through this project, researchers hope to be able to cure genetic diseases. "We want to be able to breed lines of cat-

tle that are resistant to infectious diseases, Womack said.

The University is one of approximately 10 laboratories around the country participating in the research which is is funded by the United States Department of Agriculture.

Much of the information garnered by the project is also used for comparative studies. The genome map for cattle can be compared to the map for humans and mice, Womack said

"We have discovered that the breakage of chromosomes has been conservative throughout evolution," he said. "We can find many of the genes for specific traits or diseases in cattle and mice in approximately the same location on the chromosomes in humans. All the research complements each other.

Dr. Susan Hardin, director of the Gene Technologies Lab in the Department of Biology, said that genetic research such as the National Cattle Genome Project is beneficial to the scientific community.

"Some genetic research is done with the knowledge for knowledge's sake' goal in mind," Hardin said. "Researchers never know when they begin a project what the result will be and how it will impact the rest of the scientific community.

The College of Veterinary Medicine is conducting genetic research into other areas as well

Dr. Duane C. Kraemer, associate dean for Research and Graduate Programs in the College of Veterinary Medicine, said studies are being conducted in genetics, reproduc-

Some children walk the family dog, year-old Michael Mackey, of Olathe, walks his family's heifer at the J County Fair.

tive systems, diseases, and compar search between humans and animal 'We have a mission of impro

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knowledge base on animal and health to promote education of stude the public regarding these matters, mer said.

HEALTH TIPS Pre-game reminders for A&M football fans this fall spiring or producing sw it should be, seek medi

Want to get the most out of the football game Saturday? You've got your 12th man towel, but is that all you need? Try these helpful hints to help keep the Twelfth Man healthy and safe

• When dressing for the big game, keep in mind that wearing loose-fitting, lightweight, lightcolored and cotton or cottonblend clothes allows air to circulate and body perspiration to evaporate. Comfortable, sup-portive shoes are a must if you plan to stand the length of the game with the Twelfth Man.

· Sunglasses with UV protection, sun screen and caps can all help protect you from the sun's damaging rays.

Drink plenty of cool water both before and during the game. Drinking water instead of sugarsweetened beverages will help replenish body fluids. You may lose two to three quarts of water a day. Drinking eight ounces of cool water every 15 minutes when perspiring heavily is sug-

gested. The athletic department permits water to be carried into the game in quart-size or smaller containers.

• Use caution with caffeinated drinks such as coffee, tea and cola and alcohol because they may act as a diuretic that removes water

from your body, increasing urine production. You can't always rely on thirst to tell you when you

need water. Keep mind that if you have alcohol on game day, alcohol increases the level of body de-

hydration, the heat will increase blood circulation, and you may become drunk more quickly. This can be particularly dangerous to your health and safety. Even if you consume alcohol the night before the game such as at yell practice or at parties, it can as well. If your body is not per-

add to dehydration on game day. Drinking or not, be aware of other football fans who may be drinking and driving.

• Another precaution is to check the temperature and the relative humidity. When the relative humidity gets to be around 75 percent, you

may not sweat and your body may be unable to use the body heat you would nor-mally lose through perspi-

allowed in Kyle Field ration. good breakfast and lu • If your begin to see dark spots

you go. Planning a meals will help you m or experience healthy blood sugar! dizziness, nausea or chills, beware. avoid feeling dizzy or fa

• If you're tailgating Drink some water, get into the family, keep the food sa Bacteria can grow ver and spoil the food and shade, sit down for a while, or go to one of the first aid stations at joyment of the game. Be Kyle Field. The main station is located at the north end of the food is cold before pla the cooler. Use enoug stadium near the horseshoe and keep the temperature be a station is located on each deck degrees for storage of cold

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