



## Fact Sheet

### Research Animals and the Roles They Have Played

*(Some Examples)*

#### **Primates**

Polio vaccine  
In vitro fertilization  
Aging  
Alzheimer's disease  
AIDS  
Gum disease  
Rheumatoid Arthritis  
Discovery of the Rh factor  
Chemotherapy  
Chlorpromazine and other tranquilizers  
German Measles  
Measles  
Leprosy  
Genetic factors  
Cystic fibrosis

#### **Pigs**

Dermal tests: e.g. patches for travel sickness  
Plastic and reconstructive surgery  
Cardiovascular research: heart transplant, pacemaker, etc.  
Studies of stress  
Hardening of arteries – nutrition  
Organ transplant techniques  
Minimally invasive surgery techniques  
Laparoscopic surgical techniques  
Diabetes

#### **Sheep**

Research on human pregnancy  
Fetal alcohol syndrome  
Vaccine for anthrax  
Shunt for dialysis machine  
Joint reconstruction  
Organ transplant techniques

#### **Horses**

Diphtheria  
Tetanus (Lockjaw)

#### **Ferrets**

Influenza virus  
Reproductive research  
Canine distemper  
Toxicology research

#### **Chinchillas**

Hearing  
Vaccine for cholera  
Sleep research

#### **Guinea Pigs**

Vaccine for diphtheria  
Treatment for whooping cough  
Immune systems (antibodies)  
Tuberculosis, pneumonia, spinal meningitis and typhoid fever  
Development of lithium

#### **Hamsters**

Lyme disease: hopeful vaccine  
Diabetes

#### **Woodchucks**

Link between hepatitis B and human liver  
Cancer

#### **Mice**

Understand tumors and treatment of cancers  
Abnormal fetal development  
Organ transplants  
Cancer, heart disease, blood-clotting disorders  
Deafness, epilepsy, muscular dystrophy, Brain dysfunctions  
Genetic model  
How addictive drugs affect offspring  
Vaccines: whooping cough, yellow fever  
Penicillin and other broad-spectrum antibiotics  
Chemotherapy  
Antipsychotic and antidepressant drugs  
Monoclonal antibodies  
Gene therapy/replacement  
Breast cancer  
Cystic fibrosis  
Leukemia  
Multiple sclerosis  
ALS (Lou Gehrig's disease)

**Snakes**

Biological activity at the cell surface

**Rats**

Hardening of arteries

Arthritis

Diabetes

High blood pressure

Organ transplants

Penicillin and other broad-spectrum antibiotics

Chemotherapy

Chlorpromazine and other tranquilizers

Development of lithium

Antipsychotic and antidepressant drugs

Gene therapy/replacement

Breast cancer

**Fruit flies**

Breast cancer

Leukemia

**Armadillos**

Leprosy

**Monkfish**

Insulin (diabetes) hormone research

**Sea Urchins**

Cancer/cell cycle

**Rabbits**

Rabies vaccine

Eye and ear infections

Emphysema

Cancer

Diabetes

Eye surgery

Skin disorders

Cardiac catheterization techniques

Whooping Cough

Rheumatoid Arthritis

Penicillin and other broad-spectrum antibiotics

Polio vaccine

Chemotherapy

Chlorpromazine and other tranquilizers

Monoclonal antibodies

**Salamanders**

Heart attack research

**Cows**

Smallpox vaccine

Organ transplant techniques

**Cats**

Brain research (epilepsy)

AIDS (Leukemia)

Cataract surgery

Lupus

Deafness

Spinal cord injury

Diabetes

Glaucoma

Development of anticoagulants

**Dogs**

Study of behavior

Organ transplant techniques

Heart transplant

Open-heart surgery

Cardiac pacemaker

Kidney transplant

Aging

Artificial hips and joints

Diabetes/Discovery of Insulin

Rabies vaccine

Treatment for rickets

Cardiac catheterization

Development of anticoagulants

**Zebrafish**

Genetics

Studies in the causes of blindness, deafness and mental retardation

**Leeches**

Stimulate blood circulation in reattached fingers

Saliva contains antibiotics and possible anti-cancer agents

**Chickens**

Treatment for beriberi — a vitamin B deficiency that causes heart and nerve impairment

Tuberculosis, pneumonia, spinal meningitis and typhoid fever

Leukemia

**Marine sponges**

Human immune system

**Frogs**

Antibiotics in skin that may kill certain cancer cells

**Insects**

Fly - genetic research