Howdy!
Making a Difference in Veterinary Medicine:

College of Veterinary Medicine & Biomedical Sciences

Eleanor M. Green
Texas A&M University
“Try not to become a program of success but rather to become a program of value.”

Leonard Cohen

Albert Einstein
Feta alcohol syndrome research
Training for Ham’s Mercury flight – 1960–61

Jerry Finneg, DVM

January 31, 1961
Texas Animal Health Commission works to protect the health of all Texas livestock, including: cattle, swine, poultry, sheep, goats, equine animals, & exotic livestock.
Veterinary Medicine Caucus 2013
U.S. House of Representatives

Kurt Shrader, DVM D–OR

Ted Yoho, DVM R–FL
Debbye Turner, Miss America 1990.
Educating Veterinarians
28 CVMs in US

2500 veterinarians/year
130/year Texas A&M
Only CVM in Texas

Over 8% of nation’s veterinarians are Aggies
Only CVM in Texas

Belongs to all Texans – Texas A&M Plus
Saving Texans money
“Crown Jewel on Campus”
Quality Programs
Quality Graduates

One of the best in the world
Mission

- Through teaching, research, & outreach, enhance animal, human, & environmental health (ecosystem) in local communities, the State of Texas, our nation, & our world.
Serving every Texan every day
Teaching

- Undergraduate (BIMS)
- Veterinary (DVM)
- Graduate (MS & PhD)
- Graduate (Residencies)
Teaching

- Undergraduate (BIMS)
- Veterinary (DVM)
- Graduate (MS & PhD)
- Graduate (Residencies)
Biomedical Sciences (BIMS)

- Pre-professional program & pre-research
- ≈2000 students
  - Largest degree-granting undergraduate major
- “2 + 2” agreements with 12 community colleges around the state
- ≈500 1st generation college students
- Diversity success
BIMS – Biomedical Sciences

- One of highest rates of acceptance to medical schools compared with any other program in Texas
BIMS
Teaching

- Undergraduate (BIMS)
- Veterinary (DVM)
- Graduate (MS & PhD)
- Graduate (Residencies)
Professional – DVM

- Each Class Total Number of Students – 132
- 75% Female: 25% male

Dr. Kenita Rogers, Associate Dean of Professional Programs
Classroom

Laboratory
Small Animal Hospital
Serving Texans
Teaching Students
Primary Care
Texas A&M is my trusted veterinarian.
Dentistry
Surgery
Orthopedic Surgery
Internal Medicine
Neurology
Critical Care
Emergency Medicine
Rehabilitation
Interventional Radiology
Zoological Medicine
Zoological Medicine
DEDICATED TO IMPROVING PET HEALTH

Together with veterinary professionals, Partners for Healthy Pets consistently helps to ensure pets receive the preventive healthcare they deserve—so they enjoy longer, healthier lives with their owners.
Large Animal Hospital
Primary Care

Ambulatory
Dentistry
Lameness
Critical Care
Reproductive Services
Male & Female
Large Animal Hospital
State of the art hospital
State of the art graduates
Graduate Appeal

Successful Graduates
Satisfying even the most discriminating patients
Teaching

- Undergraduate (BIMS)
- Veterinary (DVM)
- **Graduate (MS & PhD)**
- Graduate (Residencies)
Graduate Education

Bhanu Chowdhary
Associate Dean
for Research & Graduate Studies

Jane Welsh
Assistant Dean
for Graduate Studies
Research – Signature Programs

- Biomedical Genomics
- Cardiovascular Sciences/ DeBakey Institute
- Infectious Disease & Biodefense
- Neuroscience
- Reproductive Biology
- Toxicology, Oncology, Environmental Health Sciences
- Veterinary Clinical Research
Graduate Education
Teaching

- Undergraduate (BIMS)
- Veterinary (DVM)
- Graduate (MS & PhD)
- **Graduate (Residencies)**
Have you heard the news?
Diagnostic Imaging & Cancer Treatment Center
CT – Computed Tomography

Brain tumor
MRI – Magnetic Resonance Imaging
Dachshund Spinal Cord

Diffusion Tensor Imaging (DTI)

Special MRI that measures water diffusion in spinal cord

For:
- Multiple sclerosis
- Spinal cord trauma
- Spinal cord cancer

Blue is white matter of spinal cord
Aneurysm
Arthritis of Knee
At A&M Veterinary Clinic, High-Tech Equals Hope

A&M Treats the Once Untreatable

Tumor-targeting technology gives beloved pets a chance at active life
A&M Treats the Once Untreatable Tumor-targeting technology gives beloved pets a chance at active life
Diagnostic Imaging & Cancer Treatment Center
Still Awake?
The Only College of Veterinary Medicine in Texas
Veterinary Education Building
Small Animal Hospital Expansion
Veterinary Education Building
Traditional & Flexible Classrooms
Changing paradigm from teaching to learning
Watering Hole
Simulation
Clinical Skills Labs
Canine Abdomen

University of Sydney
Holstein Dystocia Model
One Health

The Circle of Life
The inextricable link between animal, human, & environmental health (collectively our ecosystem)
Protect animal, human, & ecosystem health

One Medicine
One World
25 million people
Texas Is a Border State
West Nile Virus 1999

- September 14, 1999
- WNV isolated from tissues of flamingos & pheasants from Bronx Zoo
- WNV isolated from crows in NYC
- By NVSL of APHIS of USDA
West Nile Virus 2012
Texas Drought of 2011
Research

- Signature Programs
- (Programs of Preeminence)
Cover Articles by CVM Scientists

Marsupial genomics; Mikkelsen et al. (Samollow), 2007

Brain development; Chen et al. (Li), 2009

Canine genetics; Clark et al., (K. Murphy), 2006

The Bovine Hapmap Consortium (Womack, Skow), 2009

Infectious disease models; Lanzas et al. (Ivanek), 2010
Cloned more species than anywhere else in the world

- Cattle
- Swine
- Goat
- Horse
- Deer
- Cat
Genetically Modified Goats

Mark Westhusin
Genetically Modified Goats

$300M Vaccine Production Facility

$3M Goat Facility
Ghana
Toxin Binding

- Clay product which binds toxins in the stomach & intestines
- Reduced toxicity & cancer causing ability
- Aflatoxins
Brain Tumors

Ashley

Bootsie
MRI – Magnetic Resonance Imaging
MRI – Magnetic Resonance Imaging

Ashley

Bootsie
Ashley

TomoTherapy

Bootsie
Saving the lives of children and animals

Ashley

Bootsie
Brain Tumors

One of the greatest killers of children
Brain Tumors
Cancer
Non Hodgkin Lymphoma

Karen
Red
Non-Hodgkin Lymphoma

Autologous T-Cell therapy

developed at MD Anderson Children’s Cancer Hospital
Non-Hodgkin Lymphoma

Autologous T-Cell therapy

developed at MD Anderson Children’s Cancer Hospital
Finding the Cure

MADE IN THE USA
Who Is the Cancer Survivor?
Spinal Cord Injury
US Department of Defense
Grant
Drug GM6001
Treat spinal cord injury

Jon Levine
Dr. Jonathan M. Levine, a veterinary neurologist at the Texas A&M University College of Veterinary Medicine & Biomedical Sciences, joined forces with the medical school at the UC, San Francisco, to test a promising new drug that blocks a particular enzyme that inflicts secondary damage, like the aftershock to an earthquake, on injured spinal nerves. Working with dachshunds & other dwarf breeds, which often suffer from spinal cord injuries because of their propensity to develop herniated discs, he recently won a grant from the Department of Defense, interested in the application of his research to battlefield injuries.
The Opossum Genome

Can regenerate spinal cord
One of these is a heart patient...
Cardiac Device Research

New Cardiac Devices
New Minimally Invasive Procedures
New Lease on Life
We all have pacemakers
The CCOB will catalyze a first in class lasting partnership between the premier human heart institute and the premier college of veterinary medicine – ONE HEALTH
Doris A. Taylor, Ph.D., FAHA, FACC

Created a beating heart in the laboratory
Michael E. Debakey Institute
Decellularise

- Developed technology to create cardiac scaffold from any species

Recellularise

- Developed technology for stem cells to fully repopulate that scaffold into a beating heart

Created a beating heart in the laboratory

Personalized organ replacements
Dr. Doris Taylor was recently named to Time Magazine’s 100 most influential people of 2009 for creating the first lab-grown heart.

2008 Popular Science Award for most important health discovery of the year