

Institutional Animal Care and Use Committee (IACUC)

Office of Research Integrity and Assurance

Arizona State University

Animal Protocol Review

ASU Protocol Number: 21-1866R
Protocol Title: Behavioral and Physiological Studies of Auditory Perception
Principal Investigator: [REDACTED]
Date of Action: 7/22/2021

The animal protocol review was considered by the Committee and the following decisions were made:

The protocol was approved.

NOTE: If you have not already done so, documentation of Level III Training (i.e., procedure-specific training) will need to be provided to the IACUC office before participants can perform procedures without supervision. For more information on Level III requirements see <https://researchintegrity.asu.edu/animals/training> or contact Research Support Services within DACT at [REDACTED]

Additional requirements:

- ☐ This protocol requires that Research Support Services group within DACT provide supervision for the first time a procedure is conducted. Contact [REDACTED] to schedule.
- ☒ This protocol indicates that there are surgical procedures. A surgical checklist may be required to be submitted to Research Support Services within DACT [REDACTED], prior to starting surgeries.
- ☐ Other requirements:

Total # of Animals: 20
Species: NHP Pain Category: C – 2
Species: NHP Pain Category: D – 18

Protocol Approval Period: 7/22/2021 – 7/21/2024

Sponsor:
ASU Proposal/Award #:
Title:

[REDACTED]

Signature: [REDACTED]
IACUC Chair or Designee

Date: 7/29/2021

Cc: IACUC Office
IACUC Chair

Genus/Species or Common Name	Number of Animals per year projected			
	Year 1	Year 2	Year 3	Total
Callithrix jacchus	12 + 4 (2 breeding pairs)	2	2	20

4. What refinements, if any, have been made to reduce the number of animals used and the potential detrimental effects on the study animals?

The number of animals requested represents a minimum number that is necessary to demonstrate the repeatability of the scientific observations under each experimental condition. To reduce the number of animals, we plan to record in both hemispheres of each animal and if possible, use the same animal for multiple studies which do not require additional surgeries. We have thoroughly researched anesthesia and analgesia regimens to help reduce negative effects in surgery and ensure there is always adequate analgesia provided. We will train the monkeys using positive reinforcement to minimize stress during cage capture and restraint. We will maintain the cleanliness of implants to minimize infection and will have a well-designed environmental enrichment program to promote the animal's psychological well-being.

III. EMERGENCY CONTACT

- A. Who should be contacted in case of an animal emergency? **Note: This information will be redacted if this protocol is requested as a public document.**

Name: [REDACTED]

Office Phone #: [REDACTED]

Home Phone #: [REDACTED]

Cell Phone #: [REDACTED]

IV. DUPLICATION AND ALTERNATIVES **PLEASE READ ALL INSTRUCTIONS.**

The Animal Welfare Act requires that you document your justifications with data from two or more sources. **One source must be a set of searches of a relevant database: name the database searched, the keyword and keyword combinations searched, the date the search was performed, and the date range searched. The second source can be a set of searches of a second relevant database, or consultation with a laboratory animal science veterinarian, or courses/meetings/consultations with qualified personnel.** Sufficient documentation, such as the consultant's name and qualifications and the date and content of the consult, should be provided to the IACUC to demonstrate the expert's knowledge of the availability of alternatives in the specific field of study. Examples of appropriate databases to search include PUBMED, Web of Science, or Animal Welfare Information Center (AWIC – recommended for USDA-covered species <https://www.nal.usda.gov/awic/databases>).

- A. Provide the following details for the most recent literature search used to explore for duplicative research. (The literature search documents that the research will not unnecessarily duplicate previous research). Teaching protocols do not need to conduct this search.

Date that search was conducted (*Must be within 60 days of the IACUC review date*): 06/25/2021; 07/12/2021

Database(s) used: PUBMED; Web of Science

Publication years covered by the search: 1975-2021

Keyword combinations used: ((primate auditory cortex) AND (spatial hearing)) AND (multisensory perception)

- B. Provide the following details for the most recent literature search used to explore for **alternatives to animal use and alternatives to painful procedures**. Alternatives should be considered for any aspect of the protocol that may cause more than momentary or slight pain or distress to the animal. Alternatives to be considered include those that would: 1) refine the procedure to minimize discomfort that the animal(s) may experience; 2) reduce the number of animals used overall; or 3) replace animals with non-animal alternatives (e.g., computer models or tissue culture). **All protocols (research and teaching) MUST conduct this search.**

Date that search was conducted (*Must be within 60 days of the IACUC review date*): 06/25/2021; 07/12/2021

Database(s) used: PUBMED; Web of Science

Publication years covered by the search: 1975-2021

If yes, describe and justify:

- B. Using the table below, list all USDA covered species to be used in the proposed study and indicate the number of animals to be used under each USDA pain category. For an animal undergoing multiple procedures, include the animal under the highest level of pain/distress expected for that animal.

Species	Number per USDA Category*				Total number of animals requested
	B	C	D	E	
<i>Callithrix jacchus</i>		2	18		20

*USDA PAIN CATEGORIES: (see <http://researchintegrity.asu.edu/animals/forms> for a more complete description of the below categories)

Classification B: Includes animals that are used solely for breeding or are being acclimatized or held for use in teaching, testing, experiments, research, or surgery but have not yet been used for such purposes.

Classification C: Includes the use of animals in procedures involving no, momentary, or slight pain or distress (e.g., non-invasive parenteral drug delivery, peripheral blood collection, euthanasia, short-term manual or chemical restraint, toe clipping).

Classification D: Includes the use of animals used in procedures that could cause pain or distress but appropriate anesthetics, analgesics, and/or tranquilizing drugs or other methods for relieving pain or distress are used (e.g., surgery, perfusion, administration of irritating chemicals, humane endpoint euthanasia).

Classification E: Includes the use of animals in procedures that have the potential to involve pain or distress that will **not** be relieved with anesthetics, analgesics, tranquilizer drugs, or other method for relieving pain or distress (e.g., negative conditioning, unrelieved post-surgical pain, death without euthanasia).

DETAILED USE OF ANIMALS

This section must be completed for each species used.

(additional Detailed Use of Animals forms can be found at <https://researchintegrity.asu.edu/animals/forms>)

Common Name: Common Marmoset

Scientific Name: *Callithrix jacchus*

I. ANIMAL INFORMATION

A. Is this a threatened or endangered species?

☒

No. Proceed to section I. B.

☐

Yes. Describe why this work must be done on this species and why the project will not have a significant negative impact on the species:

B. Maximum # of animals to be used over the 3-year life of the protocol: 20

C. Sex: M/F Age or Weight Range: 0 months-15 years

D. Source (e.g., commercial, in-house breeding, captured from wild): Commercial or outside investigator or in-house breeding

E. List all labs and/or rooms **outside of the ASU centralized vivaria** where you intend to keep or use live animals in connection with the animal use covered under this protocol. This list is for IACUC information to assure each location is inspected semi-annually. **Listing rooms here does not assure approval of this space for use.**

Building	Room #	Max Length of Stay	Method of Transport	Purpose

F. If you use DEA-controlled substances, list the location where they are stored (building and room number). If you acquire controlled substances from DACT for same day use, state this. The IACUC is required to inspect all controlled substance storage locations semi-annually. They are located in a locked drug cabinet in our lab,

room

II. MAJOR CATEGORIES OF USE

A. Will animals be immunized solely for the production and harvesting of antibodies to be used in vitro rather than as a vaccine study?

☒

No. Proceed to section II. B.

☐

Yes. Complete the following table.

Injection:

Volume of injectate	Adjuvant	Route	Min. Frequency	Max. # of injections

Collection: If terminal, check here ☐ otherwise complete the following.

Route	Max. Volume	Min. Frequency	Max. # of collections

B. Will tissues, blood, or other body fluids be harvested (other than for antibody production)?

☐

No. Proceed to section II. C.

☒

Yes. Will tissues, blood, or other body fluids be collected post-mortem only?

☒

Yes. Proceed to section II.C.

☐

No. Complete Appendix 1: Antemortem Specimen Collection.

C. Will animals be food restricted (calorically or specific constituents) other than for surgical procedures?

☐

No. Proceed to section II. D.

Institutional Animal Care and Use Committee (IACUC)

Office of Research Integrity and Assurance

Arizona State University

Animal Protocol Review

ASU Protocol Number: 21-1866R RFC 1
Protocol Title: Behavioral and Physiological Studies of Auditory Perception
Principal Investigator: [REDACTED]
Date of Action: 8/31/2021

The animal protocol review was considered by the Committee and the following decisions were made:

**The request for changes was administratively approved to add [REDACTED]
[REDACTED] as additional personnel to the protocol.**

NOTE: If you have not already done so, documentation of Level III Training (i.e., procedure-specific training) will need to be provided to the IACUC office before participants can perform procedures without supervision. For more information on Level III requirements see [https://researchintegrity.asu.edu/animals/training, or contact Research Support Services within DACT at \[REDACTED\]](https://researchintegrity.asu.edu/animals/training, or contact Research Support Services within DACT at [REDACTED])

Additional requirements:

- ☐ This protocol requires that Research Support Services group within DACT provide supervision for the first time a procedure is conducted. Contact [REDACTED] to schedule.
- ☐ This protocol indicates that there are surgical procedures. A surgical checklist may be required to be submitted to Research Support Services within DACT [REDACTED] prior to starting surgeries.
- ☐ Other requirements:

Total # of Animals: 20
Species: NHP Pain Category: C – 2
Species: NHP Pain Category: D – 18

Protocol Approval Period: 7/22/2021 – 7/21/2024

Sponsor:
ASU Proposal/Award #:
Title:

Signature: [REDACTED]
IACUC Chair or Designee

Date: 9/1/2021

Cc: IACUC Office
IACUC Chair

Institutional Animal Care and Use Committee (IACUC)

Office of Research Integrity and Assurance

Arizona State University

Animal Protocol Review

ASU Protocol Number: 21-1866R RFC 2
Protocol Title: Behavioral and Physiological Studies of Auditory Perception
Principal Investigator: [REDACTED]
Date of Action: 4/25/2022

The animal protocol review was considered by the Committee and the following decisions were made:

The request for changes was approved by Designated Review to revise the euthanasia section of the protocol.

NOTE: If you have not already done so, documentation of Level III Training (i.e., procedure-specific training) will need to be provided to the IACUC office before participants can perform procedures without supervision. For more information on Level III requirements see <https://researchintegrity.asu.edu/animals/training>, or contact Research Support Services within DACT at [REDACTED]

Additional requirements:

- ☐ This protocol requires that Research Support Services group within DACT provide supervision for the first time a procedure is conducted. Contact [REDACTED] to schedule.
- ☐ This protocol indicates that there are surgical procedures. A surgical checklist may be required to be submitted to Research Support Services within DAC [REDACTED], prior to starting surgeries.
- ☐ Other requirements:

Total # of Animals: 20
Species: NHP Pain Category: C – 2
Species: NHP Pain Category: D – 18

Protocol Approval Period: 7/22/2021 – 7/21/2024

Sponsor:
ASU Proposal/Award #:
Title:

[REDACTED]

Signature: [REDACTED]
IACUC Chair or Designee

Date: 4/29/2022

Cc: IACUC Office
IACUC Chair