

LABORATORY PRIMATE NEWSLETTER

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Edited by

Allan M. Schrier

with the assistance of

Fred Stollnitz

Consulting Editor: Morris L. Povar

Psychology Department  
Brown University  
Providence, Rhode Island

POLICY STATEMENT  
(Revised January, 1964)

The primary purpose of the Newsletter is to provide information on maintenance and procurement of nonhuman primates for laboratory studies. A secondary purpose is dissemination of general information about the world of primate research. Examples of the kind of practical information that would be useful are as follows: new drugs; novel aspects of cage design; new products; evaluations of various products; references to or short summaries of articles of general interest; experiences in connection with the procurement of monkeys. The Newsletter will also publish offers to exchange monkeys (for example, older monkeys for young or infant monkeys) and requests for monkeys with special characteristics (for example, good breeders or pregnant females). If someone has a special problem, he might want to request help through the Newsletter.

As a rule, only research articles or summaries which have some practical implications or which provide general information likely to be of interest to investigators in a variety of areas of primate research will be accepted for inclusion in the Newsletter. Descriptions of current research projects will also be welcome. It should be kept in mind that the Newsletter is not a formal publication and it is not likely to be obtainable in libraries. Therefore, citation of Newsletter notes or articles in publications is not recommended.

Information for the Newsletter will be welcome from anyone in any research area who is using monkeys or apes. The Newsletter will appear quarterly and will continue so long as people are interested enough to contribute items of information. The mailing list is open to anyone expressing an interest. There is no subscription charge. However, only new issues and back issues for the current year will be mailed to new subscribers free of charge. Volume 1 of the Newsletter may be purchased for \$2.00 and Volume 2 for \$1.00. (Please make checks payable to Brown University.)

All correspondence concerning the Newsletter should be addressed to:  
Allan M. Schrier  
Psychology Department  
Brown University  
Providence, Rhode Island 02912

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## Acknowledgments

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## ARTERIAL BLOOD PRESSURE IN MACACA SPECIOSA

Carl C. Smith and Daniel Crout  
The Christ Hospital Institute of Medical Research  
Cincinnati, Ohio 45219

Recently Kling and Orbach (1963) reported that stump-tailed monkeys (Macaca speciosa), in contrast to rhesus monkeys (M. mulatta), were very docile and when handled made no attempt to bite. These authors emphasized in particular their usefulness in neuropsychological studies. Since then a number of investigators have experimented with this species. Opportunity was provided recently to obtain blood pressure measurements on a group of stump-tailed macaques.<sup>1</sup>

The measurements reported here were made on 12 unanesthetized young adult males and females, probably all under 4 years of age. The blood pressures were determined by the indirect method of Smith and Ansevin (1957), using both "cloth" and "metal" cuffs. The animals were restrained gently during the measurements in the same manner as rhesus monkeys. The animals were relatively quiet and showed none of the hostility which one observes when rhesus monkeys are caught and restrained by technicians with whom the animals are unfamiliar. Pulse and blood pressure readings for the individual animals are recorded in the table on the following page.

The range of blood pressure readings, using the cloth (newborn) cuff, is slightly lower than that reported by Smith and Ansevin for trained rhesus monkeys, but the metal cuff readings for stump-tailed and rhesus monkeys are not significantly different. The average cardiac rate of 208 per minute is very similar to the average obtained in a group of trained rhesus monkeys. Although no quantitative measurements of head girth were made, stump-tailed monkeys appeared to have relatively larger heads than rhesus monkeys of comparable weight. Although the larger head makes manual restraint somewhat more tiring, the intrinsic docility of M. speciosa more than compensates for this slight disadvantage.

Although these blood pressure measurements were obtained on monkeys which were conditioned<sup>2</sup> but untrained, the ease with which they were obtained and the consistency and stability of the pulse rates suggest that the figures are probably representative of the average values one would find for a group of trained animals.

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<sup>1</sup>The authors are grateful to Dr. Donald R. Meyer, Department of Psychology, The Ohio State University, for providing the opportunity to study his colony of stump-tailed monkeys.

<sup>2</sup>The animals had been conditioned for 3 months under the supervision of Robert Henthorne, D.V.M. During this period no clinical symptoms of disease were noted and the animals appeared to be less prone than the rhesus to develop intestinal upsets initially.

# References

- Kling, A. and Orbach, J. The stump-tailed macaque: a promising laboratory primate. Science, 1963, 139, 45-46.
- Smith, C. C. and Ansevin, A. Blood pressure of the normal rhesus monkey. Proc. Soc. Exp. Biol. Med., 1957, 96, 428-432.

## INDIRECT BLOOD PRESSURE READINGS AND CARDIAC RATES OF STUMP-TAILED MONKEYS

Animal No.	Blood Pressure - Mm. Hg		Cardiac Rate
	Cloth Cuff	Metal Cuff	
1	135/110	115/85	228
2	140/115	120/85	196
3	165/140	110/85	208
4	140/100	120/80	208
5	145/115	125/95	212
6	135/100	120/95	228
7	135/110	125/95	188
8	110/90	95/70	196
9	160/125	135/115	212
10	135/110	115/90	184
11	130/100	105/75	204
12	145/120	120/95	220
Range:	110/90 - 165/140	95/70 - 135/115	184 - 228

ON THE ADMINISTRATION OF GAMMA GLOBULIN

TO PRIMATE LABORATORY PERSONNEL

Joe R. Held<sup>1</sup>  
Laboratory of Parasite Chemotherapy  
NIAID, Cytology Section  
Chamblee, Georgia

In the April, 1964, issue of this Newsletter there is a note from Dr. Frederick H. Rohles, Jr., entitled "Protective Measures in Primate Laboratory" in which he quotes a report by Pegram and Bogo. Dr. Rohles' note was submitted in response to an item in the January, 1964, issue of this Newsletter concerning a report that I gave at the 100th meeting of the American Veterinary Medical Association last year on "The Public Health Implications of Nonhuman Primates in the Transmission of Hepatitis to Man."<sup>2</sup>

In my report, I cited a personal communication from Dr. J. W. Mosley (Chief, Hepatitis Surveillance Unit, U. S. Public Health Service, Communicable Disease Center) which recommends "that persons having contact with newly imported chimpanzees and who have no previous history of hepatitis be given a dose of 2.0 ml. of immune globulin at the time they begin this contact (*italics mine*). Further studies are needed to determine if a 2nd dose 6 months later is necessary."

According to the quotations, Pegram and Bogo recommend that "Each individual, whether he works directly with the animals or not, is inoculated with 10 cc of gamma globulin every 6 months..."

Their report lists other rules to be followed and concludes, "With these rules constantly being brought to the attention of the laboratory technician and an insistence that they be rigorously followed, there have been no cases of infectious hepatitis in the Comparative Psychology Branch."

While I am wholly in accord with their general rules of good hygienic practice, such as wearing protective clothing and washing one's hands after handling animals, I do question their rule regarding the administration of 10 cc of gamma globulin to each individual, every six months, whether or not he works directly with the animals.

There should be a sound rationale for administering immune globulin to any individual. In the face of an actual exposure to the virus, there is ample evidence that immune globulin will protect a substantial portion

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<sup>1</sup> Beginning August 1. The opinions expressed in this note are not necessarily those of the U. S. Public Health Service.

<sup>2</sup> This report has subsequently been published in the Scientific Proceedings 100th Annual Meeting AVMA.

of susceptible individuals from developing the disease clinically. As far as handlers of nonhuman primates are concerned, there is now available no evidence to suggest that other than newly imported animals serve as a source of infection. Hillis, in his original report on infectious hepatitis among chimpanzee handlers at Holloman Air Force Base (Amer. J. Hyg., 1961, 73, 316-328), reported that "All of these individuals (cases) have handled newly arrived chimpanzees intimately. Their disease has appeared either 4 to 6 weeks after the collection of animals from Africa or Florida or within 45 days after the arrival of the new animals to the colony." All of these cases were in the Veterinary Services Branch, and reportedly it was only the personnel in the V.S.B. who had contact with the newly arrived animals. He also stated, "Further, no hepatitis has developed among personnel having contacts with the animals in the established colony, ...." It is my understanding that Hillis' studies were conducted before the Comparative Psychology Branch began the administration of gamma globulin to their personnel. Thus, to infer that this procedure is now preventing hepatitis due to chimpanzee contact among these persons is incorrect since all of the evidence now available would suggest that their risk would have been no higher than for the general population.

The question of dosage with immune globulin is involved and complex, but many experts concerned with the prevention of human hepatitis believe that the recommended dose of 2.0 ml for adults is adequate to prevent the occurrence of hepatitis in 80 to 95 per cent of persons to whom it is administered prior to the onset of symptoms.

Thus, if any readers are considering establishment of procedures for the administration of immune globulin to persons associated with nonhuman primates, consideration should be given to Mosley's recommendations, which are based on a sound rationale evolved from a detailed knowledge of presently available information about human hepatitis, including the role which nonhuman primates might play as a source of infection for this disease.

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#### ANNUAL MEETING OF THE ANIMAL CARE PANEL

The 15th annual meeting of the Animal Care Panel will be held at the New York Hilton Hotel September 21-25, 1964. During Monday and Tuesday, September 21 and 22, there will be seminar sessions consisting of organized round-table discussions on laboratory animal subjects. The scientific sessions will be held September 23-25 with the Thursday afternoon session (September 24) a live, closed-circuit television demonstration of laboratory animal care techniques and methods.

## CHIMPANZEE-ASSOCIATED HEPATITIS--1963<sup>1</sup>

During 1963, 13 cases of infectious hepatitis in the United States traced epidemiologically to exposure to nonhuman primates were reported to the Hepatitis Surveillance Unit, CDC. Three outbreaks were responsible for 11 of these 13 cases (see table below).

The first outbreak (cases 1-5) occurred at a university in Oklahoma, according to F. R. Hassler, M.D., Chief, Communicable Disease Control and Laboratory Services, Oklahoma State Department of Health. In early November, 2 chimpanzees were shipped from Sierra Leone via the West Coast to a psychologist; they were housed in animal quarters adjacent to his home. Because one of the animals had a severe respiratory infection, contact with humans was limited to those necessarily involved in the care of animals. Between December 26, 1962, and January 17, 1963, 5 of the 7 persons who did have close contact with the chimpanzees developed hepatitis. One of the psychologists, who remained well, was believed to have had icteric hepatitis at age 12. Investigators were unable to trace these cases to any other possible common source.

The second outbreak (cases 6-8) involved 3 of 26 animal handlers and veterinarians at a U.S. Army Base. Two importers shipped a total of 26 chimpanzees to the base during March. In late April and early May, 2 officers and 1 enlisted man, all closely involved in the care of these animals, developed infectious hepatitis. No other common source could be found to account for this outbreak.

Case 9 occurred 5-1/2 months later at the same Army base, in an animal caretaker who began work in July, and was not exposed to any of the animals responsible for the earlier outbreak. A new shipment of chimpanzees had arrived in August; this man was the only one of 10 individuals exposed who developed hepatitis. Some of these same workers, however, were exposed to the earlier shipment and had received immune globulin injections in May.

Case 10 was a young New Yorker who worked for the importer supplying chimpanzees to the above Army base. Although he regularly handled chimpanzees, he began work in April, well after the initial shipments had been made. Because of hepatitis he stopped work in early June, before the animals shipped in August to the Army base would have arrived at the importing house.

The last outbreak (cases 11-13) occurred at an Air Force base where chimpanzees are used in psychological and space research. Case 11 had been hospitalized in November, 1961, because of an elevated SGOT which

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<sup>1</sup>From Morbidity and Mortality Weekly Report, 1964, 13, 174.  
(Prepared by Communicable Disease Center, U.S.P.H.S., Atlanta, Georgia.)



was found during a survey of all veterinary personnel, prompted by the occurrence of several cases of chimpanzee-associated hepatitis at that time. His second illness, in 1963, was severe and prolonged. Although 7 separate shipments of young chimpanzees were made to this institution during early 1963, the 3 cases were compatible with exposure to a single shipment in May.

Since the original report by Hillis<sup>2</sup> in 1961, in which 11 of 21 animal handlers and veterinarians developed hepatitis following exposure to recently imported chimpanzees, an additional 76 cases of hepatitis occurring after exposure to these and other nonhuman primates have been collected through the cooperation of State health departments and the Division of Foreign Quarantine, U.S.P.H.S.

The repetitive occurrence of these outbreaks lends credence to the idea that, under the proper circumstances, certain species of newly-imported primates can transmit hepatitis to humans. No instances are known of such transmission involving animals which had been in the United States for longer than 6 months.

(Reported by Hepatitis Surveillance Unit, CDC.)

<sup>2</sup>Hillis, William D. An outbreak of infectious hepatitis among chimpanzee handlers at a U.S. Air Force Base. Am. J. Hyg., 1961, 73, 316.

Case No.	Place	Age	Sex	Occupation	Icterus	Days from Arrival of Chimp to Onset
1	Oklahoma	36	F	Psychologist's wife	Yes	59
2	Oklahoma	10	F	Psychologist's daughter	No	60-70
3	Oklahoma	11	M	Psychologist's son	No	60-70
4	Oklahoma	47	F	Psychologist	Yes	54
5	Oklahoma	31	M	Handy Man	Yes	49
6	U.S. Army Base	24	M	Handler	Yes	29 or 53
7	U.S. Army Base	26	M	Pathologist	Yes	31 or 55
8	U.S. Army Base	27	M	Veterinarian	Yes	15 or 39
9	U.S. Army Base	25	M	Handler	Yes	63
10	N.Y. Importer	15	M	Handler	Yes	55
11	U.S. Air Force Base	24	M	Handler	Yes	26
12	U.S. Air Force Base	26	M	Veterinarian	No	13 or 58
13	U.S. Air Force Base	27	M	Handler	No	50-60

## TUBERCULOSIS TRANSMISSION IN MACACA NEMESTRINA

Robert W. Doty and Edward T. Greenstein  
Center for Brain Research  
The University of Rochester

On December 8, 1963, fifteen Macaca nemestrina were received from a dealer and placed in a compound. The space provided was about 2 x 4 meters with tile-painted concrete walls and floor, and three stainless steel perches. The area was hosed daily with high-pressure hot water. The fifteen animals had been purchased as tuberculin-tested negative, and "conditioned" for several weeks by the dealer. On December 9, 1963, eight days after we had cancelled the order, another dealer supplied us with eight more of these monkeys directly from Bangkok with a medical certificate stating solely that they did not have yellow fever. One of these animals appeared very ill on arrival and was segregated from the group. The other seven were placed in the compound, with the first group, because there was no other place to keep them.

On December 11, 1963, the sick animal died. Another of the Bangkok group died December 30, and a third on January 6. The third was autopsied and red lesions were found in the mouth. The lung was spotted with hard rock-like nodules.

Remaining animals of both groups were then given intrapalpebral tuberculin. Three strong positive, two weak positive and one questionable reaction were observed in the group from Bangkok. At this time all of the "conditioned" animals were negative. On January 9 and 14 those animals giving a strong positive reaction were sacrificed, and pathological and bacteriological studies confirmed the diagnosis of tuberculosis. On January 20, the seventh Bangkok animal was autopsied, and he, too, had TB. A test of the "conditioned" group at this time revealed the first positive reactor to tuberculin. In the next two days it was necessary to sacrifice seven animals in this group. Autopsies confirmed the diagnosis in several instances. Those monkeys still remaining were placed on 50 mg (IM) isoniazid daily for 3 weeks. At the end of that period all animals were negative. They all appear in good health at the time of this writing.

A cursory review of the literature did not give a specific time course for TB following exposure. Assuming that all the animals in the "conditioned" group were first exposed to tuberculosis by the Bangkok group, it took approximately 40 days for the first reactor to appear under rather crowded colony conditions.

One reason for more drastic action not being instituted earlier was that all animals in these laboratories are kept on a diet of Purina chow to which isoniazid (20.3 mg/kg of chow) had been added at the factory. Since no difficulty with tuberculosis had been experienced during the past several years following the introduction of isoniazid in the daily diet of the animals, it was believed that the dosage was sufficient to control the disease.

## ON THE IDENTIFICATION OF MONKEYS<sup>1</sup>

W. C. Osman Hill  
Yerkes Regional Primate Research Center  
Emory University

With regard to the recent notes in this Newsletter on the naming of monkeys,<sup>1</sup> I must say that I hesitate to accept Fooden's relegation of the crab-eater to subspecific status as a race of the rhesus (Science, 1964, 143, 363) for the following reasons:

To begin with, his evidence is very flimsy, but such as it is, would, I suppose, technically demand the conclusions which he has drawn. Whether strict adherence to such technicality would be advantageous or more conducive to confusion is another matter. The evidence rests on three museum skins from an area where the ranges of mulatta and fascicularis are presumed to meet and concerns two morphological features only, both of them known to be unreliable in systematic studies, viz. coat colour and tail length. It should be pointed out that rhesus and crab-eaters differ in far more than these two features, not only morphologically, but particularly in behaviour, voice and other physiological and psychological attributes.

The three intermediates in question are not known to be representatives of a whole local population and are, in all probability, merely the result of chance hybridization between members of bands of the two species that happen temporarily to join up, as monkey bands (even of different genera) commonly do. We know that captive animals often hybridize, not only members of different species within a genus, but even intergeneric crosses have occurred. This would not entitle us to infer that, for example, the rhesus and the drill are conspecific. Any many similar examples could be quoted from other mammalian groups. Besides, what happens in captivity can occur in the wild only in very exceptional cases.

A parallel would be the fact that where their ranges meet, the European Brown Hare (Lepus europaeus), and the Mountain Hare (Lepus timidus) have been known to interbreed. Yet no zoologist would think of referring them to the same species, because for the most part in nature each has its own ecological situation, and this, among other factors normally prevents gene-flow.

I do not see that the rhesus-crab-eater intermediates can fall into any different category, and for the sake of clearness, they are best labelled as separate species, each with its own geographical variants. After all, the purpose of taxonomy is to give us labels wherewith to recognize our material clearly and distinctly, and over-enthusiastic lumping leads to nought but confusion, and in the present instance, I am sure, to consternation among those that have based their work on these animals.

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<sup>1</sup>Editor's Notes, January, 1964, and On the Identification and Naming of 'Cynomolgus' and Other Monkeys, April, 1964.

A useful commentary on the question of splitting versus lumping has recently been published by Khajuria (Science and Culture, 1963, 29, 256-257) which, though the subject is treated from the point of view of the higher categories (generic and above), the same principles seem to hold.

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#### A PERCH FOR SQUIRREL MONKEYS

In the process of starting a colony of squirrel monkeys, we have found that a wooden dowel,  $3/4$  to 1 inch in diameter, makes a highly acceptable perch. In cages which are 19 in. high, 15 in. deep, and 12 in. wide, the dowels are mounted from side to side near the center so that the animals can sit upright without hitting the roof or can walk underneath without difficulty. The dowels are cut to a length which is just greater than the width of the cages and are wedged against the sides tightly enough to prevent rotation. A nail, driven off-center into each end of a dowel and extending outwards about  $1/4$  inch, provides a hook which prevents downward movement and which further counteracts rotation. The firmness-of-mounting variable appears to be important, because our animals prefer the present perches to dowels that can revolve and to dowels suspended like a trapeze from the roof of the cage. We estimate that the monkeys spend about 90 per cent of their time on these perches, and therefore we think, at the risk of being nonobjective, that they enjoy them.

Robert S. Feldman  
Kenneth F. Green  
Psychology Department  
University of Massachusetts  
Amherst, Massachusetts

## CONFERENCE ON MARMOSETS

A group of persons, most of whom were currently working with marmosets, met at the Dental Branch of the University of Texas at the end of January 1964. The meeting was organized by Friedrich Deinhardt, and Barnet Levy was host.

The conference program was arranged informally so that time was available for open discussion of the problems encountered in the laboratory maintenance of marmosets and for a full exchange of ideas and experiences. Subjects discussed on the first day of the meeting and the speakers introducing each subject were:

Taxonomy and Geographic Distribution; Philip Hershkovitz, Chicago Natural History Museum.

General Animal Husbandry; Suzanne Hampton, Tulane University, and Jean Deinhardt, Presbyterian-St. Luke's Hospital, Chicago.

Commercial Sources of Marmosets, Parasites of Marmosets; Robert Cooper, San Diego Zoological Garden.

Breeding, Biochemical Values & Liver Function Tests; Barnet Levy, University of Texas.

Hematological Values; Gengozian, Oak Ridge Institute of Nuclear Studies.

Blood Groups; J. Moor-Jankowski, National Institutes of Health.

Bacteriology and Virology; Friedrich Deinhardt, Presbyterian-St. Luke's Hospital, Chicago.

Treatment of Parasitic Infections of Marmosets; John Hampton, Tulane University.

On the second day, experimental studies using laboratory-maintained marmosets were presented by Deinhardt, Gengozian, J. Hampton, Levy, Melnick (University of Texas), Edwin Mirand (Roswell Park Memorial Institute), and Kurt Benirschke (Dartmouth Medical School).

The consensus of opinion at the end of the meeting was that marmosets would become invaluable as laboratory primates. Their small size, their relatively easy demand on animal caretaking, and their ability to breed successfully in captivity make them strong candidates for choice of laboratory primates in the future.

Friedrich Deinhardt  
Department of Microbiology  
Presbyterian-St. Luke's Hospital  
Chicago, Illinois

## NEW PRODUCTS AND SERVICES

We have found it useful to coat the flush pans in the monkey cages in the Brown University Primate Behavior Laboratory with "Slipicone" (Dow Corning). Slipicone is a "heat-stable, non-toxic silicone release agent." It is used in the food industry wherever adhesion of material is a problem. It helps prevent the formation of the hard, whitish urate deposits usually seen on cage pans and in colony-room gutters. It facilitates the flushing of the cage pans by preventing the sticking of feces to the metal. At the San Diego Zoo, entire concrete and metal animal pens have been coated with Slipicone for similar reasons. It is available in aerosol spray form or in bulk in the form of petroleum jelly. In the latter form, an appropriate solvent must be added before use.

Allan M. Schrier

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## REQUEST FOR INFORMATION ON TB

It is customary in a number of laboratories and with animal dealers to tuberculin-test squirrel monkeys along with other primates, but I have not heard of the existence of tuberculosis or a positive tuberculin reaction in squirrel monkeys. I wonder if any readers of this Newsletter have definite knowledge that squirrel monkeys are, or are not, susceptible to tuberculosis? We are trying to reduce squirrel-monkey care to its simplest and would be glad to omit the tuberculin test if it is in fact a useless ritual.

Thomas H. Clewe  
Department of Obstetrics & Gynecology  
School of Medicine  
Vanderbilt University  
Nashville, Tennessee 37203

## MORE TARIFFS ON MONKEYS AND APES

Sierra Leone, in West Africa, has been one of the most reliable sources of monkeys and chimpanzees. Recently we came across a copy of a budget speech by the Minister of Finance of Sierra Leone. [The copy reads as follows:]

### BUDGET SPEECH

delivered by

The Honourable A. M. Margai, Minister of Finance

on Wednesday, 25th March, 1964 in the  
Sierra Leone House of Representatives.

76. There is a flourishing trade in wild animals which are caught and exported out of this country. These range from elephants to monkeys and birds. Of these animals, 3,799, 4,303 and 4,383 were exported in 1961, 1962 and 1963, respectively. No duty is paid at present. It may interest Members to know that export duty is paid in some West African territories on wild animals. It has therefore been decided that export duty should be imposed and the necessary amendment made to the Third Schedule of the Customs Tariff Act. This measure should also act as a protection against the possible extinction of wild life in the country. The rates imposed are as follows:

- (a) Large animals, including elephants,  
leopards, etc..... £10 each
- (b) Chimpanzees..... £10 each
- (c) Monkeys..... £ 3 each
- (d) Other Animals and Reptiles..... £ 2 each
- (e) Birds..... £ 1 each

From other information from West Africa, I can also advise that it is quite likely that about six more of these newly independent African nations will shortly follow suit by adopting some sort of unified set of export regulations and duty charges for live animals.

Stanford Gluck  
Asiatic Animal Imports, Inc.  
P. O. Box 8125, International Airport  
San Francisco 28, California

## RECENT BOOKS AND ARTICLES

### Books

- A stereotaxic atlas of the chimpanzee brain. DeLucchi, M. R.,  
Dennis, B. J., and Adey, W. R. Berkeley: Univer. California  
Press, 1964.

### Disease

- Protection of rhesus monkeys against monkeypox. McConnell, S.  
et al. (Walter Reed Army Inst. of Research, Washington,  
D. C.). Amer. J. vet. Res., 1964, 25, 192.
- Naturally-occurring "B" virus infection in cynomolgus monkeys.  
Hartley, E. G. Vet. Rec., 1964, 76, 555.

### Drugs

- An anesthetic for the chimpanzee: 1-(phenylcyclohexyl) piperidine  
HCl. Joffe. Anesth. Analg. Curr. Res., 1964, 43, 221.

### Physiology

- Normal blood values of the adult female Macaca mulatta monkey.  
King, T. O., & Gargus, J. L. Toxicol. appl. Pharmacol., 1964,  
6, 351.
- General sugar content in the blood of the chimpanzee. (In Russian)  
Komarova, T. F., & Firsov, L. A. Dokl. Akad. Nauk. SSSR, 1964,  
155, 486.
- Comparative fundamental physiological parameters of Macaca mulatta  
and Macaca speciosa. Hensley, J. C., and Langham, W. H. (Los  
Alamos Scientific Laboratory, University of California, Los  
Alamos, New Mexico.) Lab. anim. Care, 1964, 14, 105.
- "In order to find a primate better suited for laboratory  
procedures requiring frequent handling, a new Macaca species  
was investigated physiologically. Earlier psychological and  
neurological examination determined that the animal was re-  
markably docile and well suited for common laboratory procedures.  
Four male M. speciosa (the stump-tailed macaque) were obtained  
and subjected to 60-day quarantine and treatment for internal  
parasites and therapeutic antibiotic treatment, as are all  
primates received at this laboratory. Tuberculin tests were  
negative. Comparison of electrocardiogram, electrosphygmogram,  
respirogram, and galvanic skin response of both M. mulatta and  
M. speciosa was made. It was determined that physiologically  
the animals are similar, except for a decreased galvanic skin  
response in M. speciosa, as expected due to temperament dif-  
ferences of the two species. Veterinary clinical procedures



were carried out with ease comparable to human pediatric practice on M. speciosa; whereas, simple procedures were quite difficult with M. mulatta. Cell culture, chromosome analysis, radiometabolism, and hematological studies indicate remarkable similarity of the two species. Ease of handling and adaptability of M. speciosa to routine laboratory techniques results in more variable primate research than provided with M. mulatta."

#### Care, Handling, and Research Uses

Care and treatment of pet primates. Elkhart, Indiana: American Animal Hospital Association, 1964.

A 19-page pamphlet intended as an elementary reference for veterinarians. Can be purchased for \$2.00 from the Association at 3920 E. Jackson, Elkhart, Indiana.

A container for the short distance transfer of laboratory monkeys. Hartley, E. G. (Division of Immunological Products Control, Medical Research Council Laboratories, Holly Hill, Hampstead, London, N.W.3.) Lab. anim. Care, 1964, 14, (2), 103.

Handling procedures and equipment for physiological studies on the pig-tailed monkey (Macaca nemestrina). Rahlmann, D. F., Hansen, J. T., Pace, N., Barnstein, N. J., and Cannon, Mott D. (Department of Physiology, University of California, Berkeley, California.) Lab. anim. Care, 1964, 14, (2), 125.

"Procedures and equipment for maintaining an individually caged colony of 7 to 12 kg pig-tailed monkeys (Macaca nemestrina) are described. Following a quarantine period, the monkeys adapt readily to a training regime. The satisfactory employment of control collars, training chairs, couches and jackets has been contingent with the proper fitting to the individual monkey."

Saimiri sciureus as an experimental animal. Beischer, D. E., & Furry, D. E. Anat. Rec., 1964, 148, 615.

Das Züchten des Orang-Utan im Zoo. Bommel, A. C. V. van. Z. Morph. Anthrop., 1963, 53, 65-71. Abstract: Biol. Abstr., 1964, 45 (No. 40174).

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#### ANNOUNCEMENT OF BABOON SYMPOSIUM

Second International Symposium on the Baboon and Its Use as an Experimental Animal. November 2, 3, 4, 5, 1965. Sponsored by the Southwest Foundation for Research and Education. Headquarters, El Tropicano Motor Hotel, San Antonio, Texas. Symposium Coordinator, L. Richard Smith, Jr., Southwest Foundation for Research and Education, P. O. Box 2296, San Antonio, Texas, 78206.

Additional details will be available in the near future.

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#### ESTABLISHMENT OF INTERNATIONAL PRIMATOLOGICAL SOCIETY

The International Committee on Primatology, a subcommittee of the International Union of Biological Sciences, voted to establish the International Society on Primatology. The Society will be an open one with headquarters in West Germany.

In order to establish the legal status of the Society, it is necessary that persons interested in joining write letters stating their intention to do so. The letters may read: "I recognize the founding of an International Society on Primatology and intend to become a member." The letters should be sent to Professor Dr. H. O. Hofer, Dept. of Primatology, Max Planck Institute for Brain Research, Frankfurt A/M, Deutschordenstrasse 46, West Germany.

# ADDITIONS TO MAILING LIST

Calvin Adams  
Psychology Div.  
USA Med. Res. Lab.  
Fort Knox, Ky. 40121

R. Andrew  
Dept. of Zoology  
University of Oxford  
Oxford, England

Animal Distributors, Inc.  
46-45 Vernon Blvd.  
Long Island City, N.Y.  
Att: Jerome H. Sigholz

Animal Research Center  
Boston Univer. Sch. of Med.  
80 East Concord Street  
Boston, Mass. 02118  
Att: Mr. Albert Dore

E. H. Ashton  
Dept. of Anatomy  
Medical School  
University of Birmingham  
Birmingham, 15, England

L. D. Brookes  
Medical Research Council  
Laboratories  
Holly Hill  
London, N.W. 3, England

William R. Canaday, Jr.  
1625 Granada Blvd.  
Coral Gables, Fla. 33134

James D. Clark  
P. O. Box 4221  
Sch. of Aerospace Med.  
Brooks Air Force Base  
Texas

J. H. Crook  
Dept. of Psychology  
University of Bristol  
8-10, Berkeley Square  
Bristol, 8, England

Geoffrey S. Dawes  
Nuffield Institute for  
Medical Research  
43, Woodstock Road  
Oxford, England

G. Doyle  
Psychology Department  
Univer. of Witwatersrand  
Jan Smuts Avenue  
Johannesburg  
South Africa

Jay T. Dusek  
Laboratory Animal Diets  
Allied Mills, Inc.  
110 North Wacker Drive  
Chicago 6, Illinois

Orville Elliot  
87 Jalan Templer  
Petaling Jaya, Malaya

Abram B. Fajer  
The Worcester Foundation  
for Experimental Biology  
Shrewsbury, Massachusetts

Sidney Gaines  
Walter Reed Army Inst.  
of Research  
Walter Reed Army Medical  
Center  
Washington, D. C. 20012

Felix Garcia  
Animal Research Center  
Harvard Medical School  
25 Shattuck Street  
Boston 15, Mass.

Luis Gonzales-Mugaburu  
Facultade de Medicina  
Universidad del Valle  
Apartado Aereo No. 2188  
Cali-Colombia

Morris Goodman  
Dept. Microbiology  
College of Medicine  
Wayne State University  
1401 Rivard Street  
Detroit, Mich. 48207

G. W. Harris  
Dept. of Human Anatomy  
University of Oxford  
South Parks Road  
Oxford, England

W. W. Howells  
Dept. of Anthropology  
Peabody Museum  
Harvard University  
Cambridge 38, Mass.

Ronald D. Hunt  
Animal Research Center  
Harvard Medical School  
25 Shattuck Street  
Boston 15, Mass.

J. Moor-Jankowski  
Yerkes Regional Primate  
Research Center  
Emory University  
Atlanta 22, Georgia

James E. King  
Department of Psychology  
College of Liberal Arts  
The Univer. of Arizona  
Tucson, Arizona 85721

Richard A. Lende  
Univer. of Colorado  
Medical Center  
4200 East Ninth Ave.  
Denver, Colorado 80220

W. T. London  
School of Veterinary  
Science & Medicine  
Purdue University  
Lafayette, Indiana 47907

Irving Lutsky  
Allen-Bradley Med. Sci. Lab.  
Milwaukee County Hosp.  
8700 West Wisconsin Ave.  
Milwaukee 13, Wisconsin

Mann and Miller, Ltd.  
P. O. Box 4104  
Nairobi, Kenya  
East Africa

Gustav J. Martin  
Research Division  
William H. Rorer, Inc.  
500 Virginia Drive  
Fort Washington, Pa.

Desmond Morris  
The Zoological Society  
of London  
Regent's Park  
London N.W. 1, England

John Napier  
Dept. of Anatomy  
Royal Free Hospital  
School of Medicine  
8, Hunter Street  
London W.C. 1, England

The Ohio State Univer.  
Hospitals  
Rm. 101, Wiseman Hall  
410 West Tenth Avenue  
Columbus, Ohio 43210  
Att: Dr. Stilson

C. Oxnard  
Dept. of Anatomy  
University of Birmingham  
Birmingham, 15, England

J. J. Peter  
Écologie Générale  
Muséum National  
D'Histoire Naturelle  
4, Ave. de Petit Chateau  
Brunoy (S.-&-O.), France

Dept. of Clinical Science  
University of Pittsburgh  
School of Medicine  
3811 O'Hara Street  
Pittsburgh, Pa. 15213

Porter Mathews Co., Inc.  
U. S. Route #1  
Princeton, New Jersey  
Att: A. L. Porter

Alexandra Ramsay  
Res. Cen. Anthropology  
Rayl House  
1825 East Third Street  
Indiana University  
Bloomington, Ind. 47403

Robert S. Runkle  
Development Section  
Res. Facilities Plan. Br.  
Bldg. 13, Room 2905  
Nat. Inst. of Health  
Bethesda, Md. 20014

Albert Schaffer  
Central Animal Service  
Downstate Medical Center  
State University of N. Y.  
450 Clarkson Ave.  
Brooklyn 3, New York

Marvin Snyder  
Department of Psychology  
Duke University  
Durham, North Carolina

M. W. Sorenson  
Dept. of Zoology  
213 LeFevre Hall  
University of Missouri  
Columbia, Missouri

Neil C. Tappen  
Dept. of Surgery  
School of Medicine  
Tulane University  
1430 Tulane Avenue  
New Orleans, La. 70112

C. B. Thayer  
Animal House, Med. Lab.  
State Univer. of Iowa  
Iowa City, Iowa

Nicholas S. Thompson  
1431 Arch Street  
Berkeley 8, Calif.

Richard Troelstrup  
4644 El Cerrito Dr.  
San Diego, Calif. 92115

John G. Vandenberg  
Box 668  
Lajas  
Puerto Rico

Richard A. Vandercook  
2680 Cranford Road  
Columbus 21, Ohio

W. P. VanderLaan  
Endocrine Division  
Scripps Clinic and  
Research Foundation  
476 Prospect Street  
La Jolla, California

M. M. Wolcott  
Surgical Service  
VA Hospital  
Coral Gables, Florida

George L. Wolf  
Department Veterinary Pathology  
Veterinary Pathology Bldg.  
1925 Coffee Road  
Columbus, Ohio 43210

# ADDRESS CHANGES

Robert L. Abrams  
1318 Voll Road  
Cincinnati, Ohio 45230

Joe W. Atkinson  
Surgery Study Sec. B., DRG  
Westwood Bldg., Room 540  
Bethesda, Md. 20014

Robert P. Beliles  
Woodard Research Corp.  
P. O. Box 405  
Herndon, Virginia

Marvin F. Daley  
Department of Psychology  
Univer. of Missouri  
at Kansas City  
Kansas City, Missouri

C. W. deLannoy, Jr.  
Oregon Regional Primate  
Research Center  
505 N. W. 185th Ave.  
Beaverton, Oregon

Irven DeVore  
Peabody Museum  
Harvard University  
Cambridge, Massachusetts

George A. Heise  
Dept. of Psychology  
Indiana University  
Bloomington, Indiana

R. A. Hinde  
Department of Zoology  
Downing Street  
Cambridge, England

Phyllis C. Jay  
Department of Anthropology  
University of California  
Berkeley, California

William A. Mason  
Delta Regional Primate  
Research Center  
Covington, Louisiana

W. Lane-Petter  
M.R.C. Laboratories  
Woodmansterne Road  
Carshalton  
Surrey, England

Donald E. Pickering  
Developmental Biology  
Department of Pediatrics  
Tulane Medical School  
New Orleans, La. 70112

J. Sidowski  
Dept. of Psychology  
San Diego State College  
San Diego, California

Charles A. Spezia  
Scientific & Process  
Instruments Div.  
Beckman Instruments, Inc.  
2500 Harbor Blvd.  
Fullerton, California

Thomas L. Wolfle  
P. O. Box 4215  
SAM Brooks AFB  
Texas