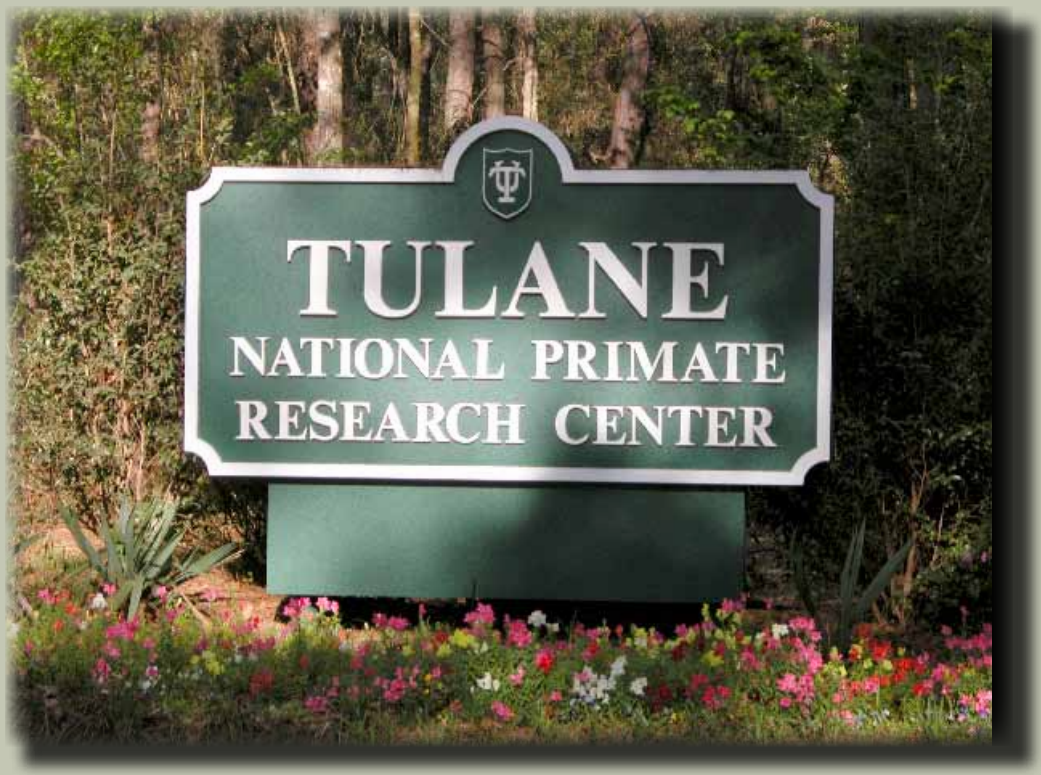
Tulane National Primate Research Center

General Information



Director

Andrew A. Lackner, DVM, PhD

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This brochure includes general information about the Tulane National Primate Research Center (TNPRC). Specific components are a brief overview about animal research in medicine, Director contact information, a listing of faculty by research division and their research interests, faculty editorial responsibilities, general definitions, other TNPRC informational brochures available, speaker bureau and tour contact information, contact information on the seven other National Primate Research Centers, and links to selected nonhuman primate web sites.

Animal Research in Medicine

Animal Research Helps People and Animals

Virtually everyone alive today has benefited from the medical advances made possible through animal research. Polio, smallpox, diphtheria, cholera and measles are no longer major threats to public health in the United States. Sophisticated diagnostic tests mean early treatment of cancer and heart disease. Advances in pharmaceuticals have given a new lease on life to tens of thousands of people with AIDS. New surgical techniques have opened the way for coronary bypasses, joint replacements and organ transplants. All of these advances have been made possible through animal research in medicine.

Biomedical research has enhanced the lives of our animal companions, too. Pets, livestock, wildlife and animals in zoos live longer, more comfortable and healthier lives as a result of animal research. Veterinarians can now treat diseases that once killed millions of animals every year. Vaccines for feline leukemia virus, rabies, distemper and parvovirus, as well as treatments for heart worm, cancer and hip dysplasia are now available because of animal research. Animal research has also been integral to the preservation of many endangered species.

Animal Research is Necessary

While scientists have developed many valuable non-animal models that are useful in some types of medical research and can supplement work with live animals, these methods cannot mirror the complicated processes that occur in a living system. Development of any new medicine requires testing in animals to determine if it is safe and effective. Federal law mandates that tests be conducted in animals before approval can be given for clinical trials involving people.

Animal Research is Humane

Responsible scientists know that good science and good animal care go hand-in-hand and would not tolerate cruel or inhumane treatment of any laboratory animals.

The U.S. Animal Welfare Act (AWA) sets strict standards of care and research for laboratory animals. Research facilities are registered with the U.S. Department of Agriculture (USDA) which has responsibility for enforcing the mandates of the AWA. Stringent regulations on animal care are also in place for institutions receiving federal funds. Each research facility is also required to have an Institutional Animal Care and Use Committee, which includes at least one outside member as well as a veterinarian. The committee scrutinizes research proposals to ensure that alternatives to animal use are considered and that all animals involved receive humane care. The vast majority of research institutions in the United States, including the TNPRC, voluntarily seek accreditation from the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC) in addition to complying with local, state and federal laws that regulate animal research.*

Director's Contact Information

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Division and Faculty Contact Information

Division of Bacteriology and Parasitology

Chair, Mario T. Philipp, PhD

Professor of Microbiology and Immunology

E-mail: TNPRC-BactPar@tulane.edu

Faculty	Appointment	Research Interests
Embers, Monica E. PhD	Instructor	Lyme disease, primate *Moraxella*, Brucellosis
Kaushal, Deepak PhD	Research Assistant Professor	tuberculosis, bioinformatics
Philipp, Mario T. PhD	Professor	Lyme disease, *Streptococcus pneumoniae*

Division of Collaborative Research

Chair, James L. Blanchard, DVM, PhD

Adjunct Professor of Medicine

E-mail: TNPRC-CollRes@tulane.edu

Faculty	Appointment	Research Interests
Aye, Pyone DVM,PhD	Research Assistant Professor	infectious diseases, AIDS
Blanchard, James L. DVM, PhD	Adjunct Professor	SIV/AIDS, nonhuman primate medicine

Division of Comparative Pathology

Chair, Ronald S. Veazey, DVM, PhD

Professor of Pathology

E-mail: TNPRC-ComPath@tulane.edu

Faculty	Appointment	Research Interests
Alvarez, Xavier PhD	Research Associate Professor	AIDS neuropathogenesis, immunology
Aye, Pyone DVM PhD	Research Assistant Professor	infectious diseases, HIV pathogenesis, immunology
Bouljihad, Mostafa T. DVM, PhD	Clinical Associate Professor	infectious and neoplastic diseases, comparative respiratory pathobiology
Didier, Peter DVM, PhD	Clinical Associate Professor	tuberculosis, West Nile Virus, microsporidiosis

Green, Linda C., PhD	Instructor	AIDS, opportunistic infections
Lackner, Andrew A. DVM, PhD	Professor	pathogenesis of AIDS, infectious diseases
Ling, Binhua MD, PhD	Research Assistant Professor	AIDS, infectious diseases
Liu, David Xianhong, BV SCI, PhD	Research Assistant Professor	infectious diseases and cancer
MacLean, Andrew PhD	Assistant Professor	AIDS neuropathogenesis, blood-brain barrier
Mohan, Mahesh DVM, MS, PhD	Instructor	AIDS pathogenesis/Enteropathy, Gastrointestinal Diseases, microRNAs
Pahar, Bapi DVM, PhD	Research Assistant Professor	AIDS immunology, infectious diseases
Veazey, Ronald S. DVM, PhD	Professor	AIDS pathogenesis, mucosal immunology
Wang, Xiaolei, PhD	Instructor	mucosal immunology, pathogenesis of pediatric AIDS

Division of Gene Therapy

Chair, Bruce A. Bunnell, PhD

Professor of Pharmacology

E-mail: TNPRC-Gene@tulane.edu

Faculty	Appointment	Research Interests
Bunnell, Bruce A. PhD	Professor	gene therapy, stem cell biology, Krabbe's disease

Division of Immunology

Chair, Marcelo J. Kuroda, MD, PhD

Associate Professor of Microbiology and Immunology

E-mail: TNPRC-Immun@tulane.edu

Faculty	Appointment	Research Interests
Kuroda, Marcelo J. MD, PhD	Associate Professor	AIDS and aging immunology, influenza

Division of Microbiology

Chair, Preston A. Marx, Jr., PhD

Professor of Tropical Medicine

E-mail: TNPRC-Micro@tulane.edu

Faculty	Appointment	Research Interests
Didier, Elizabeth S. PhD	Professor	microsporidiosis, emerging infection, immunology, aging
Marx, Preston A. PhD	Professor	AIDS pathogenesis and vaccine development, immunology, origins of HIV
Roy, Chad PhD	Research Assistant Professor	infectious disease aerobiology, bioaerosis, primate models of disease, aerosol science
Sestak, Karol DVM, PhD	Associate Professor	diseases of the intestinal tract, mucosal vaccines
Traina-Dorge, Vicki PhD	Research Associate Professor	Human and Simian T cell Leukemia Viruses , Varicella Virus
Voss, Thomas G. PhD	Assistant Professor	SARS, influenza

Division of Veterinary Medicine

Chair, Rudolf P. Bohm, Jr., DVM

Associate Director for Veterinary Resources,

Professor of Clinical Medicine

E-mail: TNPRC-VetMed@tulane.edu

Faculty	Appointment	Research Interests
Baker, Kate PhD	Research Professor	psychological wellbeing, nonhuman primate behavior
Blanchard, James L. DVM, PhD	Adjunct Professor	SIV/AIDS, veterinary medicine
Bohm Jr., Rudolf P. DVM	Professor	surgical model development, veterinary medicine
Doyle, Lara A. DVM	Assistant Professor	veterinary medicine
Dufour, Jason DVM	Assistant Professor	veterinary medicine
Gilbert, Margaret H. DVM	Veterinarian	veterinary medicine, nonhuman primate social behavior
Grasperge, Brooke F. DVM	Veterinarian	veterinary medicine
Kubisch, Michael PhD	Adjunct Assistant Professor	assisted reproductive technologies, genetics, population genetics
Ratterree, Marion DVM	Assistant Professor	assisted reproductive technologies, AIDS
Russell-Lodrigue, Kasi E. DVM, PhD	Assistant Professor	veterinary medicine, infectious disease model development

Faculty Editorial Responsibilities

Faculty	Journal	Type
James L. Blanchard, DVM, PhD	Journal of Medical Primatology	Member-Editorial Board
Rudolf P. Bohm, Jr., DVM	Journal of Medical Primatology	Member-Editorial Board
Bruce A. Bunnell, PhD	Journal of Molecular Therapy	Member-Editorial Board
Michael Kubisch PhD	Reproduction, Fertility and Development	Associate Editor
Andrew A. Lackner, DVM, PhD	AIDS Research and Human Retroviruses	Member-Editorial Board
	American Journal of Pathology	Associate Editor
Preston A. Marx, PhD	Journal of Medical Primatology	Editor-in -Chief
Mario T. Philipp, PhD	Infection and Immunity	Member-Editorial Board
	Journal of Spirochetal and Tick-Borne Diseases	Member-Editorial Board
	Revista Argentina de Microbiología	Foreign Member Editorial Board
	Revista Latinoamericana de Microbiología	Foreign Member Editorial Board
Ronald S. Veazey, DVM, PhD	Journal of Medical Primatology	Member-Editorial Board
	AIDS Research and Human Retroviruses	Member-Editorial Board

Informational Brochures Available

Alexius House - The Tulane National Primate Research Center (TNPRC) is situated on 500 acres of land purchased from the Alexius family in 1962. The property represented a significant portion of land that is still known as Alexiusville. The Alexius House, named after Guido Centio Alexius, dates back to the early 1800's. The House was home to several generations of the Alexius family and is the only original building that remains on the property that houses the TNPRC. The Tulane University School of Architecture is currently doing a preservation study of the House, and the long-term plan is to restore it and use it as a visitors' center or other appropriate way to support the TNPRC. This brochure provides a brief history of the Alexius House.

Construction Updates - The Tulane National Primate Research Center currently has approximately $45 million dollars in funded construction and renovation projects that will be executed over the next several years. Funding for these projects is derived from competitive construction awards from the National Institutes of Health (NIH), as well as from matching funds from Tulane University. This brochure provides an overview of the construction projects and their status.

Diseases We Investigate - Research at the Tulane National Primate Research Center focuses on human health problems that require the use of nonhuman primates to understand the disease. Our research often promotes or results in the development of diagnostics, therapeutics, and preventive strategies such as vaccines. The primary diseases and disease agents we study are: AIDS and HIV Infection, Human T-cell Leukemia Virus I, Krabbe's Disease, Lyme Disease, Malaria, Microsporidiosis, Respiratory Syncytial Virus, Rotavirus, Tuberculosis, Varicella Zoster Virus, and West Nile Virus. This brochure provides brief descriptions of these diseases and our research efforts to combat them.

Educational Opportunities - One of the primary objectives of the Tulane National Primate Research Center (TNPRC) is to provide training for undergraduates and graduate students, veterinarians, postdoctoral fellows, veterinary students and visiting scientists. This brochure outlines the educational opportunities we have to offer these students and researchers.

Frequently Asked Questions - The nature of our research and the unusual animals we work with at the TNPRC generally prompt a variety of questions. This brochure provides answers to questions we are asked most frequently on these subjects.

History: Mission Statement, Milestones, Discoveries - This brochure describes the mission that guides the Tulane National Primate Research Center programs and illustrates examples of significant milestones and discoveries of the past forty years. These discoveries have benefited the health and welfare of both humans and animals.

Nonhuman Primates - Nonhuman primates are a widely diverse group of animals. For a variety of scientific and historical reasons, the Tulane National Primate Research Center houses the following nine species of nonhuman primates for research use: baboon, cynomolgus macaque, green monkey, mangabey monkey (sooty and white-crowned), patas monkey, pigtailed macaque, rhesus macaque and squirrel monkey. The rhesus macaque of Indian origin is the most widely used of these species. This brochure provides brief descriptions of each of the species of nonhuman primates at the Tulane National Primate Research Center.

Regional Biosafety Laboratory - The Tulane Regional Biosafety Laboratory being built at The Tulane National Primate Research Center is a biosafety level three (BSL-3) facility. Research conducted in the facility will focus on the development of treatments, vaccines and diagnostics for emerging infectious diseases that occur naturally, such as Severe Acute Respiratory Syndrome (SARS) and against biological agents that have the potential for misuse for terrorism. The overall goal of research associated with this facility is to protect the health and safety of our community and the nation. This brochure provides information on what Tulane's Regional Biosafety Laboratory will be and perhaps more importantly what it will not be.

Research Programs - The Tulane National Primate Research Center is involved in a variety of important multidisciplinary projects focusing on areas of biomedical research with high priority concerns for human health. This brochure, which is intended for the interested researcher, scientist or investigator, provides information on those research programs and projects. The functions of each research program and project are discussed within the parameters of each division's research, research resources and educational and training opportunities. You will note that many of the Research Programs are collaborative involving more than a single research division.

Important Definitions

Animal Rights - A philosophical view that considers animals as morally equivalent to humans and rejects the use of animals for any reason: for clothing, food, entertainment, sport, companionship, transportation, rescue work, or biomedical research.

Animal Welfare - The responsibility we have to treat animals with compassion and to provide them with ethical care.

Bacteriology - The study of bacteria.

Experimental Design - An experimental design describes how an experiment is performed to address a particular question. The design will encompass a variety of standardized experimental methods in unique and creative ways to address previously unanswered questions.

Experimental Methods - Experimental methods are proven techniques used as tools to address a particular research question. These techniques are standardized and are reproducible by different laboratories.

Gene Therapy - An approach to treat, cure, or prevent disease by altering or repairing defective genes.

Immunology - The study of the immune system and the mechanisms it uses to protect the body from abnormal or foreign substances, or organisms.

Infectious Disease - A disease that can be transmitted from person to person or from organism to organism and is caused by a microbial agent or prion.

Microbiology - The study of microorganisms, bacteria, viruses etc. and their effects on other living organisms.

Parasite - An organism that lives in or on the living tissue of a host organism at the expense of that host.

Parasitology - The study of parasites, their hosts, and the relationships between them.

Pathology - The study of disease, its causes, processes, development, and consequences.

Virology - The study of viruses.

Speaker Bureau Contact Information

Faculty and staff members at the Tulane National Primate Research Center have many areas of individual expertise relating to the general field of biomedical research. For specific speaker and subject matter information about their valuable research and for information about this national resource, please visit our web site at www.TNPRC.Tulane.edu.

Tour Contact Information

The faculty and staff members at the Tulane National Primate Research Center take great pride in the Center's role and considerable accomplishments in the field of biomedical research. Group tours of this unique facility are by appointment only. Please visit our web site at www.TNPRC.Tulane.edu for details.

National Primate Research Center Contact Information

California National Primate Research Center
www.CNPRC.UCDAVIS.EDU

New England National Primate Research Center
www.HMS.HARVARD.EDU/NERPRC/

Oregon National Primate Research Center
www.HTTP://ONPRC.OH.EDU

Southwest National Primate Research Center
www.SNPRC.ORG

Washington National Primate Research Center
www.WANPRC.ORG/WaNPRC/

Wisconsin National Primate Research Center
www.PRIMATE.WISC.EDU

Yerkes National Primate Research Center
www.YERKES.EMORY.EDU

Selected Nonhuman Primate Web Sites

AALAS-American Association for Laboratory Animal Science
www.aalas.org/

ACLAM- American College of Laboratory Animal Medicine
www.aclam.org/

ASLAP-American Society of Laboratory Animal Practitioners
www.aslap.org/

AAALAC-Association for the Assessment and Accreditation of Laboratory Animal Care International
www.aaalac.org/

AMP-Americans for Medical Progress
www.amprogress.org

APV-Association of Primate Veterinarians
www.primatevets.org/contact.asp

FASWB-Federation of American Societies for Experimental Biology
opa.faseb.org/pages/PublicEducators/animalresearch.htm

FBR-Foundation for Biomedical Research
www.fbresearch.org

FBRSC-Foundation for Biomedical Research Survivors Campaign
www.fbresearch.org/survivors/

IACUC-Institutional Animal Care & Use Committee
www.som.tulane.edu/iacuc/

IBC-Institutional Bio Safety Committee
www.ibc.tulane.edu/

K4R-Kids 4 Research
www.kids4research.org/

OLAW-Office of Laboratory Animal Welfare
www.grants.nih.gov/grants/olaw/olaw.htm

PIN-Primate Info Net
www.primate.wisc.edu/pin

RDS-Research Defence Society--Understanding Animal Research in Medicine
www.rds-net.org.uk

R!A-Research!America – An Alliance for Discoveries in Health
www.researchamerica.org/

USDA APHIS- United States Department of Agriculture Animal and Plant Health Inspection Service
www.aphis.usda.gov/

*Source: Adapted from Americans for Medical Progress, www.amprogress.org.

Tulane University

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