

Institution	Oklahoma State University - Center for Health Sciences
Meeting Date	Thursday, January 15 2026
Meeting Time	10:00 AM
Meeting Type	Hybrid Meeting

IBC Members Present	Name	Role	Attendance
	Dr. Gerwald Koehler	Committee Chair	Absent
	Dr. I-Hsiu (George) Huang	Scientific Member	Present
	Dr. Sue Katz Amburn	Non-affiliated Member	Present
	Dr. Crystal (Niki) Johnson	Scientific Member	Present
	William (BJ) Reddig	Lab representative	Present
	Dr. Fang (Fiona) Liu	Non-affiliated member	Present
	Dr. David Wallace	Animal Expert	Present
	Jennifer Nangle	Non-Affiliated Member	Present
	Dr. Vikram Gujar	Alternate Member - Affiliated Scientist	Present, voted as a scientific member.
Quorum	Quorum is met. The IBC has eight (8) voting members present, and four (4) voting members are required to conduct business.		

Others in Attendance	Name	Affiliation	Title
	Kadin Falkensten	Oklahoma State University - Center for Health Sciences	Research Compliance Coordinator, Biosafety Officer

Call to Order	Dr. Wallace called this meeting to order at 10:00 AM.
Conflicts of Interest	Dr. Wallace asked all members present to identify any conflicts of interest with the materials that are to be reviewed. No members identified any conflicts of interest.

Discussion of previous minutes	Dr. Johnson had a question about a section in the previous minutes that only listed a motion with no second. Kadin explained that this was because there was no vote held, but a general consensus was concluded and the Chair made the call to move on with no vote on the protocol in questions as there were too many changes to consider a vote. No other points of discussion were had regarding the previous meeting's minutes. BJ Reddig moved to approve the minutes as written, and Dr. Gujar seconded. All members were in favor of approving, with none opposed or abstaining.		
Review and Approval of previous meeting minutes	Date of previous meeting Thursday, December 18 2025	Motion Approve	Votes; for/against/abstain 8/0/0

Review of Prior Business	Business	Review and Discussion
	Report of pending/outstanding protocol(s)	No prior business was discussed at this meeting.

New IBC Registrations and Amendments for Review		
Review of IBC-00001251		
PI Name(s)	Dr. Jacob Manjarrez	
Registration Title/Number	Caenorhabditis elegans Molecular Mechanisms of Stress, Aging, and Resilience	IBC-00001251

Project Overview

The nematode *Caenorhabditis elegans* (*C. elegans*) is an ideal system for linking molecular biology, neural circuitry, host-microbe interactions, and health. With only 302 neurons, *C. elegans* display a wide repertoire of intelligent-seeming behaviors: searching for food, following gradients, avoiding toxins, responding to touch, and locating mates. These activities rely on conserved neural and molecular pathways, making the worm a powerful entry point for studying decision-making, stress resilience, and disease mechanisms. For this study, several agents will be used alongside the *C. elegans* nematode including *Lactococcus lactis* (bacteria), *Leuconostoc massenteroides* (bacteria), *Pseudomonas aeruginosa* (bacteria), and *Candida albicans* (fungus). These bacterial and fungus species will be grown and used to feed the *C. elegans* nematode and have a wild-type pathogenicity. No toxin genes are known to be present in any of the coding sequences of these agents. *Pseudomonas aeruginosa* has known mutations to delete the *edd* and *glpK* genes, which negatively affects the biofilm formation and metabolic versatility of the agent. In addition to these agents, *In vivo-jetPEI* will be used to assist in the transfection of plasmids into the *C. elegans* nematode. *In vivo-jetPEI* is a polyvalent polymer-based reagent that condenses nucleic acids into stable nanoparticles of approximately 20-80nm in diameter. Alongside these agents, over 280 plasmids will be used in this study to assist in the study of neural circuits within the *C. elegans* nematode. The vast majority of these plasmids will come from the Fire Lab *C. elegans* Vector Kit that is available through Addgene (<https://www.addgene.org/kits/firelab/>). These plasmids are intended to be used in conjunction with *In vivo-jetPEI* to transfect nucleic acids into *C. elegans*, allowing for their neural circuits to be visualized using high-resolution fluorescence microscopy. The plasmids used in this study include: pCFJ909; pCFJ910; pCFJ1201; pCFJ1202; pCFJ1200; pCFJ1272; pCFJ1273; pCFJ496; pCFJ914; pCFJ1208; pCFJ1209; pCFJ1324; pCFJ420; Peft-3::GFP::H2B; pCFJ421 - Pmyo-2::GFP::H2B; pCFJ601 - Peft-3 Moc1 transposase; pMA122 - peel-1 negative selection; pGH8 - pRAB-3::mCherry::unc-54utr; pCFJ90 - Pmyo-2::mCherry::unc-54utr; pCFJ104 - Pmyo-3::mCherry::unc-54; pJL44 - Phsp16.48::MosTase::glh-2utr; pCFJ906; pCFJ907; pCFJ908; pCFJ1000; pCFJ1001; pCFJ1002; pCFJ1258; pCFJ1259; GCaMP variants; RCaMP variants; GFP variants; RFP variants; YFP variants; BFP variants; DsRED variants; mKate variants; APP variants; Htt variants; alpha synuclein

	<p>variants; LRRK2 variants; TDP43 variants; Chr2 variants; NHpR variants; Arch variants; Mac variants; Queen-2m variants; Slo-3 variants; pBL6/mCherry; and pRS426 TEF/mCherry. A full list of all plasmids used in this study, along with their vector maps, can be found on the Addgene site for the Fire Lab C. elegans Vector kit, or by following this link (https://media.addgene.org/cms/filer_public/78/57/78573fd2-a987-42d3-9cda-ba073439cdd8/fire-lab-c-elegans-vector-kit-datasheets-and-maps-addgene.pdf).</p> <p>No intentional modifications will be made to any of the nucleic acid sequences used in this study. It is possible that unintended modifications are made within the C. elegans nematode as they are living organisms, however all agents and nucleic acid materials used in this study will be destroyed at the end of each experiment to prevent any unintended modifications from spreading or recurring. No host/vector systems will be employed in this study. The experimental manipulations in this study include working with animals (nematodes), culturing of bacterial species, culturing of fungal species, working with nanoparticles, administration of agents to animals (nematodes), and use of recombinant or synthetic nucleic acids. The proposed biosafety level of this experiment is Biosafety Level 2.</p>
NIH Guidelines Section	III-D-4-a, III-D-4-b, III-D2, III-D4, III-F2, III-F3, III-F6
Risk Assessment and Discussion	<p>Risk Assessment: Animals with biohazards (non-vertebrate species), generation of splashes possible, sprays or aerosols from centrifugation possible, use of nanoparticles</p> <p>Discussion: No additional discussion was held regarding the hazardous procedures</p>
Training	All personnel listed on this application have completed the minimum required lab safety training courses, including Lab Chemical safety, Bloodborne Pathogens training, and Laboratory Biosafety training. Additionally, all personnel have documented in-lab training for specific procedures that are carried out in each individual lab.
Additional Training	No additional training was outlined for this protocol.

Occupational Health Representative Review (if applicable)	No additional occupational health concerns were noted for this protocol.	
Biosafety Level Assignment	Biosafety Level:	2
	Additional Discussion or notes:	No additional discussion was held regarding the biosafety level.
IBC Vote	Motion:	Defer registration pending additional information
		1st: Dr. Johnson 2nd: BJ Reddig
	Votes, for/against/abstain/recused:	8/0/0/0
	Notes:	The Committee determined to defer registration as additional information is required. The protocol will be returned to the PI for revisions, and will be reviewed at the next IBC meeting.

New Business	Topic	Discussion
		No New Business was brought up at this meeting
Additional/Other Business	No additional business was discussed at this meeting	

Review of Incidents	No incidents were reviewed at this meeting.
Inspections/Ongoing Oversight	No inspections or ongoing oversight were discussed at this meeting.

IBC Training	At this meeting, Kadin Falkensten performed a yearly overview of the last year in the IBC as well as reminding the members of when meeting are scheduled and the subission deadlines for meeting materials. Additionally, Kadin informed the Committee Members that he would be doing a brief educations session during the meetings going forward. Dr. Wallace also suggested that if any informative articles were found from agencies or other sources, these could be sent to the members as a form of continuing education as well.
Public Comments	No public comments were recorded at this meeting.
Adjournment	The IBC Chair moved to adjourn the meeting at 10:42 AM. The next IBC meeting is scheduled for Thursday, February 19 2026.