

IACUC Meeting Minutes West Campus January 21, 2020

The Institutional Animal Care and Use Committee (IACUC) met **1:30 PM –2:00 PM** in the at West Campus.

The meeting was called to order at 1:30pm. A quorum was present and the committee was properly constituted.

Welcome & Introductions: None

Review of Last Month's Minutes:

MOTION: The motion was made and seconded to approve the IACUC minutes as written for the December IACUC meeting. The IACUC voted to approve the motion. (12-In favor, 0-Opposed, 0-Abstained)

Full Committee Review:

Protocol #	Reviewers	PI	Title	Type of Submission	Expiration Date	Reason for FCR
None						

IACUC Policies & Standard Procedures: None

DCM SOPs:

- VC-030 Controlled Substances
 - o Initially reviewed at the December IACUC meeting
 - o Returned to the IACUC for a vote

Motion: The motion was made and seconded to approve the SOP as written. The IACUC voted to approve the motion. (12-In favor, 0-Opposed, 0-Abstained)

An IACUC member joined the meeting

OLAW Correspondence:

- Incident at CWC
 - The IACUC was informed that an investigation had begun regarding daily observations of animals at the Central and Waterfront Campus.
- Incident at WC
 - o The Director reported that an investigation had been initiated to determine if analysesics were appropriately administered to a cohort of animals undergoing cerebral spinal fluid aspirations.
 - The investigation is on-going and additional information will be provided at the February IACUC meeting.

Update from IACUC Office:

- Semiannual Inspection (draft) Report to IO
 - o Provided to the Committee for review
 - o Signature page will be provided at the February IACUC meeting
- OLAW Annual Report ready for chair & IO signatures (due January 31)

DCM Update:

- Construction update
 - o Current projects are on track
 - o Awarded new construction grant
 - o Potential animal welfare concerns are addressed as the plans are designed
 - Animals are monitored accordingly
- Staffing updates
 - o Resources & Logistics Manager is leaving
 - New hire is currently in training

IACUC Continuing Education:

• The IACUC office presented a training on *Conflict of Interest*

Next Meeting: February 18, 2020

Adjournment: 2:00pm



IACUC Meeting Agenda West Campus February 18, 2020

The Institutional Animal Care and Use Committee (IACUC) met 1:30 PM – 3:30 PM in the at West Campus.



The meeting was called to order at 1:30 pm. A quorum was present and the committee was properly constituted.

Welcome & Introductions:

None

Review of Last Month's Minutes:

MOTION: The motion was made and seconded to approve the IACUC minutes as written for the January 2020 IACUC meeting. The IACUC voted to approve the motion. (6-In favor, 0-Opposed, 4-Abstained)

Full Committee Review:

Protocol #	Title
IP02565	Effect of obesity on HIV pathogenesis, antiretroviral therapy, and metabolic comorbidities

Overview: This study examines increased risk of diabetes in HIV patients using control and obese animals. The modification proposes to increase the number of biopsies performed and the number of tissue samples obtained during each biopsy.

Discussion: A member with previous experience performing multiple colon biopsies indicated there is no concern with the increase in biopsies performed or the number of samples taken during each procedure. Multiple procedures are performed under the same anesthetic episode when possible to reduce stress in the animals.

There was a discussion about an animal that was euthanized on this protocol. The necropsy report was inconclusive regarding the loss of rectal tissue integrity. The animal had SIV and was obese, which may have been contributing factors. Age may also have been a contributing factor; this animal was approximately 16 years of age, and the new cohort added via this modification will be approximately 6 years of age. Since the euthanasia of this animal, the surgical approach has been modified and tissue samples are obtained from a different section of the colon.

<One IACUC member joined the meeting>

The PI should clarify from what area of the colon biopsies will be obtained, and if the newly added younger cohort of animals will undergo different procedures than the older cohort. Additionally, if specific surgical techniques will no longer be performed, those references should be removed from the protocol.

<Two voting members recused themselves>

Motion: The motion was made and seconded to send the protocol to Designated Member Review. The IACUC voted to approve the motion. (12-In favor, 0-Opposed, 1-Abstained)

Protocol #	Title
IP02595	Molecular Imaging of Chemical Threats and Countermeasures

Overview: Initial protocol is a pilot study that will evaluate the efficacy of imaging procedures at detecting specific chemical agents in the body.

Discussion: The reviewers noted that the IACUC protocol was straightforward and well-written, and that animals return to the colony at the end of the study. Side effects to the agent used are not anticipated; however, an antidote will be available and administered by DCM staff if necessary.

Motion: The motion was made and seconded to approve the protocol as written. The IACUC voted to approve the motion. (13-In favor, 0-Opposed, 0-Abstained)

Protocol #	Title
IP02966	Therapeutic Interfering Particles as Therapy for HIV

Overview: Initial protocol that will study viral suppression of SHIV-infected rhesus macaques. Similar studies have been performed successfully in mice and, if successful in non-human primates, may lead to development of novel treatment for HIV in humans.

Discussion: The PI should clarify whether biopsies will be performed by DCM or IDR staff. Additionally, minor clarification regarding animal numbers and a typo regarding restraint should be addressed. It was noted that animals on this protocol are handled multiple times daily and are well-acclimated to study staff and, for animals under 180 days of age, rarely require sedation for minor routine procedures.

<A voting member recused themselves>

Motion: The motion was made and seconded to send the protocol to Designated Member Review. The IACUC voted to approve the motion. (13-In favor, 0-Opposed, 0-Abstained)

IACUC Policies & Standard Procedures:

- Transfer Stations and Biologic Safety Cabinets Certification
 - o Minor edits were made during the meeting.

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (10-In favor, 0-Opposed, 0-Abstained)

• Humane Intervention and Endpoints for Laboratory Animals (reformat)

Motion: The motion was made and seconded to approve the standard procedures as written. The IACUC voted to approve the motion. (10-In favor, 0-Opposed, 0-Abstained)

- Modifications to an Animal Research Protocol
 - o Minor edits were made during the meeting.
 - o It was clarified during the meeting that, while a modification may be eligible for VVC review, it is at the discretion of the veterinary reviewer whether to escalate the review to designated member or full committee review.

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (10-In favor, 0-Opposed, 0-Abstained)

- Surgery, Multiple Survival
 - o Minor edits were made during the meeting.

<One IACUC member joined the meeting>

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

• Pathogen Screening of Biological Material to be introduced into Rodents

Motion: The motion was made and seconded to approve the standard procedures as written. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

OLAW Correspondence:

- Mitigation plan in the works for missed analgesics
 - o A cohort of animals did not receive a dose of post-operative analgesia on the day following a procedure. Analgesics providing 24 hours of pain relief were given during the procedure. Animals were observed by staff multiple times on the second and third day following the procedures and no pain or discomfort was noted. This incident was self-reported to OLAW.
 - O Procedures are programmed into a computer program which then reports the appropriate postoperative treatment regimen. It was determined that a user error occurred while programming the study parameters which led to this miscommunication and the missed dose. The error has since been addressed and multiple test parameters have been run to ensure similar miscommunications will not occur in the future.
 - o Minor edits were made to the formal letter to OLAW providing additional information regarding the incident and its resolution.

Motion: The motion was made and seconded to approve the letter with edits. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

Update from IACUC Office:

- Expanding period of facility inspections to April/May and Oct/Nov
- Signing of Semiannual Report to IO
 - o A recent visit by the VMO to the CWC noted an exception to the *Guide* was not reported, which necessitated an amendment to the USDA report.
 - o The report to the IO was updated to include the following:
 - Use of expired epinephrine in the event of an emergency.
 - An extended period for the disinfection of enclosures of newly formed NHP groups.
 Performance parameters for the efficacy of sanitation without use of disinfectantchemicals is currently being gathered for analysis.
 - The allowance for infant/parent pairs to remain group-housed for an extended period of time in an effort to reduce the number of times animals are relocated to a different enclosure and therefore reduce stress to the animals.
- Unaffiliated member attendance: good news!

o It was acknowledged that unaffiliated IACUC members at OHSU have a high attendance rate at meetings, which is appreciated by IACUC leadership.

DCM Update:

- Construction updates
 - o Work on one of the animal enclosures will be completed by 3/1/2020, after which point animals may be housed there.
 - o Work on an outdoor housing project is anticipated to be completed by 5/1/2020.
 - o Plans are underway to submit another construction grant to establish 12 new units that will house up to 150 animals for breeding purposes.
- Epinephrine shortage over
 - o New epinephrine has been ordered and expired supplies will be discarded.

Next Meeting: March 17, 2020

Adjournment: 3:30



West Campus March 17, 2020

The regular meeting is scheduled from 1:30 PM – 4:30 PM via teleconference.

The meeting was called to order at 1:29 pm. A quorum was present and the committee was properly constituted.

Welcome & Introductions:

□ None

Review of Last Month's Minutes:

MOTION: The motion was made and seconded to approve the IACUC minutes as written for the February 2020 IACUC meeting. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 3-Abstained)

Full Committee Review:

Protocol #	Title
IP02927	Testosterone and HFD Impact on Guinea Pig Metabolism
on infertility. T	nea pig study that examines the link between levels of androgens and obesity and their effects he hypothesis is that high fat diets and high levels of androgens contribute to infertility. Animals eatment with different combinations of high fat diets and androgens and the effects will be time.
	e Researcher needs to clarify how many animals are needed to achieve statistical significance. needs to be clear which animals undergo which treatments.

The Researchers should include any adverse outcomes that may occur with the high fat diet.

Motion: The motion was made and seconded to send the protocol to Designated Member Review. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained)

Protocol #	Title
IP03018	The impact of maternal RYGB on offspring

Overview: A new protocol to investigate the effects of a high fat diet on gastric bypass. The protocol includes both adults and offspring, the use of metabolic chambers, and DEXA scans throughout the study. There are 3 groups which include 36 breeding females and 8 males with the hope of getting 48 offspring. Discussion: DCM staff confirmed that the proposed diet has all necessary components and has been used thoroughly with minimal effects on animals. **Motion:** The motion was made and seconded to approve the protocol as written. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained) Protocol # Title IP03064 Evaluation of COVID-19 Pathogenesis, Vaccination and Therapy Overview: Initial study on the pathogenesis of COVID-19 and potential of vaccination therapy. First goal is to develop a primate model of COVID-19. The project will take place at with pilot animals used as controls for the later vaccine therapy phase. Ongoing studies at other institutes will provide background and knowledge for the experiments planned. **Discussion:** Both rhesus and cynomolgus macaques may be needed based on the pathogenesis in the different species. However, the use of Cynomolgus would follow studies with Rhesus and could be requested at a later time if needed. An approved plan must be in place for accidental exposure to the virus or samples and all new personnel need to be trained by the Biosafety Officer for proper practices. *<One non-voting member recused themselves>* **Motion:** The motion was made and seconded to send the protocol to Designated Member Review. The IACUC voted to approve the motion. (13-In favor, 0-Opposed, 0-Abstained) **IACUC Policies & Standard Procedures:** ☐ Review & Reporting of Animal Welfare Concerns ☐ Transportation of Rodents on OHSU Campus **Motion:** The motion was made and seconded to approve the policies as written. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained) Standard procedures/surgeries (3 year) □ 105 NHP Thymectomy ☐ Splenectomy (New) ☐ Submental blood collection (New) □ 0096 Carotid Artery Infusion ☐ **Motion:** The motion was made and seconded to approve the standard procedures. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained) □ 0064 Ketamine/Isoflurane □ 106 NHP Leukapheresis □ NHP Intravenous (IV) Administration of Agent(s) (New) □ NHP Subcutaneous (SC) Administration if Agent(s) (New)

voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained)
DCM SOPs (IACUC to vote on): GL-087 NHP project assignments and releases
Motion: The motion was made and seconded to defer the new SOP until April. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained)
OLAW Correspondence: ☐ Central campus correspondence ☐ Deviation from the standards of the <i>Guide</i>
Update from IACUC Office: ☐ New format for 2 Day list ☐ SB638 update ☐ Reminder of OHSU adoption policy
DCM Update: □ COVID-19 prep □ Construction updates
IACUC Continuing Education: □ OLAW Guidance on Use of Telecommunications for IACUC Meetings
Next Meeting: April 21, 2020
Adjournment: 3:18 pm



IACUC Meeting Minutes West Campus April 21, 2020

The Institutional Animal Care and Use Committee (IACUC) met 1:30 PM – 4:00 PM via videoconference.

The meeting was called to order at 1:30pm. A quorum was present and the committee was properly constituted.

<u>Welcome & Introductions:</u> A new voting member was introduced. It was also announced that a current voting member will no longer serve on the IACUC after this month.

Review of Last Month's Minutes:

MOTION: The motion was made and seconded to approve the IACUC minutes as written for the March 2020 IACUC meeting. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 1-Abstained)

Full Committee Review:

IP00367 0492 - Non-Human Primate Maintenance and Production Program

Overview: This modification proposes to change the minimum weaning age from 150 days of age to 120 days of age in the Expanded Specific Pathogen Free (ESPF) animal group in an effort to increase the number of lymphocryptovirus (LCV)-negative animals produced. It is important to produce a sufficient number of LCV-negative animals because they are essential for research on such diseases as nasopharyngeal carcinoma and Non-Hodgkin's lymphoma.

ONPRC has previously attempted to derive LCV-negative infants by weaning infants at 180 and 150 days of age; however, this approach was unsuccessful. The strategy is to avoid weaning infants as early as 72 hours, as it has been reported by other institutions that doing so has not led to a suitable adult model. The ONPRC has also attempted to breed LCV-negative animals obtained from another institution, but those breeding attempts were unsuccessful. Artificial insemination has also been unsuccessful. Once a closed colony has been established, weaning could take place at an older age.

The modification proposes the use of caging that supports the needs of infants and will enable pairs to be weaned together to encourage normal social behaviors. A dedicated team of behavioral scientists monitors the infants daily and provides a wide assortment of enrichment items. The team also evaluates animals to determine if they could be candidates for successful weaning. The behaviorists determine whether an animal may be weaned at a specific age as stated in the protocol. If the infant seroconverts despite early weaning, the infant may be returned to the dam or assigned to another study.

The PI should provide a broader range of ages to allow for flexibility in social housing infants that are close in age. Animal numbers should be updated to indicate ten infants (five social pairs) will be used in a pilot study to determine whether weaning at approximately 120 days of age is an acceptable strategy for developing the ESPF colony. If the strategy is unsuccessful, the protocol will come back to the Committee for further review.

Motion: A motion was made and seconded to send the modification to Designated Member Review (DMR). The IACUC voted and approved the motion. (12-For, 0-Against, 0-Abstained)

IACUC Policies & Standard Procedures:

- Tissue Collection for Genotyping Genetically Altered Mice and Rats
 - o Policy due for 3-year review
 - o Minor edits were made during the meeting

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

- 0095 Amniocentesis
 - o Policy due for 3-year review
 - o Minor edits were made during the meeting

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

- 0097 Epididymal Aspiration
 - o Policy due for 3-year review
 - o Minor edits were made during the meeting

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

- 0064 Ketamine/Isoflurane
 - o Policy due for 3-year review
 - o Minor edits were made during the meeting

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

- 106 NHP Leukapheresis
 - o Policy due for 3-year review
 - o Minor edits were made during the meeting

Motion: The motion was made and seconded to approve the standard procedures with edits. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

- NHP Intravenous (IV) Administration of Agent(s) (New)
 - o New procedure for review

Motion: A motion was made and seconded to table the standard procedure until veterinary staff confer and agree upon the most appropriate language for this procedure. The IACUC voted and approved the motion. (11-For, 0-Against, 0-Abstained)

- NHP Subcutaneous (SC) Administration if Agent(s) (New)
 - o New procedure for review

Motion: A motion was made and seconded to table the standard procedure until veterinary staff confer and agree upon the most appropriate language for this procedure. The IACUC voted and approved the motion. (11-For, 0-Against, 0-Abstained)

OLAW Correspondence:

- OLAW has indicated that semi-annual inspections may be postponed in an effort to minimize the spread of COVID-19.
 - o OHSU has received a waiver for the April/May inspection period.
 - o OLAW expects postponed inspections to be conducted per the usual schedule when normal operations resume.
 - o USDA has indicated they will not conduct inspections if there are concerns of increased health risks to humans or animals.
- Program review as planned
 - o Program evaluation will proceed as per the usual schedule and the outcome related to the IO in August.
 - o The program review may involve some interviews with staff and additional discussions via subcommittee.
- Mitigation plan for drain covers in sheltered housing
 - o This incident was reported to OLAW in March.
 - o There is no evidence of negative impacts on the animal and it has fully recovered from the incident.
 - o This letter is the final report and provides OHSU's response to the incident and a mitigation plan, which includes:
 - Retraining of staff involved with the incident and addressing this issue with all husbandry staff responsible for washing the sheltered housing areas.
 - Modifying husbandry practices to include verification that drain covers are properly in place prior to reintroduction of animals to an area.
 - A working group has been appointed to review the design of the drain covers to see if it is possible to redesign them in such a way that allows sanitization of the enclosure without requiring the drain cover to be opened.

Motion: The motion was made and seconded to approve the letter as written. The IACUC voted to approve the motion. (11-In favor, 0-Opposed, 0-Abstained)

Update from IACUC Office:

- IACUC office staffing
 - o An IACUC analyst who previously gave notice has decided to remain at OHSU in her current position
- Animal Research Task Force
 - O Convened to review exceptions to shutting down animal research at the central and waterfront campuses; previously met four times a week, now meeting once a week
 - Over 80 exemption requests have been reviewed
- Updates on eIACUC landing page

- Links are provided to the O2 page for up-to-date official OHSU recommendations related to the research community and to the COVID-19 Study Registration Form for those who wish to conduct COVID-19 research during modified operations
- IACUC office working remotely
 - o Currently fully staffed and processing protocols as usual
 - o Working on Dev cycle for updates to the eIACUC form

DCM Update:

- Update on Modified Operations
 - o DCM focus is on maximizing social distance, staggering start and break times for staff.
 - o Initiated staff testing of COVID-19 for staff who come into direct contact with animals; no positive tests have been recorded.
 - o Multiple animals have been provided to NIH specifically for COVID-19 research
- Colony update
 - o One of the large breeding groups has been brought in from the corrals.
- ePen data
 - O Update on the exemption for sanitizing ePens every 28 days instead of every 14 days for animals that require additional time to adapt to using the transfer tunnel to move between cages.
 - o ATP data was collected from two groups at multiple time points and from multiple areas of the cage. It was observed that 78% of the bioload accumulates in the first 14 days. No clinical cases appeared to be associated with the extended sanitation schedule and no negative impacts on animal health or welfare were observed.
 - ONPRC will continue collecting ATP data in cases where an extended sanitation schedule is necessary to allow animals more time to acclimate to the transfer tunnels and therefore reduce stress during transport and cage changing.
- Social housing report **
 - o 83% of population is socially housed
 - o 44% of single housed animals are currently on a study
 - o Percentage of animals waiting to be paired is slightly higher due to modified operations

IACUC Continuing Education: none

Next Meeting: May 19, 2020

Adjournment: 4:00 pm



IACUC Meeting Minutes West Campus May 19, 2020

The Institutional Animal Care and Use Committee (IACUC) met 1:30 PM – 4:00 PM via videoconference.

The meeting was called to order at 1:30pm. A quorum was present and the committee was properly constituted.

Welcome & Introductions: none

Review of Last Month's Minutes:

MOTION: The motion was made and seconded to approve the IACUC minutes with edits for the April 2020 IACUC meeting. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained)

- Update to minutes format
 - o Administrative actions have been removed from the minutes as they do not reflect discussion at a convened meeting
 - o Reminder to the committee that administrative items can be called for full committee review

Full Committee Review:

IP03044 | Cervix xenografts

Overview: Straightforward protocol creating an endocervical xenograft mouse model to study hormonal regulation of epithelial cells. There are two groups of animals that will receive an estrogen implant and endocervical xenografts from Rhesus macaques. The second group will receive a progesterone implant.

Reviewers felt that the protocol was well written and thorough. No animal welfare concerns were identified.

Motion: A motion was made and seconded to approve the protocol as written. The IACUC voted and approved the motion. (14-For, 0-Against, 0-Abstained)

IP03108 SARS-CoV-2 Spike Vaccines

Overview: New protocol looking at immunogenicity in non-human primates. The protocol will use spike proteins from SARS-CoV-2 and no live virus challenge will be performed at this time. Procedures include immunization, blood collections, and tissue sampling. All animals are returned to colony at the end of the study.

The Reviewers requested changes to the protocol including clarifying the number of bone marrow aspirates, route of administration of the protein, and listing possible effects of the protein.

<An IACUC member left the meeting>

Motion: A motion was made and seconded to send the protocol to Designated Member Review (DMR). The IACUC voted and approved the motion. 13-For, 0-Against, 0-Abstained)

<An IACUC member rejoined the meeting>

IP02599 Can we treat macaques after wtYFV infection?

Overview: Initial protocol looking at therapies for Yellow Fever virus. The protocol will test whether antibodies decrease the replication of the virus.

Reviewers felt that the protocol was straightforward and well written. The PI should clarify the period of blood sampling before infection. The veterinarian noted that using ALT levels as an indicator of liver health is a refinement that will promote animal welfare.

PI also needs to update the search for alternatives page to include methods for administering agents. The IACUC discussed the use of therapies for immune reactions. No adverse reactions are anticipated. If needed, these agents would be part of clinical care and not part of the research project.

<An IACUC member left the meeting>

Motion: A motion was made and seconded to send the protocol to Designated Member Review (DMR). The IACUC voted and approved the motion. 13-For, 0-Against, 0-Abstained)

<An IACUC member rejoined the meeting>

IACUC Policies & Standard Procedures:

- NHP Intravenous Administration of Agents
 - o Add sedated in the title
- NHP Subcutaneous Administration of Agents (sedated)
 - o Acclimation period for animals to receive daily subcutaneous administration
- NHP Subcutaneous Administration of Agents (unsedated)

Motion: The motion was made and seconded to approve the standard procedures as written. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained)

DCM SOPs: none

OLAW Correspondence:

- Update on Assurance
 - o OLAW requested clarifications on training and IACUC membership regarding non-affiliated members serving on both IACUCs

Update from IACUC Office:

- Changes in IACUC office staffing
- Changes in IACUC membership
- Public records requests
 - o FBR link

DCM Update:

- Return to Research: West Campus plan
- DCM Commons move
- DCM Compassion Fatigue and Resiliency Committee
- NHP Behavioral Management Plan annual updates were presented

Motion: The motion was made and seconded to approve the plan as written. The IACUC voted to approve the motion. (14-In favor, 0-Opposed, 0-Abstained)

- Webinar: "How Animal Rights Activists Are Leveraging the COVID-19 Pandemic and Why Research Organizations Should Pay Attention"
- presentation on compassion fatigue May 29 1:30pm
 Invitation will be posted on PBG weekly research message

Next Meeting: June 16, 2020

Adjournment: 2:45