Gmail **Christine, an unincorporated woman <cmssyc@gmail.com>**

FOI to CDC re: scientific proof/evidence of "encephalitis virus" or purification

Christine, an unincorporated woman <cmssyc@gmail.com> Sat, Jan 6, 2024 at 1:21 PM
To: "FOIA Requests (CDC)" <FOIARequests@cdc.gov>

January 6, 2023

To:
Roger Andoh
Freedom of Information Officer
1600 Clifton Rd NE MS T-01
Atlanta, Georgia 30333
Email: FOIARequests@cdc.gov
Phone: 770-488-6277
Fax: 770-488-6200

Greetings Roger,

I require access to general records, as per the *Freedom of Information Act.*

Description of Requested Records:

1. All studies/reports in the possession, custody or control of the Centers for Disease Control and Prevention (CDC) and/or the Agency for Toxic Substances and Disease Registry (ATSDR) that scientifically prove/evidence the existence of the alleged **western equine encephalitis virus or any other alleged encephalitis virus** (showing that the alleged particle exists and causes the dis-ease that it's alleged to cause)**.**

Note:
Scientific proof/evidence is NOT

- Opinions, or
- Speculation, or
- Review papers, or
- Descriptive papers.

Scientific proof/evidence requires use of the scientific method to test falsifiable hypotheses through valid, rigorous, repeatable controlled experiments.

2. **If the CDC has no studies responsive to #1 above**, then please indicate such explicitly, and provide all studies and/or reports in the possession, custody or control of the Centers for Disease Control and Prevention (CDC) and/or the Agency for Toxic Substances and Disease Registry (ATSDR) describing the **purification** of particles that are alleged to be said virus(es), directly **from bodily fluid/tissue/excrement of alleged "hosts", with purification confirmed via EM imaging** (the images must be available as well).

Please note that I am not requesting studies/reports where researchers failed to **purify** the suspected "virus" and instead:

- cultured an unpurified sample or other unpurified substance, and/or
- performed an amplification test (i.e. a PCR test), and/or
- created an in silico "genome", and/or
- produced electron microscopy images of unpurified things.

I am aware that according to virus dogma a "virus" requires host cells in order to replicate; I am not seeking records describing the replication of a "virus" without host cells, or that describe a suspected "virus" floating in a vacuum or a strict fulfillment of Koch's Postulate; I am simply seeking records that describe its purification (**separation from everything else in the "host" sample**).

General Note:
This FOI is **not limited** to records that were authored by the CDC or ATSDR or that pertain to work done at/by the CDC or ATSDR, it includes any record matching the above description authored by anyone, anywhere, ever.

Publicly Available Records
If any records match the above description of requested records and are currently available to the public elsewhere, please assist me by providing enough information about each record so that I may identify and access each one with certainty (i.e. title, author(s), date, journal, where the public may access it). Please provide URLs where possible.

Format:
Pdf documents sent to me via email; please don't ship anything to me;

Contact Information:
email: cmssyc@gmail.com

Thank you in advance and best wishes,
Christine

Gmail **Christine, an unincorporated woman <cmssyc@gmail.com>**

Acknowledgement (Complex) >30 Days - 24-00485-FOIA

tkz7@cdc.gov <tkz7@cdc.gov> Mon, Jan 8, 2024 at 12:49 PM
To: cmssyc@gmail.com

January 8, 2024

Request Number: 24-00485-FOIA

Dear Ms. Massey:

This is regarding your Freedom of Information Act (FOIA) request of January 8, 2024, for: "1. All studies/reports in the possession, custody or control of the Centers for Disease Control and Prevention (CDC) and/or the Agency for Toxic Substances and Disease Registry (ATSDR) that scientifically prove/evidence the existence of the alleged western equine encephalitis virus or any other alleged encephalitis virus (showing that the alleged particle exists and causes the dis-ease that it's alleged to cause). 2. If the CDC has no studies responsive to #1 above, then please indicate such explicitly, and provide all studies and/or reports in the possession, custody or control of the Centers for Disease Control and Prevention (CDC) and/or the Agency for Toxic Substances and Disease Registry (ATSDR) describing the purification of particles that are alleged to be said virus(es), directly from bodily fluid/tissue/excrement of alleged "hosts", with purification confirmed via EM imaging (the images must be available as well)."

Please see the attached letter.

Sincerely,
CDC/ATSDR FOIA Office
770-488-6399

2 attachments

FOI to CDC re_ scientific proof_evidence of _encephalitis virus_ or purification.msg
167K

Acknowledgement (Complex) 30 Days.pdf
119K

DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

January 8, 2024

Ms. Christine Massey
[redacted]
Via email: cmssyc@gmail.com

Dear Ms. Massey:

The Centers for Disease Control and Prevention and Agency for Toxic Substances and Disease Registry (CDC/ATSDR) received your attached Freedom of Information Act (FOIA) request dated January 8, 2024. Your request assigned number is 24-00485-FOIA, and it has been placed in our complex processing queue.

Extension of Time
In unusual circumstances, an agency can extend the twenty-working-day limit to respond to a FOIA request.

We will require more than thirty working days to respond to your request because:

- We reasonably expect to consult with two or more Centers/Institutes/Offices.

If you have any questions or wish to discuss reformulation or an alternative time frame for the processing of your request, please contact the analyst handling your request Yuliya Scott at tkz7@cdc.gov or our FOIA Public Liaison, Bruno Viana at 770-488-6246. Additionally, you may contact the Office of Government Services (OGIS) to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services; National Archives and Records Administration; 8601 Adelphi Road-OGIS; College Park, Maryland 20740-6001; e-mail at ogis@nara.gov; telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5769.

Fee Category

Because you are considered an "Other requester" you are entitled to two hours of free search time, and up to 100 pages of duplication (or the cost equivalent of other media) without charge, and you will not be charged for review time. We may charge for search time beyond the first two hours and for duplication beyond the first 100 pages. (10 cents/page).

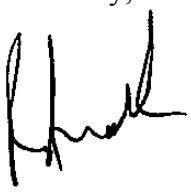
Cut-off-date

If you don't provide us with a date range for your request, the cut-off date for your request will be the date the search for responsive records starts.

You may check on the status of your case on our FOIA webpage https://foia.cdc.gov/app/Home.aspx and entering your assigned request number. If you have any questions regarding your request, please contact Yuliya Scott at tkz7@cdc.gov.

We reasonably anticipate that you should receive documents by May 6, 2024. Please know that this date roughly estimates how long it will take the Agency to close requests ahead of your request in the queue and complete work on your request. The actual date of completion might be before or after this estimated date.

Sincerely,



Roger Andoh
CDC/ATSDR FOIA Officer
Office of the Chief Operating Officer
(770) 488-6399
Fax: (404) 235-1852

24-00485-FOIA

Gmail **Christine, an unincorporated woman <cmssyc@gmail.com>**

Final Response No Records - 24-00485-FOIA

tkz7@cdc.gov <tkz7@cdc.gov> Wed, Jan 24, 2024 at 8:52 AM
To: cmssyc@gmail.com

January 24, 2024

Request Number: 24-00485-FOIA

Dear Ms. Massey:

This is regarding your Freedom of Information Act (FOIA) request of January 8, 2024, for: "1. All studies/reports in the possession, custody or control of the Centers for Disease Control and Prevention (CDC) and/or the Agency for Toxic Substances and Disease Registry (ATSDR) that scientifically prove/evidence the existence of the alleged western equine encephalitis virus or any other alleged encephalitis virus (showing that the alleged particle exists and causes the dis-ease that it's alleged to cause). 2. If the CDC has no studies responsive to #1 above, then please indicate such explicitly, and provide all studies and/or reports in the possession, custody or control of the Centers for Disease Control and Prevention (CDC) and/or the Agency for Toxic Substances and Disease Registry (ATSDR) describing the purification of particles that are alleged to be said virus(es), directly from bodily fluid/tissue/excrement of alleged "hosts", with purification confirmed via EM imaging (the images must be available as well)."

Please see the attached letter.

Sincerely,
CDC/ATSDR FOIA Office
770-488-6399

2 attachments

FOI to CDC re_ scientific proof_evidence of _encephalitis virus_ or purification.msg
167K

Final Response No Records.pdf
111K

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Public Health Service

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30333

January 24, 2024

Ms. Christine Massey
[redacted]
Via email: cmssyc@gmail.com

Dear Ms. Massey:

This letter is in response to your Centers for Disease Control and Prevention and Agency for Toxic Substances and Disease Registry (CDC/ATSDR) Freedom of Information Act (FOIA) request of January 8, 2024, attached.

A search of our records failed to reveal any documents pertaining to your request. The principal science behind the discovery and description of western equine encephalitis virus occurred before CDC became an agency. A key reference is listed below.

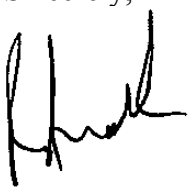
Author(s) : Kelser, R. A.
Journal article : Science (Washington) 1937 Vol.85 No.2198 pp.178 p ref.1
Abstract : In experiments in 1936, Aedes taeniorhynchus, Wied., transmitted the western type of equine encephalomyelitis from one guineapig to another, but did not transmit the eastern type. In one of a number of positive experiments, a single mosquito feeding only once produced the disease and death of the guineapig in five days.

ISSN : 0036-8075
Record Number : 19371000288
Publisher : American Association for the Advancement of Science
Country of publication : USA
Language of text : English

You may contact our FOIA Public Liaison at 770-488-6246 for any further assistance and to discuss any aspect of your request. Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows: Office of Government Information Services, National Archives and Records Administration, 8601 Adelphi Road-OGIS, College Park, Maryland 20740-6001, e-mail at ogis@nara.gov; telephone at 202-741-5770; toll free at 1-877-684-6448; or facsimile at 202-741-5769.

If you are not satisfied with the response to this request, you may administratively appeal to the Deputy Agency Chief FOIA Officer, Office of the Assistant Secretary for Public Affairs, U.S. Department of Health and Human Services, via the online portal at https://requests.publiclink.hhs.gov/App/Index.aspx. Please mark both your appeal letter and envelope "FOIA Appeal." Your appeal must be electronically transmitted by June 3, 2024.

Sincerely,



Roger Andoh
CDC/ATSDR FOIA Officer
Office of the Chief Operating Officer
(770) 488-6399
Fax: (404) 235-1852

#24-00485-FOIA

Gmail **Christine, an unincorporated woman <cmssyc@gmail.com>**

Final Response No Records - 24-00485-FOIA

Christine, an unincorporated woman <cmssyc@gmail.com> Fri, Feb 16, 2024 at 5:32 PM
To: tkz7@cdc.gov, "FOIA Requests (CDC)" <FOIARequests@cdc.gov>, spu8@cdc.gov

Hi Roger and Robin,

I've written about this FOIA response:

CDC FOIA confession: no scientific evidence of any encephalitis "virus"
https://christinemasseyfois.substack.com/p/cdc-foia-confession-no-scientific

In addition to the "no records" confession, we have the following problem with the "key reference" provided by Roger:

As you can see, the “principal science” is not a scientific study with a detailed description of the methodologies employed and the results obtained. It’s just a brief note less than half a page in length, vaguely claiming that 6 or maybe 7 different species of mosquitoes had been shown to transmit equine encephalomyelitis among guinea pigs.

It contains no hint of how, or whether, any specific illness-causing agent (“virus”) was actually identified and shown via valid controlled experiments to do anything.

It contains no description of any purported “virus” or causal agent, at all.

*And like many “germ” studies, it contains **no hint at controls having been implemented in any experiment whatsoever**.*

But according to the CDC this is the “principal science” establishing the existence of “western equine encephalitis virus” and transmission of the dis-ease.

And, regarding the 1933 publication cited by Kelser in his brief useless note described above:

It is 4.5 vague pages in length, described as a "brief summary" promising a full, detailed treatise at a later date.

In it, "Major R. A. Kelser, V. C., U. S. Army, Army Medical School, Army Medical Center" made no mention whatsoever of controls and gave no description of the living conditions for the animals.

According to Kelser, the Chief of the Division of Pathology, U. S. Bureau of Animal Industry obtained something from a horse with encephalomyelitis, labelled it "the virus" and gave it to Kelser or whoever carried out this research.

The Army Medical School supplied mosquitoes (Aedes aegypti) that had been kept under "laboratory conditions" for the previous ~7 years.

The researchers "artificially inoculated" (those are Kelser's words, see p 771) two guinea pigs intracutaneously with the so-called "virus", and a third guinea pig both intracutaneously and intracerebrally.

Over the next week, the researchers allowed hundreds of mosquitoes to feed on the "artificially inoculated" guinea pigs.

By the 5th day, the guinea pig that had been "artificially inoculated" intracutaneously and intracerebrally was dead; 2 days later the other guinea pigs were also dead.

The searchers then killed 2 mosquitoes that had fed on the tortured guinea pigs, ground them up with some physiological saline solution and injected those foreign proteins etc. intracutaneously into another guinea pig (which had not previously been "artificially inoculated"). It died of encephalomyelitis a little over a week later.

The searchers then gave 48 of the mosquitoes, which by this point hadn't eaten for 6 days, another guinea pig to feed on and it too died of encephalomyelitis 8 days later.

After another 6 days without feeding, the researchers gave these same mosquitoes another guinea pig to feed on. It died of encephalomyelitis 9 days later.

After another 6 days without feeding, the researchers gave these same mosquitoes another 2 guinea pigs to feed on and they both died with encephalomyelitis 6 days later.

The researchers then gave another batch of hungry mosquitoes (that had also previously fed on the "artificially inoculated", tortured and now-dead guinea pigs) a live guinea pig to feed on and it died with encephalomyelitis 6 days later.

The researchers then took some of that guinea pig's brain, emulsified it and "artificially inoculated" it intracutaneously into 2 other guinea pigs, which both died with encephalomyelitis 7 days later.

And so on... until the researchers obtained a horse. They exposed the horse to 7 groups of hungry mosquitoes over a 16 day period. It developed "the classical symptoms of encephalomyelitis" and died within a month after the exposures began.

This is not rigorous or logical or scientific evidence of anything. It’s useless animal torture.

Kelser's "brief summary" does not mention any controls having been implemented and it does describe unnatural, invalid exposure routes.

It does not demonstrate that equine encephalomyelitis spreads in nature, and it most certainly did not identify any specific potential causal agent - let alone a “virus” by today’s standards: a submicroscopic, replication-competent intracellular obligate parasite that causes a contagious illness via natural exposure routes.

Christine

[Quoted text hidden]

LETTER DISCUSSION

Transmission of the Virus of Equine Encephalomyelitis by *Aedes taeniorhynchus*

R. A. KELSER Authors Info & Affiliations

SCIENCE 12 Feb 1937 Vol 85, Issue 2198 p. 178 DOI: 10.1126/science.85.2198.178.a

purpose of others who have used it. However, difficulty soon arose in the application of water culture data to soil problems and in time the method became more and more a feature of plant physiology rather than that of soil science.

Plant physiology used water culture as a means for study of plant processes and, as a consequence of the technique found necessary for such studies, data showing the great productive potentiality of liquid culture media were not obtained. The fact that water culture has been known to plant physiology so long, and has not heretofore been applied in a practical way, created the necessity for a name to be given the new development. The name also would draw distinction between two uses of water culture—the strictly scientific and the economic.

Because the term "aquiculture," as used by the author in the first announcement, had previously been used in other connections, being the designation given to the culture of aquatic plants and marine animals, it becomes necessary to select a new word. "Hydroponics," which was suggested by Dr. W. A. Setchell, of the University of California, appears to convey the desired meaning better than any of a number of words considered. Hydroponics has analogy in geoponics—the Greek term by which agriculture was known for several centuries in the middle ages; this word appears to have been in common use before the latinized term "agriculture" obtained universal standing. Furthermore, "hydroponics" (*hydro,* water, and *ponos,* labor) has a strong economic and utilitarian connotation; therefore it is desirable in view of the historic use of water culture in plant physiology. The word has not been used heretofore in a scientific sense, and hence there can be no objection as to prior usage.

W. F. GERICKE

UNIVERSITY OF CALIFORNIA
BERKELEY

TRANSMISSION OF THE VIRUS OF EQUINE ENCEPHALOMYELITIS BY AEDES TAENIORHYNCHUS

SINCE the initial discovery by the undersigned,[1] in 1933, that the mosquito *Aedes aegypti* is capable of transmitting the virus of equine encephalomyelitis, numerous additional transmission studies have been conducted by different investigators with various other mosquitoes. As a result some five or six additional species have been found capable of transmitting the disease.

During the latter half of the past year transmission experiments were undertaken with *Aedes taeniorhynchus*. These studies have definitely proved the ability of *Aedes taeniorhynchus* to transmit the "Western" type of equine encephalomyelitis from guinea pig to guinea pig.

In one out of a number of positive experiments a single mosquito feeding but once on a guinea pig produced the disease and death of the pig in five days. This was repeated with the same mosquito and another guinea pig, death of this pig from encephalomyelitis occurring in six days.

Transmission tests with *Aedes taeniorhynchus* and the "Eastern" type of virus, in so far as they have gone, have been negative. However, this phase of the study is incomplete and is being pursued further.

Details of the positive transmission experiments with the "Western" type of virus will be published in the near future.

R. A. KELSER

ARMY MEDICAL RESEARCH BOARD,
ANCON, CANAL ZONE

[1] R. A. Kelser, *Jour. Am. Vet. Med. Asn.*, 35: 5, May, 1933.

VITAMIN C IN PASTEURIZED MILK

SHARP[1] has recently drawn attention to the well-known effect of copper in accelerating the loss of reduced ascorbic acid in milk and has shown that this effect is smaller in milk pasteurized for 10 minutes at 77° C. than in milk pasteurized for 30 minutes at 62°–63° C.

As a result of his observation Sharp concludes that it is commercially feasible to produce copper-free pasteurized milk which will contain as much vitamin C as raw milk of the same age and that the main nutritional objection to pasteurized milk is thereby removed. The second conclusion is open to grave doubt for two reasons. First, cow's milk can not be regarded as an important source of vitamin C on account of low concentration of the vitamin in fresh milk and the uncertainty as to its preservation. Milk pasteurized in the most careful manner contains immediately after pasteurization only about 10 to 20 mg of ascorbic acid per liter. King[2] has estimated the daily human requirement at 25 mg for an infant and 40 mg for an adult, and recommends an estimated dietary allowance well above these minima. Thus an infant must take 2½ liters of the most carefully pasteurized milk in order to ensure ingestion of the mere minimum allowance of vitamin C. On the other hand, this quantity of vitamin C is contained in a relatively small volume of fruit juice.

Secondly, there are other milk constituents of which milk is the only source for infants and an important one for adults: and these may be harmed by pasteurization. For instance, pasteurization of cow's milk by the holder method renders its calcium less available for

[1] SCIENCE, 84: 461, 1936.
[2] *Physiological Reviews,* 16: 238, 1936.

VOL. LXXXII MAY, 1933 N.S. VOL. 35, No. 5

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of the
American Veterinary Medical Association

EDITED AND PUBLISHED FOR
The American Veterinary Medical Association

CONTENTS

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Journal of the American Veterinary Medical Association
American Veterinary Medical Association.
Shaumburg, Ill. [etc.] : American Veterinary Medical Association.

https://hdl.handle.net/2027/uc1.b2954946

MOSQUITOES AS VECTORS OF THE VIRUS OF EQUINE ENCEPHALOMYELITIS*

By Major R. A. KELSER, *V. C., U. S. Army,*
Army Medical School, Army Medical Center,
Washington, D. C.

At a seminar at the Army Medical School on March 17, 1933, and subsequently at a meeting of the Washington Branch of the Society of American Bacteriologists held March 21, 1933, the author presented a preliminary report on the ability of mosquitoes to transmit the virus of equine encephalomyelitis to guinea pigs. At the time the report was made to the two organizations mentioned, a mosquito-feeding experiment was under way with a horse, but up until that time the animal had shown no ill effects from the mosquito bites. Subsequently, however, this animal developed encephalomyelitis and died as a result thereof. Thus, we are now in a position to state definitely that mosquitoes are capable of transmitting the virus of equine encephalomyelitis, not only to guinea pigs but also to horses.

There is presented in the following paragraphs a brief summary of this work. A full, detailed treatise will be published at a later date.

The virus employed in these experiments was originally obtained from a natural case of the disease occurring in a horse in August, 1932, in South Dakota. It was furnished the Army Medical School in September, 1932, by Dr. H. W. Schoening, Chief of the Division of Pathology, U. S. Bureau of Animal Industry.

The mosquitoes used were *Aedes aegypti,* from stock which has been maintained by the Army Medical School, under laboratory conditions, since 1925, the original stock having been brought from the Philippine Islands.

The guinea pigs used weighed between 250 and 300 grams each. They were from carefully selected stock and had undergone our usual period of quarantine and observation before being placed in the experiments.

Following numerous passages of the virus through guinea pigs, and preliminary studies to determine the periods the blood of infected guinea pigs contained virus, three guinea pigs were inoculated for use in the mosquito-transmission experiments. One of these three pigs was inoculated both intracutaneously

*Received for publication, April 3, 1933.

and intracerebrally. The other two were inoculated only by the intracutaneous route.

Commencing 48 hours after the infection of the guinea pigs, a lot of 50 *Aedes aegypti* was permitted to feed on these three guinea pigs. The following day—72 hours after the inoculation of the guinea pigs—a second lot of 50 mosquitoes was fed on the pigs. This procedure was repeated the following day with another lot of mosquitoes. On the morning of the fifth day following the inoculation of the guinea pigs, the animal that had received both the intracutaneous and intracerebral injections was dead. Hence, our next lot of mosquitoes fed only on the two pigs which had received the intracutaneous inoculations. The following day—144 hours after the infection of the guinea pigs—another lot of 50 mosquitoes was permitted to feed on the pigs, which were then in the late stages of the disease. By the following morning, both of these guinea pigs were dead.

Thus, we had five lots, each consisting of fifty mosquitoes, which had fed on guinea pigs infected with equine encephalomyelitis virus, 48, 72, 96, 120 and 144 hours respectively, subsequent to the inoculation of the pigs.

Experience has shown that this species of mosquito, under laboratory conditions, will draw blood approximately every six or seven days. Hence, we permitted the mosquitoes of each of our five lots to feed on a normal guinea pig on the sixth day following their initial feeding on the infected guinea pigs. The picture can be presented best by giving consecutively the results obtained with one lot of mosquitoes before taking up the next lot.

Starting with the 48-hour lot of mosquitoes, it should be stated that we killed two of the mosquitoes of this lot immediately after they had fed on the infected guinea pigs. These two mosquitoes were then ground in a little physiological saline solution and injected intracutaneously into a guinea pig. This guinea pig died of encephalomyelitis eight days later. Six days subsequent to the initial feeding of this lot of mosquitoes on the infected pigs, they were fed on a normal guinea pig. This pig died of encephalomyelitis eight days later. After an additional six days (twelve days after the original infective meal), this lot of mosquitoes was fed on another normal guinea pig. This animal died of the disease on the ninth day following, but showed symptoms of paralysis as early as the sixth day. Then, eighteen days after this lot of mosquitoes had partaken of their original infective meal, they were permitted to feed on two normal guinea pigs. Both of these pigs died of encephalomyelitis on the sixth day following the exposure to the mosquitoes.

The mosquitoes of the 72-hour lot were fed on a normal guinea pig on the sixth day subsequent to their meal on the infected guinea pigs. This pig died of encephalomyelitis six days later. The intracutaneous inoculation of a small amount of an emulsion of the brain of this animal into two normal guinea pigs produced encephalomyelitis, and death in both cases on the seventh day. The brains of these two animals were then emulsified and a small amount inoculated intracutaneously into each of three normal guinea pigs. Two of these three animals died of the disease, one on the sixth day and the other on the ninth day. Twelve days after their infective meal, this lot of mosquitoes was fed on three normal guinea pigs, and at the same time two of the mosquitoes were killed and inoculated intracutaneously into a fourth normal guinea pig. This latter pig died of encephalomyelitis eight days later. During the feeding of the mosquitoes on the other three pigs, it was noted that one of these pigs (a white one) was bitten by only 3 or 4 mosquitoes, the insects preferring to feed on the other two animals which were dark in color. These two dark-colored pigs died of encephalomyelitis on the fourth and sixth days respectively, following the mosquito bites. The white pig survived. When the time for the third test-feeding of this group of mosquitoes arrived, we had obtained a horse, so, instead of feeding the mosquitoes on one or more guinea pigs, we placed them on the horse. The results with the horse will be discussed a little farther along.

On the sixth day following their feeding on the original three infected guinea pigs, the mosquitoes of the 96-hour lot were fed on a normal guinea pig. This animal died of encephalomyelitis six days subsequently. Twelve days subsequent to the feeding on the infected guinea pigs, this lot of mosquitoes was permitted to feed on three guinea pigs. All three of these latter animals have remained healthy. When the time for the third test-feeding of this group of mosquitoes arrived (18th day), this lot, like the 72-hour lot, was fed on the horse.

The mosquitoes of the 120-hour lot were fed on one normal guinea pig on the sixth day following their feeding on the original two intracutaneously-injected guinea pigs. This pig died of encephalomyelitis on the tenth day following. Then, after another period of six days, this lot of mosquitoes was fed on two normal guinea pigs. One of these died of encephalomyelitis six days later; the other has remained healthy. As with the two former lots of mosquitoes, the 120-hour lot was fed on the horse rather than on guinea pigs, when the time for the third test-feeding arrived.

The mosquitoes of the 144-hour lot were fed on normal guinea pigs 6, 12, 18 and 24 days respectively, after their initial feeding on the originally infected guinea pigs. The guinea pigs bitten by this lot of mosquitoes have all remained healthy.

As indicated above, the horse used in this experiment was bitten by mosquitoes of the 72-hour lot, 96-hour group, and 120-hour lot. In the meantime, by the procedure we had previously employed, we fed four new lots of mosquitoes (50 in each lot) on infected guinea pigs. Thus, these four lots consisted of mosquitoes which had fed 48, 72, 96 and 120 hours respectively, following the inoculation of the guinea pigs used to infect the insects. Then, mosquitoes of each of these four lots were fed on the horse on the sixth day following their initial feeding on the infected guinea pigs. The horse we used was thus exposed to a total of seven groups of mosquitoes within 16 days. The number of mosquitoes in these seven groups which engorged on the horse totaled approximately 110.

The horse showed a slight temperature rise (2 degrees) on the eleventh day following the date on which the first lot of mosquitoes fed on it, but manifested no other evidence of abnormality. However, on the 22nd day subsequent to the date we fed the first group of mosquitoes on this animal, it developed a temperature rise which, within 24 hours, reached 106° F. Shortly following the onset of fever, the horse developed the classical symptoms of encephalomyelitis, and died as a result of the disease on the fifth day.

Obviously, from this experiment, we do not know which of the seven lots of mosquitoes was responsible for the disease in the horse. Our object in this particular test was to determine whether or not mosquitoes could transmit the disease to the equine genus. Our results make it possible to answer this in the affirmative. Supplementary experiments, now in progress, should clear up questions of various details.

In conclusion, it may be stated that we have produced encephalomyelitis, due to the filtrable virus of the equine disease, in numerous guinea pigs, and in a horse, through the agency of mosquitoes of the species *Aedes aegypti*. The mosquitoes proved infectious as early as the sixth day following feeding on an infected animal, and remained infectious for at least 18 days subsequent to the infective meal. It is possible that the mosquitoes may be capable of transmitting the disease earlier than the sixth day after an infective feeding, and it is highly probable that they remain infectious for a much longer period than 18 days. Tests to clear up these points are in progress.

In our guinea-pig tests, mosquitoes were infected by feeding on artifically inoculated guinea pigs 48 and 72 hours subsequent to the inoculation of the pigs, and to a lesser extent, 96 and 120 hours after the infection of the guinea pigs. Mosquitoes, fed on the inoculated guinea pigs 144 hours subsequent to the inoculation, failed to become infective. These periods of infectivity of the inoculated guinea pigs for the mosquitoes followed in general the period of fever in the pigs.

Since the classical work of Meyer, Haring and Howitt, proving that the American type of equine encephalomyelitis is due to a filtrable virus, speculation has existed as to the natural mode of infection. We believe that the results we have reported, coupled with epizoölogical observations, indicate that the disease is naturally transmitted by insect vectors—very probably mosquitoes. While it is understood that the particular species of mosquito (*Aedes aegypti*), which figured in our experiments, is not likely to be found in a number of the areas where encephalomyelitis has been enzoötic, other species of this same genus (Aedes) do occur in such areas and in all probability are as capable of transmitting the disease as the *aegypti* species.

California Has New State Veterinarian

Dr. C. U. Duckworth (Ind. '21), of Los Angeles, Calif., has succeeded Dr. Joseph J. King (San Fran. '13) as Chief of the Division of Animal Industry, California Department of Agriculture, Sacramento. Dr. Duckworth reënters state control work in California at a critical time in the progress of its tuberculosis eradication program, and it is believed that his experience in matters relating to the dairy industry, both in private and public connections, will be of great value to all interests concerned.

Doctor Youngberg in New Role

Dr. Stanton Youngberg (O. S. U. '07) completed his term of office as Director of the Bureau of Animal Industry, Philippine Department of Agriculture, on December 31, 1932, and is now employed as a technical adviser on the staff of the Governor-General, detailed to the Department of Agriculture and Commerce. On March 29, Dr. Youngberg left Manila for Hong Kong, Canton and Shanghai, on official business for the Government of the Philippine Islands.

Dr. Victor Buencamino (Corn. '11) has succeeded Dr. Youngberg as Director of the Bureau of Animal Industry.