

IBC Meeting Minutes
8/14/2025
3:00pm TEAMS

Member Attendees: Rachel Spurbeck, John Keeny, Kelly West, Manju Kulkarni, Andrea McCue, Yun, Li, Jacqueline Grible, Craig Bartling, Samuel Harrison, Gary Carlin, William Ray Henson, Amber Singh, Gloria Sivko, David Glasbrenner

Guest Attendees: Carrie Howland

I. Application Reviews:

- **Application FY25-30**
 - **Study title: Delivery of full length dystrophin gene constructs to human skeletal muscle cells.**
 - **PI:** Gabe Meister
 - **PI and laboratory staff performing the research have been appropriately trained in the safe conduct of the research: Y**
 - **Applicable section of the NIH Guidelines: III-E**
 - **BSL-#2**
 - **Agent characteristics:** A non-pathogenic *Escherichia coli* will be utilized to propagate the plasmid which expresses a human protein and firefly luciferase and mCherry in mammalian cells.
 - **Types of manipulations planned:** transfection of cell line with polymeric nanoparticles containing expression plasmid
 - **Source(s) of the nucleic sequences (e.g., species):** human, firefly, *E. coli*
 - **Nature of the nucleic acid sequences (e.g., structural gene, oncogene):** structural gene
 - **Host(s) and vector(s) to be used:** Human iPSC-derived myoblasts and p37-2iDMD-LR
 - **Transgene expression:** yes
 - **Protein function:** muscle shock absorption
 - Motion to approve with modification of a BSO signature in biosafety section: Gary Carlin
 - Second: Yun Li
 - Outcome: All in favor

- **Application FY25-31**
 - **Study title:** Biosynthesis of Metal Organic Frameworks for Chemical and Biological Defense Solutions (BioMOF)
 - **PI:** William Ray Henson
 - **PI and laboratory staff performing the research have been appropriately trained in the safe conduct of the research: Y**
 - **Applicable section of the NIH Guidelines: III-D-2**
 - **BSL-#2**
 - **Agent characteristics:** non-pathogenic *E. coli*

- **Types of manipulations planned:** plasmid propagation and protein expression
- **Source(s) of the nucleic sequences (e.g., species):** *Pseudomonas putida* F1, *Comamonas testosteroni* T-2, *Streptomyces scabies* 87.22, *Priestia megaterium* NBRC 15308, and *Pseudomonas putida* KT2440.
- **Nature of the nucleic acid sequences (e.g., structural gene, oncogene):** genes encoding metabolic enzymes
- **Host(s) and vector(s) to be used:** hosts: *E. coli* DH5 α and *E. coli* BL21(DE3) vectors: pET + xylMAC, and pET + xylMAC-MBCD
- **Transgene expression:** yes
- **Protein function:**

Gene	Protein Function
<i>xylM</i>	Catalyzes the hydroxylation of the methyl side chain of xylenes and toluenes
<i>xylA</i>	Responsible for the transport of electrons from the electron donor NADH to the terminal hydroxylase component, XylM
<i>xylC</i>	Catalyzes the oxidation of benzaldehyde to benzoate and reduction of NAD ⁺ to NADH
<i>tsaM</i>	Catalyzes the reduction of p-toluic acid to 4-carboxybenzyl alcohol using NADH as an electron donor
<i>tsaB</i>	Iron-sulfur flavoprotein carrying electrons from NADH to the oxygenase TsaM
<i>tsaC</i>	Catalyzes the oxidation of 4-carboxybenzyl alcohol to 4-carboxybenzaldehyde and reduction of NAD ⁺ to NADH
<i>tsaD</i>	Catalyzes the oxidation of 4-carboxybenzaldehyde to terephthalic acid and reduction of NAD ⁺ to NADH
<i>txtE</i>	Nitrates l-tryptophan using the NO to produce the intermediate 4-nitro-l-tryptophan
<i>BM3R</i>	Redox partner to TxtE
<i>nfnB</i>	Catalyzes FMN-NADPH-dependent nitroreduction

- Motion to approve: Gary Carlin
- Second: Andrea McCue
- Abstained: William Ray Henson
- Outcome: All in favor

II. Old Business:

- Incident report: failure to obtain IBC approval prior to start of work- report accepted by NIH after updating the NIH Guidelines section to III-E.

III. New Business (review of incidents, inspections/oversight, IBC training, or additional topics):

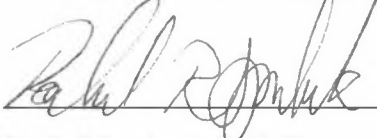
- b. Meeting minutes from the July meeting

- Motion to approve: Manju Kulkarni
- Second: William Ray Henson
- Outcome: All in favor


c. Update Application and Amendment templates to reduce confusion on what is exempt and what must be approved by the IBC prior to start of work

- Motion to approve updated Application: Gary Carlin
- Second: Craig Bartling
- Outcome: All in favor

Meeting adjourned at 3:38pm



Rachel Spurbeck, IBC Chair or



Date

Yun Li, IBC Co-Chair

Redaction Disclaimer: Information redacted includes trade secret information, other confidential commercial information, and specific information whose disclosure would directly compromise institutional or national security.

