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Fact Sheet  
Research Animals and the Roles they 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: patches for  
travel sickness,  
Plastic and reconstructive  
surgery  
Cardiovascular research:  
heart transplant,  
pacemaker  
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 live  
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)

### **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

### **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

### **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  
    techniques  
Development of  
    anticoagulants

### **Armadillos**

Leprosy

### **Frogs**

Antibiotics in skin that may  
    kill certain cancer cells

### **Salamanders**

Heart attack research

### **Snakes**

Biological activity at the  
    cell surface

### **Insects**

Fly - genetic research

### **Monkfish**

Insulin (diabetes) hormone  
    research

### **Sea Urchins**

Cancer/cell cycle

### **Cows**

Smallpox vaccine  
Organ transplant techniques

### **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