THE LEONARD W. GOSS LABORATORY of veterinary pathology was built in 1962 and houses the department of veterinary pathology as well as classrooms and laboratories. It is located west of the Olentangy River and Sisson Hall and is one of six major academic buildings in the Agriculture and Veterinary Colleges complex across the river road from the main campus. The planned new veterinary hospital will be built directly from the north wing of Goss Lab, according to present University plans. The dominant glass column that divides the building at the center is similar to the glass divisions of the Mathematics building on W. 18th Avenue and the Fine Arts building on North Oval drive. All three buildings were constructed about the same time. Goss Lab was named for Professor Goss who was chairman of the department of veterinary pathology from 1920 until he retired in 1947. He was an '05 graduate of Ohio State and had taught at Kansas State College. He had also done research for Parke-Davis before returning to the University in 1920.
Pre-race Test for Horses
Developed by Veterinary Medicine

If a pre-race test for drugs developed at Ohio State had been conducted at this year’s Kentucky Derby, chances are the presence of the drug phenylbutazone in Dancer’s Image would have been detected before the horse ever set foot on the track.

The test has been used at a Columbus race track for the past two seasons and is the only active pre-race testing and research program in use at this time. It was developed in 1965 by Dr. Philip W. Murdick and Dr. Richard Ray under the direction of Dr. Vernon Tharp, clinic director of the College of Veterinary Medicine.

Testing takes 25 to 35 minutes and can be completed on a mobile laboratory stationed at the track. Results of the testing are available before post time while horses are still in the paddock area. If the results prove suspicious or questionable, the horse can be scratched from the race.

A blood sample is taken from each horse and semi-automatic procedures are used to screen the samples for the presence of stimulants, analgesics (such as the drug found in Dancer’s Image by urinalysis, a post-race test method), and depressants.

A major part of the pre-race test program is research on the effect of drugs on horses. This continuing research is carried out at the campus in special laboratory facilities. The testing and research program has the support of the Ohio Racing Commission as well as several racing associations and organizations.

Ohio racing laws dictate that no horse can be given drugs or medicines of any kind within 48 hours before racing unless the drug or medicine has been authorized by the Ohio Racing Commission and administered by a veterinarian designated by the commission.

During the first season the pre-race program was used at the Columbus track seven suspicious cases were found and the horses eliminated from the race. Last year only one horse was scratched as a result of the tests.

Embarrassment and confusion could have been eliminated had Dancer’s Image been examined previous to the running of the Kentucky Derby,” Dr. Tharp said. “Such testing is fair for the horse and fair for the racing public as well as track officials and race horse owners.”

Dr. Tharp said racing procedures at harness race tracks are more adaptable to the pre-race testing program because horses are kept in holding barns and paddocks for longer periods prior to the race than they are at thoroughbred tracks.

“Harness horses may be readyed as early as four races ahead of the one in which they are entered,” he said, “so we have plenty of time to take a blood sample and run our tests.”

Thoroughbred racing procedures do not require the horses to be in the paddock more than 20 or 30 minutes before a race, so it would not be feasible to use the pre-race testing unless the procedures are modified.

Dr. Tharp said the worth of the program depends on continuing research on new drugs and their effects on horses.

Blood samples are taken by Dr. Richard Ray (right) as first step of a test to determine presence of drugs in animal’s bloodstream. The pre-race test devised by Ohio State can be completed as the horses are readyed for a race, and the results of tests are made available before post time. Assisting is Larry Sautter, VetMed student from Galion.

Blood screening test can be conducted in pre-race testing mobile laboratory. Assistant professor Dr. Richard Ray and lab technician Sue Bland show how test can be conducted in lab stationed at race track paddock. Larger lab facilities at the College of Veterinary Medicine are used for research to determine effect of drugs on race horses.
OSU clinic finds race horse drug abuse

By Brian White

For the past three years, Richard A. Sams, DVM, has been fighting a serious drug abuse problem in Ohio. The victims he is concerned with, however, are not humans, but horses.

Sams, an assistant professor of veterinary clinical sciences, is the director of the drug detection laboratory in the OSU College of Veterinary Medicine. His lab's primary function is to spot the use of drugs in race horses for the Ohio Racing Commission (ORC).

Since Sams became director of the lab in 1979, the number of race horses found containing drugs in Ohio has increased. From 1974 to 1978 the lab performed four positive drug tests. In his first two years, 37 drug cases were found. So far this year, Sams and his assistants have already found 70.

A graduate from the OSU College of Pharmacy, Sams came to the veterinary college to build a research program to develop new methods of detecting illegal drug-related racing practices.

He said his major contribution to the program has been helping develop methods of testing for a greater number of drugs than was possible in the past.

"Before 1979 the lab could only detect the most commonly used stimulants," he said. "Now, through extensive testing and research, we know what to look for in order to spot many different types of narcotics, tranquilizers and pain relievers."

When a new or unusual drug is found in a horse, Sams experiments with it at the clinic to find what, if any, effects it may have on a horse's running ability. He said the testing methods he uses can show signs of these effects without causing any harm to the lab's horses.

Sams and his staff test urine samples from the first and second-place horses of every race that takes place on Ohio's seven tracks. Other horses who show unusual speed are also tested on request of the track stewards. The number of samples adds up to about 16,000 a year.

Immediately after a race, samples are taken and stored away by track veterinarians. They arrive at Sams's lab the following day.

From the time the samples are delivered to OSU, they are accessible only to Sams and his staff. This way, he said, any possibilities of tampering are eliminated.

After receiving the samples, the staff runs each through seven different tests so that no drug present goes undetected.

If all tests are negative, Sams notifies the track officials. Only then can the purse money be awarded to the owners of the winning horses.

Dr. Richard A. Sams, assistant professor in veterinary clinical sciences, uses thin layer chromatography to check for drug usage in Ohio race horses.

If tests show signs of drug use, Sams calls the ORC, which investigates the matter further, using lab reports as evidence. A trainer found guilty of drugging a horse could lose his license for three to six months, he said.

Even though the penalty is harsh, Sams said trainers are forever trying to "beat the system" by finding new ways of increasing the speed of their horses.

"It's like a game," he said. "While we try to stay on top of things and discover the types of drugs trainers use, they are also watching us to see what we are able to detect."

Sams said his part of the game involves collaborating with researchers around the country and learning what drugs could appear in Ohio in the future.
Abuse charge leveled

WASHINGTON (UPI) — Federal officials said Tuesday they have charged Ohio State University with abusing kittens in the university's research facilities.

R.D. Stauffer, the Agriculture Department's area veterinarian for Ohio, said the charges allege that the university provided no veterinary care or treatment for about 40 kittens.

The university is registered with the Agriculture Department as a research facility. Officials said it is covered by the federal Animal Welfare Act's provisions for humane treatment of laboratory animals, including cats.

Stauffer said the kittens in question had lesions around their necks and some had metal chains with identification tags inbedded in the flesh of their necks.

Chains were placed around their necks when the kittens were younger and were not replaced or lengthened as they grew, the government charged.

The university has 20 days to respond to the charge, leveled by the department's Animal and Plant Health Inspection Service, and can request a hearing before an administrative law judge.

Officials said failure to answer would constitute admission of the charge.

If found in violation, the university could be issued a cease-and-desist order and be fined up to $1,000.
OSU officials deny cat abuse charges in research program

By Barb Carmen
Lantern staff writer

OSU officials Wednesday denied charges of abusing kittens used in the university's renowned cat leukemia research program.

They said the cats were "absolutely not mistreated."

The charges allege OSU failed to provide proper veterinary care or treatment for 40 abused kittens previously housed in the university's research facilities in Goss Laboratory.

The charges were filed Dec. 31 by U.S. Department of Agriculture (USDA) officials. They stem from a June 15, 1980 complaint from a research facility in Kansas City, Mo. which received the cats from OSU.

The charges allege "all of the kittens had lesions around their necks and some had metal chains with identification tags embedded in the flesh of their necks," said Max Hepper, public information officer for the USDA.

The suit alleges the chains were placed on the kittens' necks when they were younger and were not replaced or lengthened as they grew, Hepper said.

"When the cats went out of here they were healthy," said Ronald A. Wright, dean of the College of Veterinary Medicine.

Richard L. Olsen, discoverer of the first feline leukemia vaccine, used the kittens in his research. He denied the charges.

"Believe me, we don't abuse cats," he said. "The cats that are here are in a super facility."

Olsen said the veterinary college spends more than $30,000 annually to maintain the cat colony in his laboratory.

He said he had documentation proving Edward A. Hoover, a former OSU veterinarian, had seen the cats before they left OSU and they were healthy at that time.

Olsen said any abuse of the cats probably occurred after they arrived in Kansas City. He said he sold the kittens to Jensen Salisbury Laboratories because the colony in his laboratory was becoming overcrowded and he did not want to destroy the animals.

Olsen said he had seen pictures of the abused kittens during a USDA investigation and believes the lesions were caused by external abrasions.

"One possibility is that they were housed in some sort of wire cage in which their collars could have gotten hung up," Olsen said.

A spokeswomen for Jensen said the company "is only involved as a witness." She said Jensen sold the cats to the University of Missouri in Kansas.

Gerald Shook, a veterinarian with Ohio's agriculture department, said he inspected the kittens in question less than one month before they were shipped to the Kansas City facility and found they were well cared for.

"I have never seen any evidence of this (abuse) before," Shook said.

He said identification chains are placed routinely on research animals to provide information about the animals' histories.

OSU has until Jan. 20 to respond to the charges. Failure to respond would constitute admission of the charges.

OSU could be fined up to $1,000 if found in violation of the federal Animal Welfare Act's provisions for humane treatment of laboratory animals.
Federal officials found maintenance and sanitation deficiencies at an OSU research laboratory less than five weeks before kittens from the lab were purchased by a Kansas City, Mo. research facility.

During a May 6, 1980 inspection both "minor and major deficiencies were found" in Goss Laboratory where the kittens were housed, said D.R. Stauffer, U.S. Department of Agriculture (USDA) inspector for Ohio.

Stauffer said a minor deficiency could refer to improperly sealed food containers and major deficiencies could include overcrowding or rundown facilities.

The USDA charged OSU on Dec. 31 with abusing 40 kittens used in the university's cat leukemia research program.

The charges stem from a June 17, 1980 complaint and allege OSU failed to provide proper veterinary care or treatment for 40 abused kittens previously housed in Goss lab.

Jensen Salisbury Laboratories in Kansas City filed the complaint after purchasing the animals, Stauffer said.

The suit alleges the kittens had sores on their necks and some had metal identification chains embedded in their flesh.

John Kinsella, a USDA compliance officer, said he could not reveal the exact nature of deficiencies found at Goss lab May 6 because the inspection report may be used to prove the abuse charge.

USDA officials notified OSU of the deficiencies during the inspection and the university corrected them within a reasonable time period, Stauffer said.

"Deficiencies are very common," Stauffer said, noting inspectors find deficiencies in more than 50 research facilities per year.

He said no problems were found with animal identification chains during the Goss lab inspection.

Richard G. Olsen, discoverer of the first feline leukemia vaccine, used the kittens in his lab. He denied the abuse charge Wednesday.

"Believe me, we don't abuse cats," Olsen said. "The cats that are here are in a super facility."

Olsen said lab deficiencies consisted of chipped paint and improperly hung doors.

The cats were moved to OSU's Laboratory Animal Center for almost a year while repairs were made in Goss labs, said Ronald A. Wright, dean of the College of Medicine.
Animal Research

‘Benefits of research outweigh problems’

By Tom Havener
Lantern staff writer 8-13-82

A professor of veterinary medicine at OSU says veterinarians are just as concerned about animals as animal rights groups are.

Dr. Milton Wyman, who is also president of the Ohio Veterinary Medical Association, said, “I am not in favor of unneeded pain or stress. Veterinarians are very much concerned with the well-being of animals.”

“But, stopping animal research would be extremely detrimental to medicine and other related sciences,” he said.

Wyman said most of the research done at the Veterinary Hospital involves naturally occurring diseases in the animals being studied.

Research done on animals with the painful disease glaucoma led to the relief of pain, Wyman said. “The benefits of animal research far outweigh any of the problems,” he said.

Dr. Ronald L. Bell, director of the department of animal laboratories, said he was sensitive to the viewpoint of animal rights advocates but said, “We are as healthy as we are today because of advances made through medical research.”

The development of the first polio vaccine was made through the use of animal subjects. All vaccines, in fact, are tested first on animals. All drugs consumed in this country are first given to animals to determine toxic levels, Bell said.

The first studies of blood type were done on animals as were procedures for placement of artificial heart valves, Bell said.

Bell said Wiseman Hall is one of 18 regional cancer centers across the country and that much of the work in cancer research involves animals.

“We just aren’t going to find the answers without these research methods,” Bell added. Bell said besides cancer, research in Wiseman Hall was being conducted on cardiovascular disease and spinal cord injuries.

Bell estimated that 1,850 of the 2000 animals that Wiseman Hall has are rats and mice.

He said that alternative methods, such as tissue and cell cultures, are used whenever possible, and added that it is cheaper to do so.

Bell said animals are used in experiments because they are a suitable model of humans. Tissue samples are not complex organisms, he said, therefore at some point testing must involve the use of living organisms.

Jeff Botti, spokesperson for Battelle Memorial Institute said cancer research with animals done in their laboratories in Columbus led to the development of the drug Adriamycin. It is now the most commonly used drug in chemotherapy.

Wyman said the number of so-called “horror story” experiments which occur is insignificant and therefore invalid as an argument for ending all research with animals.

Compilation of many statistics would require the opening of confidential medical records, Wyman said.

‘Animals have and express feelings’

By Tom Havener
Lantern staff writer 8-13-82

Animal rights organizations say in some cases research methods in experiments with animals are unnecessary and inhumane.

“Animals have and express feelings. What right do humans have to do terrible things to other living creatures,” asked Helen Buccella, spokesperson for People for Animal Rights.

“Seventy percent of all research done on animals could be conducted using alternative methods like mechanical and computer models, microorganisms (protozoa, bacteria,) and tissue cultures,” Buccella said.

Animal rights advocates say researchers cannot conclusively prove that experiments done on animals are applicable in all cases to humans.

Buccella said a significant number of research projects never result in papers being published. Often when papers are published, the only benefit of the study goes to the person receiving a doctoral degree, Buccella said.

Many experiments could be eliminated, she said, if statistics on injuries caused by automobile accidents or burns were compiled on a national level.

Buccella said research procedures in some cases reach the level of “horror stories.” According to literature put out by the group, burn studies conducted in 1980-81 at Louisiana State University involved the immersion of conscious guinea pigs in 100 degree Celsius water for three seconds. According to the researcher’s paper this produced “full skin-thickness burns” over 50 to 70 percent of the bodies.

People for Animal Rights is a member of a national coalition of 50 groups and individuals. The coalition, called Mobilization For Animals, is “dedicated to initiating direct action campaigns on behalf of animal rights.” The coalition will hold a national conference in Columbus Oct. 9-11.

The coalition claims that over 100 million animals die each year in laboratories throughout the world. A brochure published by the coalition said, “Animals used for experimentation are: burned, choked, poisoned, starved, irradiated, stressed, surgically mutilated, kept in solitude, deprived of sleep and kept in restraining devices for months on end.”

“People need to be shown exactly what is happening so they can weigh the pros and cons on their own. Most people are totally unaware of what is going on in research with animals. It has all been done behind closed doors,” Buccella said.

When asked if animals that are exterminated by the Humane Society and other animal shelters due to overcrowding, couldn’t be used for research instead, Buccella replied, “It would not be right to take animals that have been raised as pets (as most animals in shelters were) and who have learned to trust humans, and subject them to testing that often involves pain and suffering.”

The Franklin County Animal Shelter is required by Ohio law to provide animals to research companies that request them. It is the only animal shelter in the county which allows its animals to be used for test purposes.
Animal Research

U.S.D.A. regulates research, lacks control over procedures

By Tom Havener
Lantern staff writer  8-13-82

More than 20 million animals are used each year by 1,252 non-profit, commercial, military and federal government laboratories in the United States, according to a 1980 national survey of laboratory animal facilities.

In Ohio alone 69 institutions, mostly colleges, are conducting animal research.

Dr. Douglas R. Stauffer, area veterinarian for the U.S. Department of Agriculture, said research institutions that conduct activities involving the housing of animals are required by the Federal Animal Care Act to register with the U.S.D.A.

Different standards exist for each category of animals (dogs, cats, mice, primates, etc.) regarding the size of cage, lighting inside rooms where animals are housed, handling and storage of food and water and general sanitation conditions, Stauffer said.

Research institutions file annual reports on the total number of animals used as well as a separate list of animals used in experiments that involve painful procedures, he said. The latter group is further divided into the number of tests done with and without anesthesia, he added.

Stauffer said the U.S.D.A. has little direct control over what procedures are used in animal research. If inspections, however, reveal that certain procedures may be "questionable," the U.S.D.A. asks that researchers discuss their procedures with them.

Goss Laboratory, one of OSU's veterinary research facilities, was cited Dec. 31, 1981 for sanitation and maintenance deficiencies by the U.S.D.A.

Stauffer said the major problem was overcrowding. The overcrowding led to sanitation problems, Stauffer said, which OSU rectified by removing all the animals to alternate housing. Stauffer said OSU made structural repairs and cleaned the facility before returning the animals to Goss Laboratory.

As of July 30, when the latest inspection was made, Stauffer said Goss Laboratory met all standards and requirements.

The U.S.D.A. usually inspects each facility twice a year but may return as many as four times a year to a facility that has significant violations.

Gerry Bain, spokesperson for the Capitol Area Humane Society, said the local chapter acts as a communication link between researchers and animal welfare agencies. The society is trying to promote an intellectual awareness of the complex issues on both sides of the research question, she said.

Bain said the issues involved with current testing procedures can only be dealt with once both sides gain a clear understanding of each other's viewpoint.
OSU pays fine for kitten care

Ohio State University has agreed to pay $500 in civil penalties to settle a charge of improper care and treatment of kittens intended for laboratory use, according to the U.S. Department of Agriculture.

D. R. Stauffer, veterinarian in charge of the USDA's Animal and Plant Health Inspection Service office in Pickerington, said the charge was brought against university officials in December 1981. It involved the treatment of about 40 injured kittens.

Stauffer said the alleged violation occurred in June 1980 at Ohio State's Goss Hall research facility.

The kittens had lesions around their necks, and many had metal chains with identification tags imbedded in the flesh, the USDA said.
Jars full of history are mostly museum pieces

By David Lore
Dispatch Science Reporter

Is the jar specimen no longer worth preserving in biology and medicine?

Hundreds of carefully preserved animal tissue specimens, for example, now gather dust in storage in Goss Hall at Ohio State University while veterinary pathologists debate their future.

The glass and plastic jars and cases include some ornate containers from those days before style gave way to function. They date to the 1900s, although most were made during the 1950s and 1960s.

THEY MEMORIALIZE in formaldehyde a menagerie of species and diseases. The small animals are preserved whole while larger breeds are remembered by their suffering parts: a heart full of worms, a diseased kidney, a slice of brain stem.

But Charles Capen, chairman of veterinary pathobiology, says the most popular specimen in the collection is not from an animal.

It's from a man.

...And not from just any man, but from a veterinarian.

"The specimen is from a veterinarian who was kicked in the head by a horse and suffered a cerebral hemorrhage," Capen said.

"An autopsy was performed, and a piece of the damaged brain was saved, and for a number of years it was shown to vet students to demonstrate the potential danger in working with large animals."

TODAY THE preserved specimens are seldom used in teaching, he said.

They're a bother to make and a nuisance to store and maintain, and they tend to lose color and tone over time.

"We use some of them in smaller group demonstrations. But in large lecture classes, it's hard to pass one specimen around to 180 students. So projected visuals are more effective in large classroom settings," Capen said.

No new specimens have been made in the Veterinary College since the mid-1960s, and those that survive eventually may be organized into a museum.

Some are still valuable, since they show examples of rare diseases or conditions not depicted in the newer media, Capen said.

THE OSU Department of Anatomy keeps a few preserved specimens of human organs and tissue samples in a small museum in Graves Hall, department Chairman James King said.

"They've always been used, and they continue to be used. But with the new imaging techniques, the emphasis has shifted from those kind of specimens to images off the MRIs and CAT scanners," King said.

Still, there may be a revival of the old tissue specimens in high-tech form.

It's called "plastination," and King said his department has obtained a university grant to try the procedure this year. In this technique, the organ or tissue sample is preserved by infiltrating it with liquid plastic rather than by bottling it in liquid preservative.

The plastinated part can then be passed around, giving students a sense of the specimen's shape that can't be conveyed even by the most sophisticated visual.

This bird is preserved for posterity
Remodeling of research lab facility expected to be finished by Autumn

Lantern staff reports

A million-dollar upgrade to the veterinary college's animal research laboratory facility will be completed this fall, Vernon Carter, associate dean of the College of Veterinary Medicine said.

Carter said construction is currently behind schedule, but he hopes to have the project completed by the October target date.

Since the completion of the current facilities in 1971, the concept of what the college needs in the way of laboratory housing has changed, Carter said.

"Essentially what this (project) does is give us a more efficient use of space," Carter said.

The remodeling will allow the college to do things with the isolation of animals that it could not do before, Carter said.

He said the college is doing more work directed towards animals which need isolation, such as with immuno-suppressed animals.

Immuno-suppressed animals are animals that have diseases similar to AIDS, which affect the animal's immune system.

"You have to have an area where you can isolate them, and this will allow us to do those kinds of things," Carter said.

The project will take the three existing large rooms and turn them into smaller units that can house small animals, Carter said.

It will also turn some unused open space into storage, locker rooms and shower facilities, he said.

After the project is completed, an average room will have about 12 individual rooms where different types of small animals can be placed and observed, Carter said.
OHIO STATE TRUSTEES APPROVE RENOVATION CONTRACTS

COLUMBUS -- The Ohio State University Board of Trustees Friday (12/3) approved contracts totaling several million dollars for 28 construction and renovation projects at campuses and research farms across the state.

The largest project, the renovation of 3,800 square feet in Goss Laboratory, will involve creating a containment facility for retrovirus research. The building is part of the College of Veterinary Medicine.

The $877,000 state-funded project is to be completed by next November. Contracts were awarded to J&M Bennett, general, $177,900, and Knox Electrical Construction of Pickerington, electric, $98,500. Farber Corp. of Columbus received contracts for plumbing, $54,200, and heating, ventilating and air conditioning, $259,400.